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NEW YORK STATE JOURNAL OF MEDICINE

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Rudolph Virchow, M.D., (1821–1902). Pathologist, anthropologist and statesman who pioneered new concepts in pathology. Professor of pathological anatomy at the University of Berlin. (*Courtesy New York Public Library Picture Collection.*)

ANNUAL CME ASSEMBLY • June 26–28, 1981 • Niagara Falls Convention Center

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CONTRAINDICATIONS Hypersensitivity to aspirin or codeine

WARNINGS:

Drug dependence Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has t potential for being abused Psychic dependence physical dependence, and tolerance may develop upon repeated administr tion of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of oth oral, narcotic-containing medications Like other narcotic-containing medications, the drug is subject to the Federal Co trolled Substances Act

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for t performance of potentially hazardous tasks such as driving a car or operating machinery The patient using this drug shou be cautioned accordingly

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, gene anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concor tantly with Empirin with Codeine may exhibit an additive CNS depression When such combined therapy is contemplated, t dose of one or both agents should be reduced

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal developme Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potent benefits outweigh the possible hazards

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity, elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions a pre-existing increase in intracranial pressure Furthermore, narcotics produce adverse reactions which may obscure t clinical course of patients with head injuries

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis clinical course in patients with acute abdominal conditions

Allergic: Precautions should be taken in administering salicylates to persons with known allergies patients with na polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prost hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizzine sedation, nausea and vomiting These effects seem to be more prominent in ambulatory than in nonambulatory patients a some of these adverse reactions may be alleviated if the patient lies down Other adverse reactions include eupho dysphoria, constipation, and pruritus

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drov ness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspi Some patients are unable to take salicylates without developing nausea and vomiting Hypersensitivity may be manifested a skin rash or even an anaphylactic reaction With these exceptions, most of the side effects occur after repeated administ tion of large doses

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of patient It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain o those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The us adult dose for Empirin with Codeine No 2 and No 3 is one or two tablets every four hours as required The usual adult c for Empirin with Codeine No 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

Wellcome

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Research Triangle Park
North Carolina 27709

New York State Journal of Medicine (ISSN 0028-7628)

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1981 ANNUAL CME ASSEMBLY
June 26–28

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CME PROGRAMS (all Category I)
Technical Exhibits
Scientific Exhibits

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Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
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ontraindications: Glaucoma, prostatic hyper-ophy, benign bladder neck obstruction; hyper-ensitivity to chlordiazepoxide HCl and/or lidinium Bromide.

arnings: Caution patients about possible com-ined effects with alcohol and other CNS epressants, and against hazardous occupations equiring complete mental alertness (*e.g.*, operat-g machinery, driving). Physical and psychologi-al dependence rarely reported on recommended oses, but use caution in administering Librium® hlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression: suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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Letters to the Editor

Early medical photography in America (1839–1883); VI. Civil war medical photography

To the Editor: In reference to the article, part VI, Civil War medical photography by Stanley Burns, M.D., F.A.C.S., in your August, 1980, issue on page 1444 Dr. Burns states, "... the purpose of this report to fill the void and present a systematic study and overview of Civil War medical photography." Since it was his desire to make this report as complete as possible I would like to submit the following.

Page 1445: "Many of the noted galleries, particularly those of Brady, Anthony, and so forth ..." The Anthony Company was a photographic distribution house, the largest of its kind and not a gallery like Brady, Fredericks, Gurney, or Bogardus. He (the Anthony Company) bought the negatives from these photographers and sold the images.

Page 1446: "Mathew Brady's fame came not only from his national portrait gallery of celebrities, but, also, from his concept of photographing the events of the war ...." It should be noted that both Brady and Gardner said it was their idea to photograph the Civil War. One of the reasons Brady produced so many photographs was that he had between 18 and 20 men working for him in the field.

"Brady soon became an official Army photographer, hiring assistants now legends in their own right." The only official photographer in the U.S. Army was Captain A. J. Russell, Construction Corps. U.S.M.R.R. There were official and unofficial photographers during the civil war. Brady was an unofficial photographer during the war which led to his heavy expenses and eventual bankruptcy.

"It is also of interest that some of the famous after-battle views of dead soldiers with which Brady and other photographers have achieved lasting fame were actually staged..." This is not so for Brady arrived at Gettysburg after the bodies were buried and did not photograph the Gettysburg dead. Gardner and O'Sullivan did and one photographer, Weaver, actually photographed live soldiers to appear as the dead.

Page 1451: "Figure 10, "Often the model 1840 medical sword was carried by hospital stewards." This is not so ... The 1840 medical officers' sword was to be carried by officers only. The hospital steward was equal to the rank of sergeant and was authorized to wear sergeant's epaulets and later sergeants' scales and carried the model 1840 noncommisioned officer's sword not the medical officers' sword.

Page 1458: "the majority were taken by U.S. Army photographers on contract or on active duty." I don't know what this means. The only Army photographer was Capt. A. J. Russell, Construction Corps, U.S.M.R.R.

It should be noted also that some of the Army hospitals had photographic galleries as part of the hospital or on the grounds of the installation.

Page 1458: In reference to Figure 13, the left hand carte de visite has a #7567.

It should be noted that this reference number has nothing to do with the identification of the carte for it was a code number of a fellow collector Dave O'Reilly, who had collected and eventually sold this carte de visite.

Page 1459: "taken by Army photographer William Bell." William Bell was not in the Army.

Page 1462: Bell left the AMM in 1872 and joined Timothy O'Sullivan as official photographers on Lt. Wheeler's Survey." T. O'Sullivan left the survey and Bell was the replacement photographer.

"Several General hospitals and camps had "Army photographers" available." The only photographer in the U.S. Army was Captain A. J. Russell; civilian photographers such as Gardner, O'Sullivan, Conley, and Cooley worked for the Army as official photographers distinguishing them from the unofficial photographer.

"I have found none of the clinical contributed photograph carte de visite in private collections to have official army photographers' logos." Once again this is because Captain Russell was the only official photographer in the U.S. Army during the Civil War. He reported to General Haupt and did most of his main work out of City Point, Va., not taking cartes de visite.

Page 1467: In reference to the sanitary commission and the four tipped in photographs of the returned union prisoners, there were at least 12 photographs taken, photographer unknown, eight of which were illustrated in the government report, 38th Congress, 1st session, Report No. 67, House of Representatives.

Page 1465: "It is, therefore, not surprising that photographs by Confederate cartes de visite photographers of any sort are rare." This is not so. By looking at the back of the cartes de visite one would find the names of many rebel photographers. They photographed in Union camps and on ships. Some used their Union photographs to aid the Confederacy. Lytle, Edward, and Cook were CSA photographers who were spies.

Since it was Dr. Burns intention to have published his part VI to be an accurate compendium, I am sure you will publish the above corrections.

WILLIAM GLADSTONE
Whippoorwill Lane
Westport, Connecticut 06880

Reply to Mr. Gladstone's comments

To the Editor: As it is the purpose of my series of articles to not only present my researches in American medical photography, but, also, hopefully, to stimulate the interest of others by creating an environment in which this most exciting historical field is appreciated, I more than welcome comments, queries, and, of course, new and accurate research in the field. In this spirit I welcome Mr. Gladstone's letter.

Mr. Gladstone does indeed add some new information, but for the most part, inadvertently, justifies the necessity for the classification of photographs and definition of terms

continued on page 8

Annotations of Books Received*

MEDICINE—EXAMINATION QUESTIONS

Barron's How to Prepare for the New Medical College Admission Test, MCAT. Third edition. By Hugo R. Seibel and Kenneth E. Guyer. Woodbury, N.Y., Barron's Educational Series, Inc. 287 pages. Paperback, $6.50.

A concise test preparation book.

NERVOUS SYSTEM

The Human Nervous System: Basic Principles and Neurobiology. Third edition. By Charles R. Noback, Ph.D. Illustrated by Robert J. Demarest. New York, McGraw-Hill Book Company, 1981. Illustrated, 591 pages. Hardcover, $24.

Recent advances in basic neuroanatomy and neurobiology incorporated into this new edition.

ADENOCARCINOMA

Renal Adenocarcinoma. Edited by G. Sufrin and S. A. Beckley. Geneva, Switzerland, International Union Against Cancer, 1980. UICC Technical Report Series, Volume 49. 215 pages. Paperback, Swiss Franks, 17. (Available from above organization at 3 Rue du Conseil General, Geneva, 1205.)

Report of the Workshop No. 10 on the Biology of Human Cancer.

GASTROINTESTINAL DISEASES

Infections of the Gastrointestinal Tract. Microbiology, Pathophysiology and Clinical Features. By Herbert L. DuPont and Larry K. Pickering. New York, Plenum Medical Book Company, 1980. Illustrated, 273 pages. Cloth, $24.50.

A review of the etiology, epidemiology, pathophysiology, diagnosis, and prospects of eventual control of the infectious enteric diseases.

COCCIDIOIDOMYCOSIS

Coccidioidomycosis: A Text. Edited by David A. Stevens, M.D. New York, Plenum Medical Book Company, 1980. Illustrated, 279 pages. Cloth, $28.50.

continued on page 9

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* Books received for review are acknowledged promptly in this column. No other obligation is assumed for the courtesy of those sending them for this purpose. Selection for review is made on the basis of merit and reader interest.

Indications and Usage: Management of anxiety disorders or short-term relief of symptom
anxiety or anxiety associated with depressive symptoms Anxiety or tension associated
stress of everyday life usually does not require treatment with an anxiolytic.
Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by syst
atic clinical studies. Reassess periodically usefulness of the drug for the individual patient

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucom

Warnings: Not recommended in primary depressive disorders or psychoses As with all C
acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished
erance for alcohol and other CNS depressants
Physical and Psychological Dependence: Withdrawal symptoms like those noted with ba
turates and alcohol have occurred following abrupt discontinuance of benzodiazep
(including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Ad
tion-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveilla
when on benzodiazepines because of their predisposition to habituation and depende
Withdrawal symptoms have also been reported following abrupt discontinuance of benz
azepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide
For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid c
sedation. Terminate dosage gradually since abrupt withdrawal of any antianxiety agent
result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia
occasional convulsions Observe usual precautions with impaired renal or hepatic func
Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that loraze
has not been shown of significant benefit in treating gastrointestinal or cardiovascular com
nent Esophageal dilation occurred in rats treated with lorazepam for more than 1 yea
6mg/kg/day No effect dose was 1.25mg/kg/day (about 6 times maximum human therape
dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 mo
of first observation. Clinical significance is unknown, but use of lorazepam for prolon
periods and in geriatrics requires caution and frequent monitoring for symptoms of upper
disease Safety and effectiveness in children under 12 years have not been established

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia, some have
elevations of LDH As with other benzodiazepines, periodic blood counts and liver function
are recommended during long-term therapy

CLINICALLY SIGNIFICANT DRUG INTERACTIONS Benzodiazepines produce CNS depres
effects when administered with such medications as barbiturates or alcohol

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerge
rats during an 18-month study No studies regarding mutagenesis have been performed.

PREGNANCY Reproductive studies were performed in mice, rats, and 2 strains of rab
Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastrosc
malformed skull and microphthalmia) were seen in drug-treated rabbits without relationsh
dosage Although all these anomalies were not present in the concurrent control group,
have been reported to occur randomly in historical controls. At 40mg/kg and higher, there
evidence of fetal resorption and increased fetal loss in rabbits which was not seen at l
doses Clinical significance of these findings is not known However, increased risk of con
tal malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam
meprobamate) during first trimester of pregnancy has been suggested in several stu
Because use of these drugs is rarely a matter of urgency, use of lorazepam during this pe
should almost always be avoided Possibility that a woman of child-bearing potential ma
pregnant at institution of therapy should be considered Advise patients if they become
nant to communicate with their physician about desirability of discontinuing the dru
humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam an
glucuronide

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like
benzodiazepines As a general rule, nursing should not be undertaken while on a drug s
many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and gene
disappear on continued medication or on decreasing dose In a sample of about 3,500 anx
patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.
weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression,
sea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms,
function disturbance, various gastrointestinal symptoms and autonomic manifestations.
dence of sedation and unsteadiness increased with age Small decreases in blood pres
have been noted but are not clinically significant, probably being related to relief of anxiety.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents
have been taken Manifestations of overdosage include somnolence, confusion and co
Induce vomiting and/or undertake gastric lavage followed by general supportive care, mon
ing vital signs and close observation. Hypotension, though unlikely, usually may be contr
with Levarterenol Bitartrate Injection U.S.P Usefulness of dialysis has not been determined

Ativan® (IV)
for (lorazepam)
Anxiety

Dosage: **Individualize for maximum beneficial effects. Increase d**
gradually when needed, giving higher evening dose before increas
daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosa
may vary from 1 to 10mg/day in divided doses. For elderly or deb
tated, initially 1-2mg/day; insomnia due to anxiety or transient sit
tional stress, 2-4mg h.s.

How Supplied: **0.5, 1.0 and 2.0mg tablets.**

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Why one benzodiazepine and not another? Are you concerned about long-acting metabolites? Many clinicians, as well as pharmacologists, are beginning to draw attention to this problem (see New England Journal of Medicine, April 5, 1979).

In contrast to some older benzodiazepines, Ativan (lorazepam) does not give rise to long-lasting active metabolites. As with all benzodiazepines, you should follow the usual precautions concerning co-administration with other CNS depressants and warn your patients against operating dangerous machinery and motor vehicles.

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Anxiety

continued from page 5

as presented within my article. In any field of study differences of opinion about what facts or events represent are expected but, by and large, Mr. Gladstone's letter is concerned with a difference of opinion caused by Mr. Gladstone's determination to restrict himself to today's standards rather than interpreting the events in question on 1860s contemporary terms, as my definitions did. I am pleased, however, that Mr. Gladstone's critical review of my paper, particularly considering the tremendous breadth of information covered, has revealed so few corrections.

Mr. Gladstone repeatedly maintained that Captain A. J. Russell was the only official Army photographer. It is true that Captain Russell currently is the only photographer that is documented to be an official photographer commissioned in the U.S. Army. The point that I make in my article, however, does not dispute this, but refers to a well-known fact that during the Civil War the War Department (Army) hired photographers for many purposes and generally these photographers were designated "official photographers." Their photographic wagons, in many cases, carried the designation "U.S. Army Photographer" and many had their printed logos with the words "Army photographer" on the back of their photographs. I had stated, as Mr. Gladstone noted, that I knew of no "clinical contributed cartes de visite in private collections to have official Army photographers logos." I have since found two such cards. In order to get some sort of clear picture and classification of Civil War medical photographs, I separated those hired and recognized by the Army as photographers, Bell, Wood Brothers, and so forth, from those who were not, and appropriately designated the former Army photographers, since they, in their own day, called themselves that. Nowhere did I state that these photographers were commissioned in the U.S. Army.

Mr. Gladstone's point concerning Anthony and Company (page 1445) is well taken. Anthony and Company was primarily a distribution house buying other photgraphers' negatives, but they also actually hired and sent many photographers to the field to take photographs for them. Men, such as Thomas C. Roche, originally one of Brady's operatives, took thousands of stereoviews for the Anthony Company. It is again a matter of opinion whether the specific context of the sentence should be considered a "gallery." In this instance I think so.

Mr. Gladstone's correction relating to the posing of after battle views of dead soldiers is in error (page 1446). He implies that I stated Brady posed soldiers at Gettysburg. I do not mention any specific battle where it occurred, only that it was done during the war by some photographers, including Brady.

Mr. Gladstone's correction on page 1451, concerning the model 1840 swords, I find most intriguing. The information he presents makes sense. However, one of my references for this information was Mr. Gladstone's own brief article in *Photographica*, volume 11, number 2, page 8, "photographs of doctors can be identified by the distinct medical officers sword, designated Model 1840 sword . . . (Hospital) Stewards had the rank of a noncommissioned officer, and usually wore a red sash and a model 1840 sword." Perhaps both Mr. Gladstone and I will be rewarded by someone writing a specific article on army medical swords as well as other identifying accoutrements.

I must amend Mr. Gladstone's correction to the paragraph entitled Confederate Medical photography (page 1465). Mr. Gladstone has taken the sentence he quoted totally our of context, ignoring the paragraph heading completely, as well as the total meaning of the paragraph. I would like to complete the quote: "and only scant photographic documentation exists of Southern war experience; they, in turn, were taken mainly at the onset of the war." As stated in the article: "the public could not afford to send photographers off to war to take pictures as souvenirs." It is true that there exists photographs taken by captured southern photographers of Union men and camps, and so forth. These, obviously, do not constitute photographs taken by Confederates of the Confederacy which was the subject of the paragraph.

Again I thank Mr. Gladstone for his detailed comments. I have replied to the ones I felt need clarification. We have some differences of opinion that can result only in continued clarification of the subject matter.

Since I have the opportunity I would like now to modify two of my own statements. First, I no longer believe that the patient in the picture on the front cover is General Sickles, although the surgeon holding the knife is definitely Dr. Calhoun. The reason for this opinion is that continued research has shown that Sickles operation was performed in the evening making it practically impossible that this photograph documents that particular operation. Further research is necessary to fully document this unusual photograph.

The other statement that requires modification reads . . . "only three states . . . had black regiments," for which Mr. Gladstone was the source. I have since learned that every union state had black regiments. Black troops were even raised from territories not yet in the union and from captured southern states. Eventually they were organized by the War Department into "U.S. Colored Troops" regiments without state identification. This topic is covered extremely well in Dudley Taylor Cornish's *The Sable Arm: Negro Troops in the Union Army, 1861–1865.*

There are several topics not covered in my paper as published and some of the material was abridged because of publishing constraints. A more complete discussion and many more hitherto unpublished photographs depicting early American medical photography will appear in my forthcoming book.

Again, I look forward to all coments and queries.

STANLEY B. BURNS, M.D.
30 East 60th Street
New York, New York 10022

Correction

Unfortunately, in the December, 1980, issue of the Journal, a grammatical error was allowed to be printed in the editorial "A tribute to whom tribute is due." In the second column, third line from the top, the line should read: *if for no other reason* **then** *for Henry's sake . . . .*

continued from page 6

A comprehensive text and reference source on this disease.

PATHOLOGY

Pathology Annual: Part II. 1980. Volume 15. Series Editors: Sheldon C. Sommers, M.D., and Paul Peter Rosen, M.D. New York, Appleton-Century-Crofts, 1980. Illustrated, 452 pages. Cloth, $35.50.

Second part of annual review of specific subjects in the field.

MEDICINE

Integrated Medicine. Volume II of a **Companion to the Life Sciences.** Edited by Stacey B. Day, M.D., Ph.D., D.Sc. New York, Van Nostrand Reinhold Company, 1980. Illustrated, 625 pages. Hardcover, $32.50.

An interdisciplinary approach to the medical and other health-related sciences.

DRUG THERAPY

The Pharmacological Basis of Therapeutics. Sixth edition. Edited by Alfred Goodman Gilman, M.D., Ph.D., Louis S. Goodman, M.D., and Alfred Gilman, Ph.D. New York, Macmillan Publishing Co., Inc., 1980. 1,843 pages. Cloth, $45.

An update of this basic reference text in pharmacology, toxicology, and therapeutics.

PEDIATRICS

Survey of Clinical Pediatrics. Seventh edition. By Edward Wasserman, M.D., and Donald S. Gromisch, M.D. New York, McGraw-Hill Book Company, 1981. 527 pages. Hardbound, $27.95.

To provide maximum information in minimum space, the guiding principle of the earlier editions is upheld and the contents updated.

GOITER, EXOPHTHALMIC

Graves' Disease. By Alan E. Lewis, M.D. Garden City, N.Y., Medical Examination Publishing Company, 1980. 123 pages. Paperback, $12.

A guide to the diagnosis and treatment of hyperthyroidism.

NUTRITION

Nutrition in Clinical Surgery. Edited by Mervyn Deitel, M.D. Baltimore, Md., Williams & Wilkins, 1980. Illustrated, 318 pages. Cloth, $34.

"Need to know" information for the practicing surgeon.

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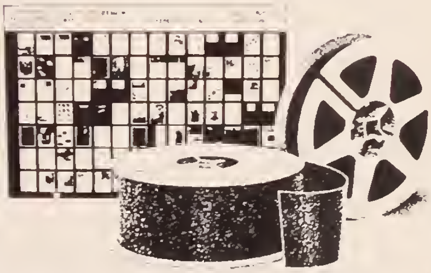

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Abstracts in Interlingua

Berson, B. L.: Arthroscopic del genu; valor diagnostic e therapeutic, **New York State J. Med. 81:** 17 (Januario) 1981.

Un revision de 220 arthroscopias successive del genu facite in le Hospital Mount Sinai esseva correlationate con le trovatos clinic e arthroscopic. Iste studio revelava un proportion plus elevate de diagnose exacte quando le arthroscopia esseva comparate con le diagnose clinic o arthrographic. Esseva observate un frequentia plus elevate de rupturas del ligamento cruciate anterior con o sin injuria meniscal o del ligamento collateral concomittante, como etiam del separationes acute meniscal peripheric. Es recommendate le prompte reparation del ruptura acute del ligamento o del separation del menisco peripheric. Le arthroscopia diagnostic con biopsia ha essite de valor in casos de problemas del genu previemente non diagnosticate. Le rolo del arthroscopia operatori proportiona un opportunitate de un progresso grande in le tractamento de multe problemas del genu includente le lesiones meniscal, le abnormalitates patello-femoral, lo corpores libere, le plicas synovial e altere alterationes pathologic.

Bartish, E. G., e Dillon, T. F.: Morbo inflammatori pelvian acute; evalutation laparoscopic, **New York State J. Med. 81:** 25 (Januario) 1981.

Le diagnose del morbo inflammatori pelvian ha un parve relation inter le examination clinic e le trovatos physic al laparoscopia. Un gruppo de 81 patientes con le diagnose clinic de morbo inflammatori pelvian habeva un examination laparoscopic. Solmente in 49 patientes (60.5 pro cento) le diagnose clinic esseva confirmate per le laparoscopia. Mediante le uso libere del laparoscopia es possibile evitar un tractamento non necessari, e ansi le therapia definitive no es retardate.

Vlachakis, N. D., Pratilas, V., e Pratila, M.: Catecholaminas plasmatic elevate; consequentias possibile, **New York State J. Med. 81:** 27 (Januario) 1981.

In 24 patientes no chirurgic le catecholaminas plasmatic e le aggregation del plaquettas (thrombocytos) esseva studiate in reposo e durante exercitios isometric serrante le manos. Esseva facite altere determination additional del concentrationes del catecholaminas plasmatic e del aggregation thrombocytic in 10 patientes durante le injection intravenose de nor-epinephrina. Etiam esseva facite, in 28 patientes chirurgic le determination del norepinephrina (NE) plasmatic e del variationes del epinephrina durante e depost le chirurgia cardiovasculari o abdominal. Le percentage del transmission luminose a 1 micromol del concentration final del diphosphato de adenosina ("ADP") e le concentration minime del ADP pro inducer le aggregation irreversibile (limine—"threshold") a 300.000 mm^3 de plaquettas esseva usate pro determinar le aggregation del thrombocytos. Le injection intravenose de NE augmentava significativemente le NE plasmatic e le aggregation plaquettari. Esseva observate un correlation inverse inter le augmento del NE e le disminution del limine (refactorium = 0.69, $p < 0.05$). Un augmento de duo vices del concentration plasmatic del catecholaminas, producite durante le exercitio, esseva associate con un augmento significative del aggregation plaquettari. Le chirurgia major induceva un elevation del concentration del catecholaminas plasmatic similari a ille producite durante le exercitio. Es possibile que le elevation del concentration del catecholaminas inducite per le chirurgia pote contribuer a abnormalitates plaquettari que, in turno, pote participar in le initiation de un thrombosis venose que es frequentemente observate durante le periodo postoperatori.

Fribush, M. A.: Morbos mental; admissiones involuntari in le Stato de Nove York, **New York State J. Med 81:** 37 (Januario) 1981.

Iste articulo ha essite scribite pro servir de breve guida del procedimento pro admission involuntari e del responsabilitate legal que isto implica. Varie suggestiones es facita pro disminuer le risco dê responsabilitate del medico. Decisiones recente del Corte de Justitia mantene le validitate del admission involuntari pro le protection del patiente mental e le communitate. Como le legislatura ha cedite parte del processo juditial directemente al medico, le cognoscentia de como utilisar iste procedimiento adequatemente, es necessari per le attention primari e de emergentia per le medicos in le Stato de Nove York.

Schwartz, A. H., Perlman, B. B., Paris, M., e Thornton, J. C.: Participation psychiatric private in Medicaid; fluxo e refluxo del medicos, **New York State J. Med. 81:** 42 (Januario) 1981.

Pro investigar le dynamia financieri e ille del providente intra le sector psychiatric private del Medicaid, esseva obtenite un information complete de 1971 a 1975 originate in le "Bureau of Medical Assistance" de Nove York. Le expendituras elevava se de 2 a 7 milliones de dolares durante le annos mentionate. Le information revelava: (1) un registration elevate mais un cooperation povre; (2) le majoritate del participantes a salario basse—pagamento medie de 3000 dolares, nunc plus que 30 pro cento recipeva plus que 10.000 dolares; e (3) quando le pagamento esseva ascendite a nivellos plus appropriate, le participation augmentava substantialmente. Pare que le psychiatricos private non ha prejudicio contra le povres, mais illos es resentite de un systema injuste e non manieabile.

Translated by Eduardo I. Juliet, M.D.

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Welcome to Edward Siegel, M.D., as Executive Vice-President of the Medical Society of the State of New York

The New York State Journal of Medicine takes this opportunity to welcome Edward Siegel, M.D., as Executive Vice-President of the Medical Society of the State of New York. We are fortunate in having Dr. Siegel guide the Society at this juncture. We expect a practical approach toward maintaining and improving the quality of the Journal. We are fortunate too that this change in leadership can be achieved so smoothly in a continuum with no disruption, for Dr. Siegel has been working closely with Henry Fineberg, M.D., as Deputy Executive Vice-President for seven and one-half years.

Dr. Siegel is no stranger to the problems that confront any state medical journal, and our own in particular. His appointment will help eliminate all vestiges of divisiveness in the Society and eliminate some of the old regional barriers that go back to the early history of our organization.

Dr. Siegel has always practiced ophthalmology of outstanding merit, with consideration for the patient ever uppermost. To this end it must be noted that he practiced in both the Downstate area, in Forest Hills for a number of years, and then for many years Upstate in Plattsburgh. There he combined the practice of his specialty with the administrative experience of Chief of Staff of the Champlain Valley Physicians Hospital Medical Center for eight years. He was President of the Medical Society of the State of New York during 1972. In addition, he brings the advantage of experience in the military as a retired Colonel in the U.S. Army Reserve. As President of the Plattsburgh School Board he has dealt with complex budgets and personnel problems.

It would serve no useful purpose to reiterate the details of his long service to patients, physicians, and the public and his numerous contributions to organized medicine, nor to list his constructive, very helpful participation and promotion of the welfare of medicine and patient care in this State.

He received the Presidential Citation for Outstanding Community Service in 1960 and the Plattsburgh Citizen of the Year Award in 1964. This recognition represented the appreciation and awareness of his numerous civic activities with service organizations and local community groups. He has served under three governors of New York State as a member of their Medical Advisory Committee on Social Services. As a member of the National Defense Executive Reserve, Dr. Siegel holds a critical assignment under the Federal Emergency Management Agency. All these extramural, nonmedical functions establish him as a well-rounded citizen who has always accepted full responsibility and promotion of public welfare as the duty of every good physician.

The members of the Society all want to offer their best wishes to Dr. Siegel and look forward to a successful administration filled with outstanding achievements during his tenure. May he be given the strength and wisdom to carry on to this end.

Medical news—good and bad

Good: The signs of cooperation and accommodation emanating from national medical organizations are very good and most welcome. A brief personal experience with the Coordinating Committee on Medical Education (CCME) was marked by disappointment and frustration. The veto power privilege of the parent members and parochial interests made it impossible for that body to function for the good of the majority of the profession and handcuffed organizations involved in accrediting important phases of medical education. The move to dissolve the committee and replace it by a Council for Medical Affairs is a step in the right direction. The new group will be composed of the chief administrative officer and the two highest ranking elected officials of each organization. It could function much like the Business Roundtable now active in Washington. The Business Roundtable is composed of the two top officials from approximately 200 of our major corporations. They meet regularly in Washington and discuss bills placed in the congressional hopper which affect the industries represented on the Roundtable. Each problem is identified, then researched and analyzed, and finally discussed thoroughly. The conclusions arrived at are then offered to members of the Congress through staff personnel or committees addressing each particular issue. By its performance over the years, the Business Roundtable has established remarkable credibility and gained the respect of both representatives and senators. At the present time their advice and guidance is often solicited by members of both Houses. Perhaps the Council for Medical Affairs will serve our profession as well as the Business Roundtable serves their constituents.

Medicine's Roundtable should meet regularly, preferably in a presently-existing Washington office. They could consider health-related bills before they are voted out of committee and acted on by the Congress. Serving as an early source of information and advice rather than reacting after the fact to unpopular legislation. This would do much to improve our profession's image on the Hill. With the use of efficient administrative procedures and by prorating costs, the Medical Roundtable would be much less expensive than the present trend by national specialty societies toward establishing separate offices in Washington.

It was also good to read that the Liaison Committee on Graduate Medical Education will now be called the Accreditation Council for Graduate Medical Education. By retaining its policy making function and acting as a court of appeals, the new body will go a long way toward solving the problems that surfaced between the old Liaison Committee on Graduate Medical Education and the residency review committees who felt that their authority was being usurped.

The third bit of pleasant news concerns the reformation of a single national accrediting body for continuing medical education which is to be called the Accreditation Council on Continuing Medical Education and will replace both the old Liaison Committee on Continuing Medical Education and the AMA's Council for Accreditation of Continuing Medical Education (CACME). When the proposal is implemented in January, 1981, the new agency will be stronger and perform better than the two now in existence. The plan includes leaving the responsibility for accrediting intrastate institutions and organizations to the state associations. Specialty and learned societies as well as medical schools and other organizations of national scope will remain the responsibility of the new organization. To function more efficiently, the new accrediting groups will be independently staffed and financially self-sustaining.

Bad: The bad news concerns the foreign offshore and land-based "medical schools" built since 1970, usually for financial gain. These institutions are luring disappointed medical school applicants by offering them a way of circumventing our fine medical education system. They are being encouraged by political forces in some states, who are attempting to open the doors of our accrediting system and thereby lowering standards and licensing requirements. If successful, they will flood our clinical training facilities and postgraduate medical education programs with inferiorly prepared students. This will make a mockery of our present medical college admission policies and our medical school accrediting procedures. It took our profession about 70 years to build the best medical training system in the world, and now our hospitals are being forced to accept students outside of that system from newly-developed diploma mills. The basic science courses in the entrepreneurial institutions are suspect and they are enticing some of our good community hospitals to provide clinical training for their ill-prepared students with promises of financial rewards. It is a clever way to transfer the expensive clinical training years to community hospitals in the United States.

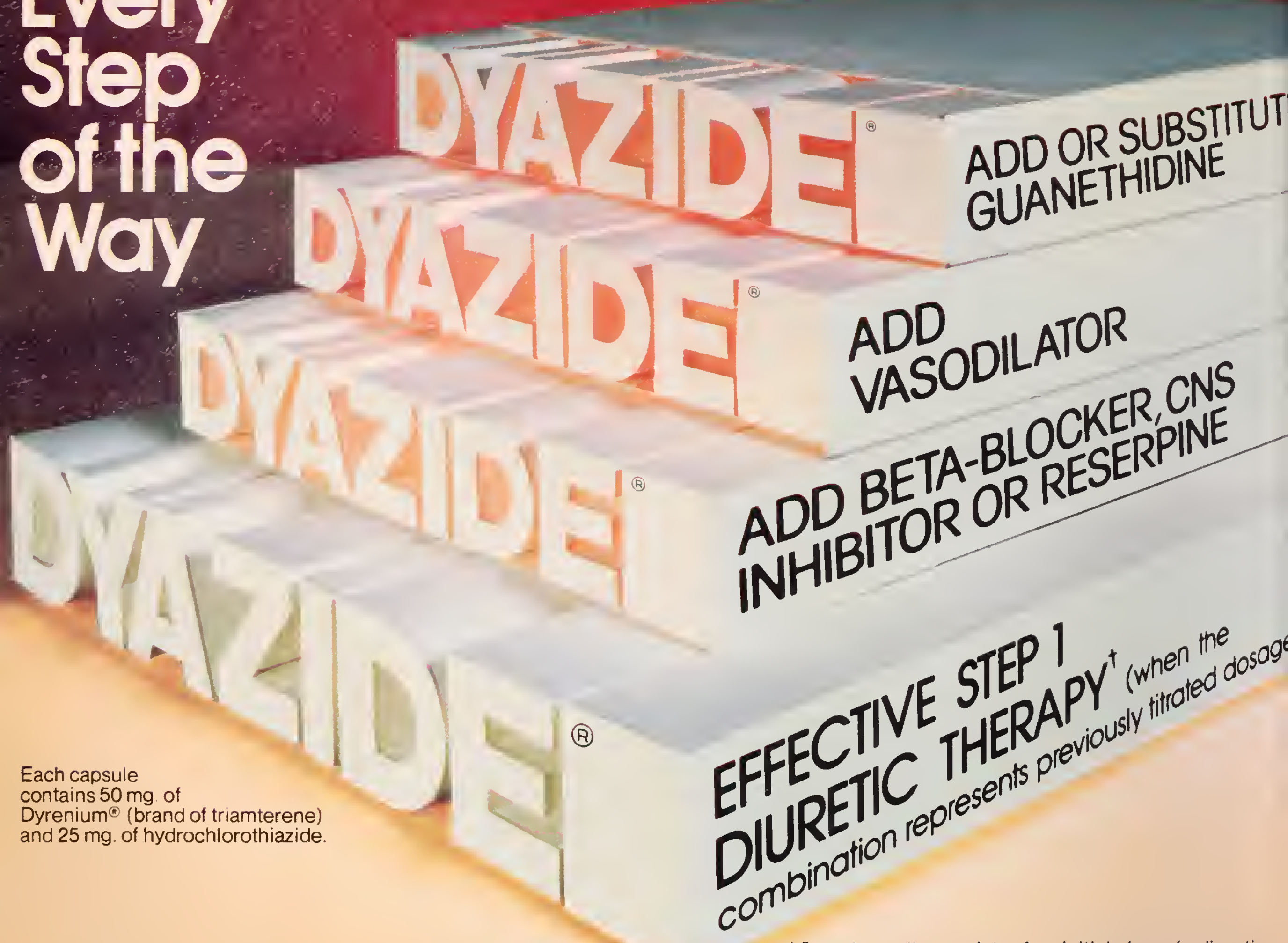
As parents we can sympathize with the families of these well motivated young men and women and it is difficult to fault their desire to embark on a career in medicine, but it isn't fair to them or to future patients to enroll them in a training program on an equal basis with other students who have successfully met all of the present admission requirements to win a place in our medical schools.

The "medical schools" in question are not subject to a survey equivalent to that required of our institutions and conducted by the Liaison Committee on Medical Education. Such being the case, their students should not be admitted to our training programs or state licensing examinations.

JULIUS E. STOLFI, M.D., F.A.C.P.

In Hypertension*...When You Need to Conserve K^+

Every Step of the Way



Each capsule
contains 50 mg. of
Dyrenium® (brand of triamterene)
and 25 mg. of hydrochlorothiazide.

†Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K^+ supplement or K^+-sparing agent an maintenance phase (a diuretic alone or in combination with a K^+ supplement or K^+-sparing agent).

Serum K^+ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. A brief summary follows:

* **WARNING**
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in postsympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

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Arthroscopy of Knee

Diagnostic and therapeutic value

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A review of 220 consecutive arthroscopic knee examinations performed at The Mount Sinai Hospital were correlated with clinical and arthrographic findings for meniscal lesions. They revealed higher rates of diagnostic accuracy with arthroscopy when compared with clinical or arthrographic diagnoses. A high incidence of anterior cruciate ligament ruptures with or without concommitant collateral ligament or meniscal injuries was observed, as well as acute peripheral meniscal separations. Prompt repair of acute ligament rupture or peripheral meniscus detachment is advocated. Diagnostic arthroscopy with biopsy has been of value in previously undiagnosed knee problems. The role of operative arthroscopy provides opportunity for great advancement in treating many knee problems including meniscal lesions, patellofemoral abnormalities, loose bodies, synovial plica, and other conditions.

Although endoscopic examination of the knee was first performed by Takagi in Japan in 1918, it was not until Watanabe[1] refined this technique, and Jackson and Abe[2] popularized it in North America in 1969, that its use became widespread. Prior to this, arthrography was the most reliable procedure for diagnosis of knee disorders.[3] Within the past decade, with the advent of operative arthroscopy, arthroscopy of the knee has evolved into a therapeutic as well as a diagnostic modality.[1,4,5] Several earlier reports have compared the diagnostic accuracy of arthrography with arthroscopy, revealing a higher degree of accuracy with the latter.[6–8] This series confirms previously published data.

Arthroscopy must be considered an operative procedure to be performed under sterile conditions, using either general or local anesthesia. The following is a list of indications for arthroscopy.

I. Acute trauma
II. Chronic knee problems
    A. Patellofemoral abnormalities
    B. Unstable knees
III. Undiagnosed knee problems (inflammatory arthritis, synovitis, pigmented villonodular synovitis)
IV. Mass (tumor, cyst, lipoma)
V. Normal or equivocal arthrogram in symptomatic knees
VI. Accurate diagnosis of type of meniscal tear
VII. Loose osteochondral bodies
VIII. Osteochondritis dissecans
IX. Osteonecrosis
X. Evaluation of previous surgery
XI. Operative arthroscopy, including biopsy

The major advantage of this procedure is that most structures within knee joints can be studied under direct vision, often utilizing multiple puncture sites.[9] General or epidural anesthesia allows for immediate arthrotomy, if necessary, after reprepping and redraping the limb. This is especially valuable in acutely traumatized knees which may require examination under anesthesia, arthroscopy for accurate diagnosis, and prompt management. Recent reports of acute knee injuries with hemarthroses have demonstrated a high incidence of anterior cruciate ligament ruptures diagnosed by arthroscopy and amenable to immediate surgical repair or reconstruction.[10–12]

The importance of the menisci to normal knee function has been firmly established,[13–17] and now all attempts are made to preserve them whenever possible. Cases in which acute peripheral tear of the meniscus is visualized can be resutured to the meniscotibial and femoral ligaments by arthrotomy. This procedure preserves meniscal function. Partial meniscectomy of a bucket-handle, longitudinal, or flap tear can be performed by operative arthroscopy or limited arthrotomy, if the peripheral rim has been well visualized through the arthroscope and found to be stable and intact. This procedure may not be advisable without arthroscopic visualization of the posterior horn of the meniscus since this cannot be seen through conventional anterior arthrotomy incision, double and triple bucket-handle tears not infrequently occur in the posterior horn.[18] However, the arthrogram cannot be relied on to consistently delineate the type of meniscal tear amenable to

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partial meniscectomy.

Materials and methods

This article concerns a prospective study covering a two-year period from July, 1977, through July, 1979, correlating the results of 220 consecutive knee arthroscopies with clinical diagnosis, arthrograms, and findings at arthrotomy. All cases were performed by the author at Mount Sinai Hospital. The study was undertaken after approximately two years of experience and a considerable number of diagnostic arthroscopies performed to achieve satisfactory levels of skill and confidence. The prospective series was terminated when partial meniscectomy was first performed through the arthroscope in July, 1979. Subsequently, this became a frequent method for performing the procedure. Follow-up results, therefore, range from 8 to 32 months.

Patients ranged in age from 10 to 76 years with a mean age of 28.6 years. There were 144 males and 76 females; the right knee was involved 121 times and the left knee 99 times. One-hundred and fifty-three arthrotomies were performed for internal derangement of the knee immediately following diagnostic arthroscopy. Of these, 150 had preoperative arthrograms. The quality of these films varied and affected our correlative statistics.

Complications

Except for one superficial staphylococcal epidermidis infection in a 57-year-old diabetic woman following arthroscopy, arthrotomy, and medial meniscectomy, no infections were attributable to arthroscopy. Her infection responded to local therapy. One case of thrombophlebitis requiring anticoagulation and one case of recurrent hemarthrosis lasting four months followed the combined procedure. All responded to appropriate therapy; there were no other complications.

Results

An attempt was made to correlate the diagnostic accuracy of meniscal lesions by clinical, arthrographic, and arthroscopic interpretation with the actual condition found at arthrotomy. Conditions were classified into four categories similar to previous reports[6-8] (Table I):

1. Clinical diagnosis compared with arthroscopic findings.
2. Arthrogram compared with arthroscopy.
3. Arthrogram compared with arthrotomy findings.
4. Arthroscopy compared with arthrotomy findings.

All arthrograms were reviewed by me, for purposes of the prospective study, and the radiologist's diagnosis was used. Retrospective review of the arthrograms, especially those which were suboptimal or "equivocal" revealed several errors in interpretation. Arthrotomy following arthroscopy included 107 medial and 46 lateral meniscectomies, 5 of these being bilateral (medial and lateral) meniscectomies. Total meniscectomies were performed on 12 discoid menisci, 11 lateral and 1 medial; 7 of these were previously reported[19] (Fig. 1, A, B). Twenty partial medial meniscectomies were performed after observing a normal-appearing peripheral rim and a posterior horn through the arthroscope. At present, this procedure (partial meniscectomy) is executed using the operating arthroscope with triangulation technique, removing the need for arthrotomy when possible. Three isolated peripheral separations of medial meniscus of recent origin were seen through the arthroscope and sutured to capsular ligaments with good results (Fig. 1C, D).

TABLE I. Correlation of meniscal lesions by clinical arthrographic and arthroscopic interpretation

Methods and Number of patients	Medial Meniscus (percent)	Lateral Meniscus (percent)
Clinical diagnosis (183)		
False positive	29 (22.7)	7 (12.7)
False negative	8 (6.2)	8 (14.5)
Arthrogram (150)		
False positive	18 (15.0)	7 (13.7)
False negative	11 (9.1)	12 (23.5)
Arthroscopy (220)		
False positive	3 (2.8)	1 (2.1)
False negative	0	? 1
Arthrotomy (153)	. . .	46 (5 bilateral)

Clinical diagnosis of medial meniscus tears was inaccurate in 37 cases with 29 (22.7 percent) false positives and 8 (6.2 percent) false negatives. For lateral meniscus tears there were 15 misdiagnoses, 7 (12.7 percent) false positives and 8 (14.5 percent) false negatives. Many of these false positives were in symptomatic knees which did not respond to conservative treatment by the referring orthopedist, orthopedic resident, or me.

Arthrography had a significant number of errors in this series. There were 18 (15.0 percent) false positives, 11 (9.1 percent) false negatives for medial meniscus; 7 (13.7 percent) false positives and 12 (23.5 percent) false negatives for lateral meniscus tears. Arthrographic misdiagnosis of lateral meniscus lesions is usually more common because the popliteus tendon and sheath obscures body tears and tears in the posterior horn of the lateral meniscus.[3] These areas are well visualized arthroscopically. Five bilateral (medial and lateral) meniscal tears, one or both of which were not diagnosed by arthrography but were seen via the arthroscope were of significance, since future surgical procedures might well have been required had not arthroscopy been performed (Fig. 2). Eight double or triple bucket-handle tears which were not appraised on the arthrogram were diagnosed at time of arthroscopy. One symptomatic, retained, and torn posterior horn of the medial meniscus following previous incomplete

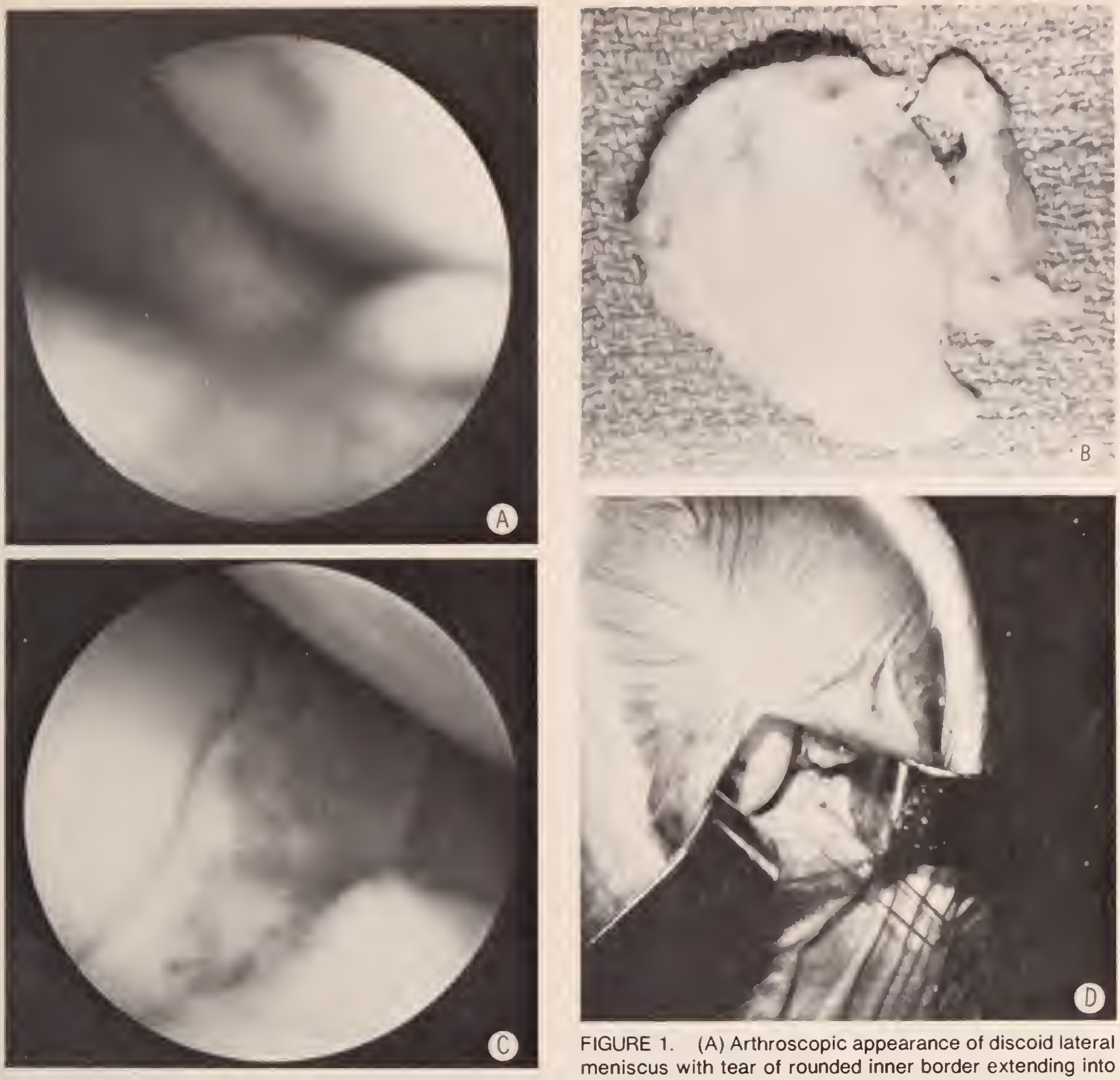
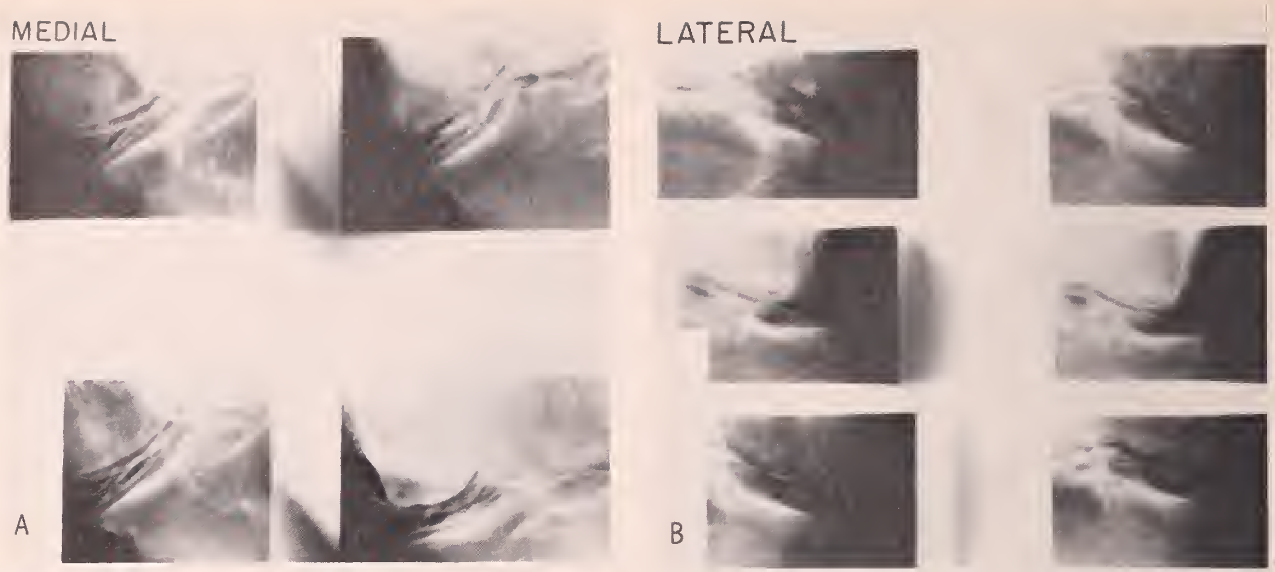


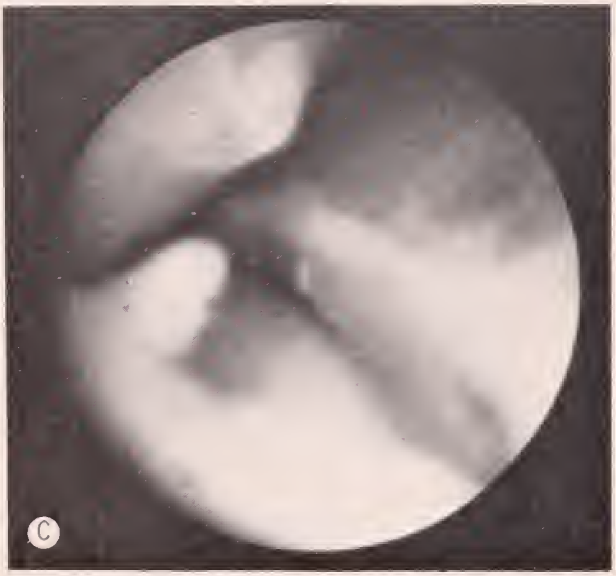
FIGURE 1. (A) Arthroscopic appearance of discoid lateral meniscus with tear of rounded inner border extending into intercondylar notch. (B) Surgical specimen of torn discoid lateral meniscus which occupied entire lateral compartment. (C) Arthroscopic appearance of acute peripheral separation of anterior horn and body of hemorrhagic medial meniscus from synovial junction. (D) Acute peripheral separation of medial meniscus sutured back to meniscofemoral and meniscotibial ligaments at arthrotomy.

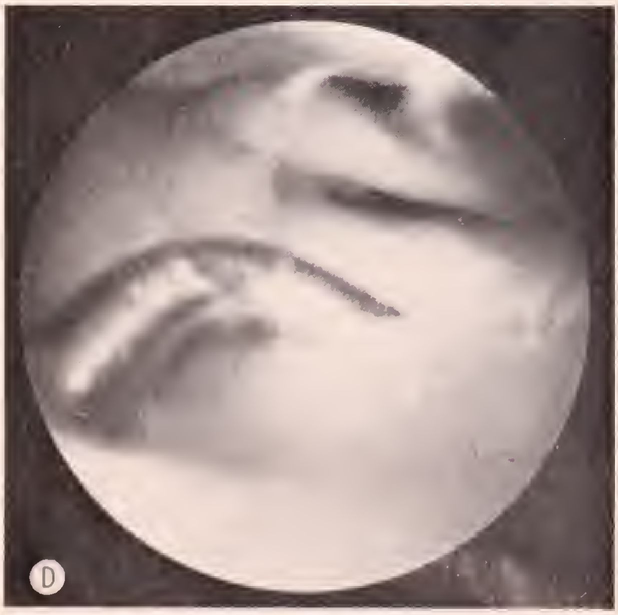
meniscectomy was diagnosed by arthroscopy and removed at arthrotomy.

Arthroscopic misdiagnoses occurred in three medial menisci (2.8 percent) and one lateral meniscus (2.1 percent), an incidence similar to that of a previous report.[8] These were all false positives. Only one patient in this series underwent subsequent diagnostic arthroscopy and arthrotomy. This was a 27-year-old girl referred for arthroscopy with a symptomatic knee following excision of a popliteal cyst. At arthroscopy she had a tear of the posterior horn of the medial meniscus with a normal-appearing lateral meniscus. A total medial meniscectomy executed by her referring orthopedist confirmed disease. She had difficulty with rehabilitation, and subsequent arthroscopy performed elsewhere was interpreted to reveal a possible tear of the lateral meniscus which was not confirmed by later arthrotomy. There was no other false negative arthroscopic diagnosis. This may, however, change with the passage of time since followup examinations are performed only from 8 to 32 months after diagnosis.

Twenty-four ACL (anterior cruciate ligament) ruptures, of which there were 12 acute and 12 old, were observed for an incidence of 10.9 percent of all arthroscopies performed. All 12 of the acute ACL ruptures were repaired (Fig. 3). Two of these rup-







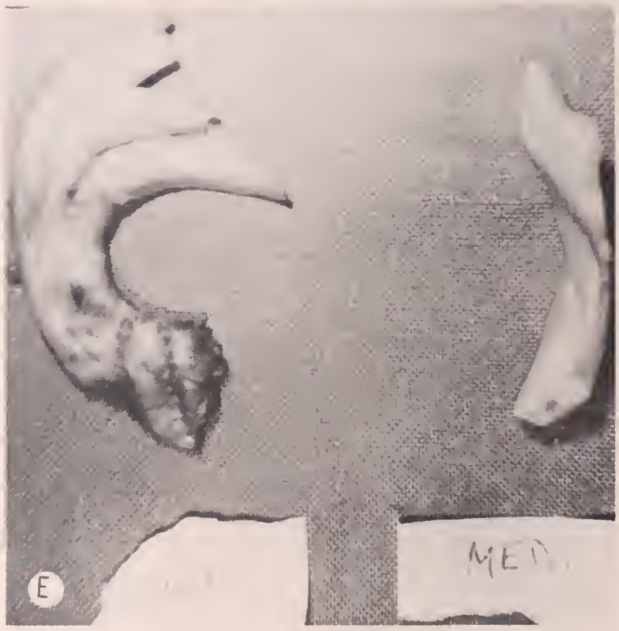


FIGURE 2. (A) Arthrogram of medial meniscus demonstrating longitudinal tear. (B) Arthrogram of lateral meniscus interpreted as no tear. (C) Arthroscopic appearance of displaced bucket-handle tear of medial meniscus. (D) Triple bucket-handle tear of lateral meniscus with nerve hook separating primary from secondary and tertiary tears. (E) Surgical specimen. Total lateral meniscectomy for triple bucket-handle tear, partial meniscectomy of bucket-handle tear of medial meniscus.

tures were isolated, four of them associated with lateral meniscus tears, and six were in conjunction with medial collateral ligament repairs accompanying resuturing of medial meniscus tears or meniscectomy. Four posterior cruciate ruptures, one isolated and three in conjunction with medial collateral ligament disruption, were also repaired during this period. All of the 12 old ACL ruptures were associated with meniscal disease, emphasizing the importance of

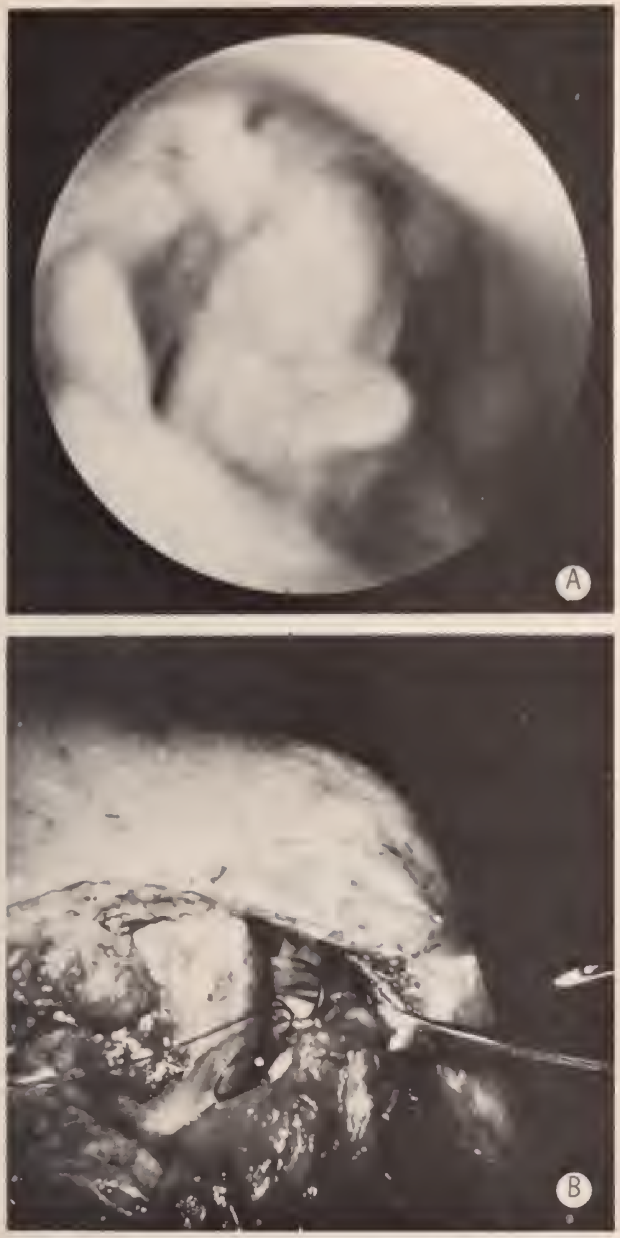


FIGURE 3. (A) Acute ACL rupture occurring just distal to origin from lateral femoral condyle. (B) Surgical repair of ACL rupture with suture being placed through the detached proximal ligament.

TABLE II. Other pathologic lesions diagnosed at arthroscopy

Condition	Number of patients
Anterior cruciate ligament tear, acute	12
Anterior cruciate ligament tear, chronic	12
Chondromalacia patella	38
Osteochondritis dissecans	6
Osteonecrosis	8
Loose osteochondral bodies	12
Recurrent dislocation or subluxation of patella	14
Patella fracture	1
Medial synovial plica	8
Hypertrophied ligamentum mucosum	2
Lipoma	1
Cysts	2
Synovitis	
Monarticular arthritis	1
Rheumatoid arthritis	3
Iliocolitis	2
Gout	2
Tuberculosis	1
Psoriatic arthritis	1
Pigmented villonodular synovitis	1
Hemophilia	2

early diagnosis and surgical repair of acute ACL ruptures.

Table II lists other conditions diagnosed at arthroscopy. Six patients with osteochondritis dissecans found to be amenable to treatment were diagnosed arthroscopically (Figs. 4A, B). Two patients with hemophiliac arthropathy underwent arthroscopy to visualize their articular cartilage to determine whether or not they were candidates for total knee replacement (Fig. 4C). This is apparently the first report of arthroscopy in hemophilia in the English-speaking literature. Other unusual diagnoses included one of tuberculosis of the knee in a 76-year-old man with previously undiagnosed painful, swollen knee; one pigmented villonodular synovitis; several cases of nonspecific synovitis; monarticular and rheumatoid arthritis; and synovitis associated with iliocolitis. There were two previously undiagnosed cases of gout, two synovial cysts, and one lipoma. The continuous saline lavage of the joint during arthroscopy has been of prolonged symptomatic relief in patients with degenerative or inflammatory arthritis, gout or pseudogout as reported by O'Connor.[20]

Operative arthroscopy has added new dimensions to treatment of knee disorders. Excluding arthroscopic menisectomy, which is not included in this article, several procedures were performed through operative arthroscope during this period. These included (1) arthroscopic removal of loose osteochondral bodies in 9 of 12 knees; (2) performing arthrotomy on 3 patients; and (3) procedures for lateral retinacular release done on 18 patients for recurrent dislocation; or subluxation of the patella; or patellofemoral compression syndrome as described by Metcalf[21] (Fig. 4D). The Johnson intra-articular shaver was used in 12 cases of chondromalacia. There were six cases of lysis of adhesions, and eight of resection for symptomatic medial synovial plica or shelf (a ridge or fold extending from the suprapatellar plica inferiorly adjacent to the medial femoral condyle that inserts into the fat pad).

Comment

In reviewing this series, a significant change in management of internal derangement of knee structures has resulted from arthroscopy. Thirty-four percent of clinical diagnoses were at variance with the arthroscopic findings, as were 31.4 percent of the arthrographic diagnoses. Arthrotomy was

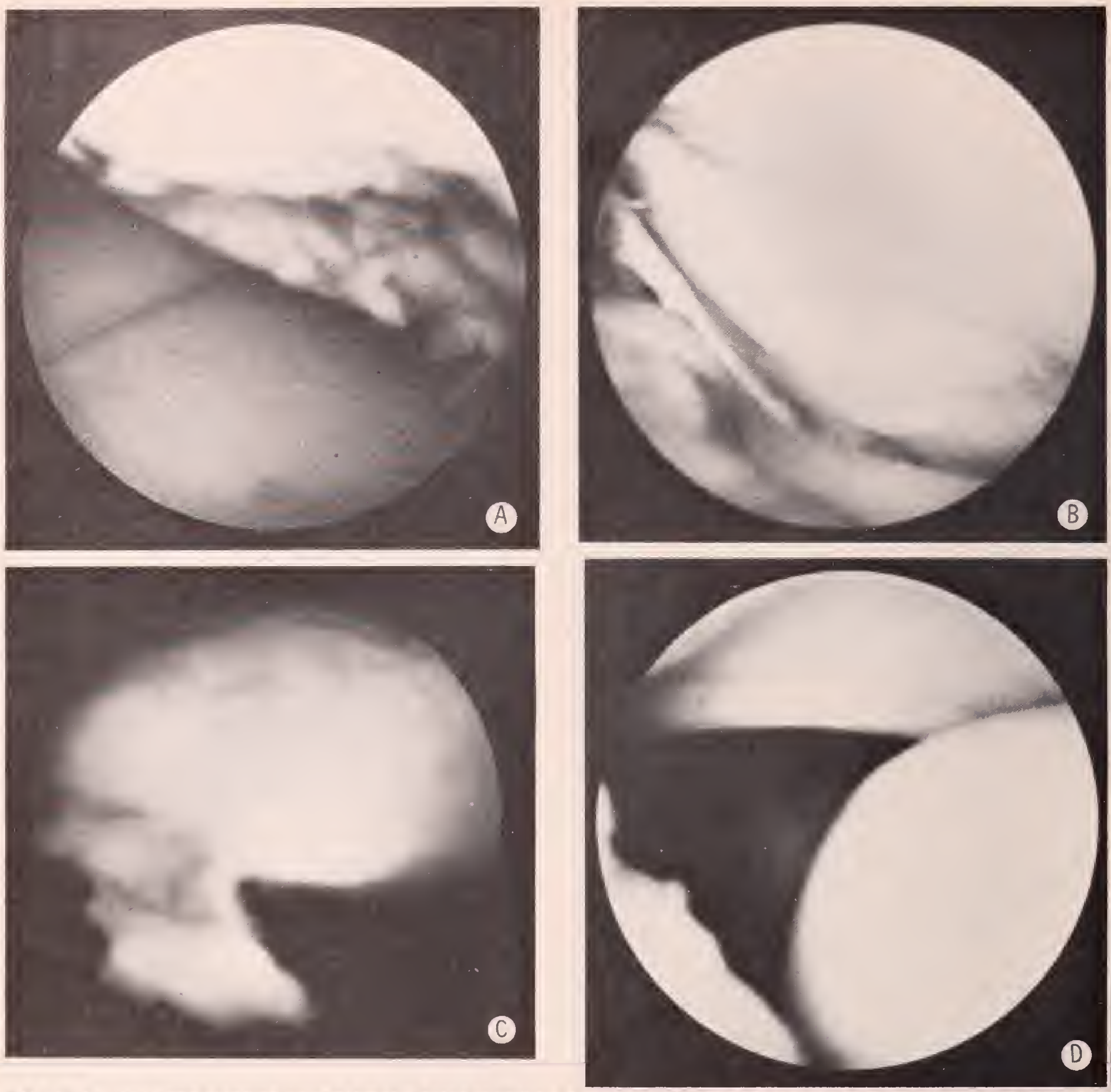


FIGURE 4. (A) Long-standing asymptomatic osteochondritis dissecans of medial femoral condyle with associated lateral meniscus tear in 20-year-old squash professional. (B) Osteochondritis dissecans of medial femoral condyle prior to separation of fragment in 18-year-old competitive skier. (C) Hemophiliac arthropathy involving medial femoral condyle. (D) Arthroscopic appearance of lateral dislocation of patella over lateral femoral condyle at 30 degree flexion.

avoided by arthroscopy in 16.7 percent of cases, and in 15.3 percent arthrotomy was influenced by arthroscopy, for example surgery changed from that which was initially planned; or surgery being performed in view of other negative tests. Therefore, it seems reasonable to state, that approximately one third of all patients undergoing arthroscopy in this series benefited from the procedure.

The high incidence of anterior cruciate ligament ruptures noted at arthroscopy is impressive. None of these were diagnosed by routine double-contrast arthrograms. If the acute ACL rupture had not been visualized through the arthroscope and surgically repaired, a future instability and derangement would probably have occurred. This was noted by studyin the 12 cases of chronic ACL ruptures associated wit meniscal disease. In retrospect, knee instabilit resulting from ACL rupture probably predispose to tears of the menisci due to the shearing and rotatory stresses placed on them when the joint is unstable.

Conclusion

Arthroscopy of the knee should be considered a an important modality for diagnosis prior to definitive arthrotomy. Operative arthroscopy has becom well established as a treatment for uncomplicate knee disorders.

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"T's and blues" is new drug of abuse by addicts

"T's and Blues" is the latest combination of drugs abused by street addicts, says a report in the September 12 Journal of the American Medical Association.

Physicians were alerted by Craig V. Showalter, M.D., that the drug abuse patient might be suffering from an odd combination of two comparatively safe drugs—pentazocine (Talwin), a pain reliever, and tripelennamine (Pyribenzamine), an antihistamine.

The addict combines pentazocine with the blue antihistamine tablet, dissolves them in water, and injects the mixture.

Earlier, addicts had used tripelennamine combined with paregoric, heroin, or morphine in a mix known on the street as "blue velvet."

T's and Blues users originally were heroin addicts who turned to the mixture when heroin was in short supply.

The "rush" received from an injection of the drug mixture is similar to that of heroin, Dr. Showalter says. It wears off in five to ten minutes, and user reinjects repeatedly. After the high wears off the user generally feels sick, restless, irritable, and has stomach cramps.

Talwin recently has been reclassified in Illinois as a controlled drug, and the price of one tablet each of pentazocine and tripelennamine–known as a "set"—is now $7 to $10 on the street, he says.

Much of the product, however, is obtained through legal prescriptions, and physicians were cautioned to be aware of the abuse potential of the two drugs used in combination.

Continued use may bring severe skin and muscle damage, and may impair breathing. Treatment must include psychological services and counseling beyond the drug withdrawal phase to discourage return to T's and Blues use, Dr. Showalter says. He is affiliated with Substance Abuse Services, Inc., Chicago.

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CONTRAINDICATIONS Idiosyncrasy to this drug

WARNING. Data supporting the use of nitrates during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety

PRECAUTIONS Intraocular pressure is increased therefore caution is required in administering to patients with glaucoma Tolerance to this drug and cross-tolerance to other nitrites and nitrates may occur

ADVERSE REACTIONS Cutaneous vasodilation with flushing Headache is common and may be severe and persistent Transient episodes of dizziness and weakness as well as other signs of cerebral ischemia associated with postural hypotension may occasionally develop This drug can act as a physiological antagonist to norepinephrine acetylcholine histamine and many other agents An occasional individual exhibits marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea vomiting weakness restlessness pallor perspiration and collapse) can occur even with the usual therapeutic dose Alcohol may enhance this effect Drug rash and/or exfoliative dermatitis may occasionally occur

DOSAGE AND ADMINISTRATION

Oral/Sublingual Tablets Cardilate (Erythrityl Tetranitrate) may be administered either sublingual orally Therapy may be initiated with 10 mg prior to each anticipated physical or emotional stress ar bedtime for patients subject to nocturnal attacks The dose may be increased or decreased as need

HOW SUPPLIED

CARDILATE (Erythrityl Tetranitrate) TABLETS (Scored)
for ORAL or SUBLINGUAL USE 5 mg Bottle of 100
10 mg Bottles of 100 and 1000 15 mg Bottle of 100

Reference 1 Hellerstein HK Friedman EH Sexual activity and the postcoronary patient Arch Intern Med 125 987 1970

Burroughs Wellcome Co.,
Research Triangle Park, North Carolina 27709

ONE HUNDRED YEARS WELLCOME

Acute Pelvic Inflammatory Disease

Laparoscopic assessment

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The diagnosis of pelvic inflammatory disease based on clinical observation is often inaccurate and unsatisfactory. The clinical picture is not characteristic and frequently simulates conditions other than pelvic inflammatory disease. Even applying strictest criteria for diagnosis of pelvic inflammatory disease has not improved accuracy. Because of this, correct diagnosis and appropriate therapy are delayed, and serious consequences encountered. The effectiveness of treatment depends on early diagnosis. There is general agreement that accuracy of diagnosis has to be improved.[1,2]

Culdocentesis has been applied with the recovery of offending bacteria in only a small number of cases, and poor correlation between the cul-de-sac and cervical cultures has been encountered.[1,3,4]

A survey of literature on pelvic inflammatory disease also indicates that there is poor correlation between clinical and actual physical findings of this inflammatory process.[1,5–11] Approximately one third of patients with clinical diagnosis of pelvic inflammatory disease have other conditions or no disease at all.[5–8]

With the use of laparoscopy we have attempted to overcome problems of incorrect and delayed diagnosis of pelvic inflammation. In our opinion, laparoscopic procedure does not impose undue risk for patients or alter the course of the disease process.

Material and methods

Eighty-one patients admitted with clinical diagnosis of pelvic inflammatory disease underwent laparoscopic examination. To insure uniformity in clinical diagnosis, these patients were examined by a member of our full-time attending staff. Diagnosis of pelvic inflammatory disease was made only in patients with at least three of the following clinical symptoms: acute lower abdominal pain, abdominal tenderness, vaginal discharge, fever, dysuria, and/or marked tenderness of adnexal areas on bimanual examination.

The laparoscopic procedures were performed under general anesthesia, using standard double-puncture technique.[9,12–14] Our exception to standard procedure was that patients were not placed in the Trendelenburg position. The procedures were performed within 24 hours of hospital admission.

Patients with peritonitis or palpable pelvic masses were excluded from this series, as were patients treated with antibiotics recently in this or other institutions. Absolute and relative contraindications to laparoscopic procedures were strictly observed.[13,15,16] Visual diagnosis of upper tract infection was made when the following findings were present: (1) Hyperemia, edema, and swelling of fallopian tubes with or without exudate from their fimbriated ends, and/or (2) free pus in the cul-de-sac.

Patients with confirmed pelvic inflammatory disease were treated with bed rest and antibiotics.

TABLE I. Laparoscopic findings in patients with pelvic inflammatory disease

Clinical findings	Number of Patients
Acute pelvic inflammatory disease	49
Chronic pelvic inflammatory disease	7
Endometriosis	4
Functional cyst	3
Ectopic pregnancy	2
Enteritis	1
Negative findings	15

Results

Laparoscopic findings in patients with clinical diagnosis of pelvic inflammatory disease are listed in Table I. Only 49 patients in this series of 81 patients had visual evidence of acute pelvic inflammation, and 7 patients were found to have chronic pelvic inflammatory disease. Only 56 cases of chronic pelvic inflammatory disease could be confirmed. Four patients had endometriosis; three patients had small ruptured functional ovarian cysts, two an ectopic pregnancy, and one patient had enteritis. The pelvic organs were completely normal in 15 patients.

Of 49 patients with acute pelvic inflammation, only 11 had a past history of pelvic infection. In 38 patients past history was negative for pelvic infection. The current symptoms in all these patients were lower abdominal pain, vaginal discharge, adnexal tenderness on bimanual examination, fever, and urinary symptoms (frequency, dysuria), in that order. The usual duration of symptoms was between two

TABLE II. Laboratory data

Findings	"Acute" Group	"Chronic" Group	"Clinical" Group
WBC >10,000	16	0	5
Temperature >100.4°F.	11	0	1
ESR >15	49	5	12
ESR >25	41	4	4

and five days, and in most cases had commenced within one week after the last menstrual period. All remaining 32 patients, in whom the diagnosis was other than acute pelvic inflammatory disease, presented symptoms indistinguishable from those previously mentioned.

Laboratory findings

The cervical cultures were mostly nonspecific. *Neisseria gonorrhoeae* was cultured in one patient only. None of the cultures taken from the cul-de-sac during laparoscopic examination grew pathogens within 48 hours.

Laboratory data are outlined and findings compared with different groups of patients in Table II. The white blood count (WBC) was significantly elevated (greater than 10,000) in only 16 patients in the group with confirmed acute pelvic inflammatory disease. Five patients in the "clinical" group, the group of patients in whom, on admission, the diagnosis was pelvic inflammatory disease, demonstrated no visual evidence of inflammatory process on laparoscopic examination. Five patients with elevated white counts had the following findings: ruptured follicle cyst (three), extensive endometriosis (one), and an ectopic pregnancy (one). A temperature elevation of greater than 104°F. was noted in 11 "acute" cases, and only one "clinical" case of enteritis (Table I). Our only consistent abnormal finding in patients with acute confirmed pelvic inflammatory disease was elevated sedimentation rate (Table II). All patients had sedimentation rates greater than 15, and in 41 cases greater than 25. Twelve patients in our "clinical group" had elevated sedimentation rates which were related to a ruptured follicle cyst in 3 patients, extensive endometriosis in 1 patient, and unrelated to gynecologic disease in 8 patients. There were no complications in this series.

Conclusion

Eighty-one patients with the clinical diagnosis of pelvic inflammatory disease underwent laparoscopic examination. Only 49 patients were found to have acute inflammation and 7 had chronic, pelvic inflammatory process. Fifteen patients (18.5 percent) had entirely normal findings. Clinical diagnosis of acute pelvic inflammatory disease was correct in only 49 patients (60.5 percent). Most of the classic symptoms and laboratory data were not characteristic. The sedimentation rate was our only consistent abnormal finding in confirmed cases of acute pelvic inflammatory disease. Patients presenting symptoms of pelvic inflammatory disease are treated on the basis of clinical findings. As this small series indicates, however, there is poor correlation between clinical examination and laparoscopic findings. Thirty-two patients (~40 percent) would have been treated unnecessarily or definite treatment delayed. It is of particular importance that therapy for pelvic inflammatory disease be initiated as early as possible for preserving reproductive capacity. The risks of laparoscopy are minimal, and benefits of early diagnosis of pelvic inflammatory disease outweigh this procedure's dangers. With liberal use of laparoscopy in diagnosis of pelvic inflammatory disease, the outcome for patients should be improved.

> *The diagnosis of pelvic inflammatory disease shows poor correlation between clinical examination and actual physical findings on laparoscopy. Eighty-one patients with clinical diagnosis of pelvic inflammatory disease underwent laparoscopic examination. In only 49 patients (60.5 percent) was this diagnosis confirmed by laparoscopy. With liberal use of laparoscopy, unnecessary treatment can be avoided and definitive therapy would not be delayed.*

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Raised Plasma Catecholamines

Possible consequences following major surgery

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Postoperative thromboembolism is a major cause of hospital morbidity and mortality rates.[1] Deep venous thrombosis is also a very common complication which is seen in the early postoperative period, and adds to hospital morbidity and mortality rates in surgical patients.[2–4] The role of platelets in thrombosis has been recognized for many years[5–7] and abnormalities in platelet function have been shown to follow surgical procedures.[2] Some investigators have found a correlation between the degree of platelet abnormality and the subsequent development of venous thrombosis in the postoperative period.[8] It has been reported that plasma catecholamines increase platelet aggregation in vitro and in vivo, decrease platelet survival, and promote thrombus formation.[9–11] Recent reports in both human beings and experimental animals have shown that increased sympathetic activity during mental or physical stress is associated with enhanced platelet aggregation.[12,13] Recent evidence has suggested that major abdominal or thoracic surgery is associated with a substantial rise in plasma catecholamines which could affect blood coagulation and platelet function.[14,15] However, in surgical patients, the relationship between changes in catecholamines and platelet abnormalities is very difficult to assess because anesthetic drugs or agents and surgical trauma could account for the changes in platelet function which have been described in the postoperative period.[16,17]

The studies described were designed to assess: (1) the quantitative relationship between plasma catecholamines and platelet aggregation in nonsurgical subjects and (2) to measure the extent of change in plasma catecholamines following major surgery.

Observations were made in a total of 62 subjects divided into two categories.

Categories

Category I. Nonsurgical patients. This first category included 34 nonsurgical subjects.* In 12 healthy, control volunteers and in 12 age-matched, primary, hypertensive patients, the effect of endogenously released catecholamines, during isometric handgrip exercise, on plasma catecholamines and platelet aggregation was studied. In 10 subjects, 4 normotensive and 6 hypertensive, the effect of exogenously administered norepinephrine on platelet aggregation and plasma catecholamines was determined. We have included hypertensive patients because it has been reported that patients with labile hypertension have a higher catecholamine response to stress than do normotensive controls and may possibly show a greater effect on platelet aggregation than normotensive subjects.[18] Subjects with diabetes mellitus, lipid abnormalities, manifest atherosclerotic vascular disease, renal or cardiac failure, and thyroid dysfunction, or who smoked cigarettes were excluded from the study. All medications were discontinued for at least two weeks prior to study. Routine testing in those patients with hypertension consisted of physical examination and laboratory procedures which included electrocardiogram, chest x-ray film, rapid-sequence pyelogram, complete blood count, routine urinalysis, multichannel automated blood chemistries, and urinary catecholamine metabolite test. From the normal control volunteers, blood was withdrawn for complete blood count and multichannel automated blood chemistry tests.

Following a 12-hour fasting period, platelet aggregation studies were carried out during the morning hours in a quiet room, with the subject at rest and during exercise. Before the onset of the testing, each subject was instructed in the procedure and the technique of handgrip exercise, while during the procedure no discussion with the subject was permitted. Each subject was asked to lie comfortably on a bed, and a 19-gauge siliconized needle was inserted, without the use of a tourniquet, into an antecubital vein, and a slow infusion of physiologic saline was started. Following this period of relaxation for 20 minutes, blood was withdrawn for plasma catecholamines and platelet aggregation. Subsequently the subject was asked to stand for 10 minutes and then to perform the handgrip technique for 3 minutes on a hand ergometer using two thirds of his maximal voluntary contraction. At the end of this exercise, blood was again obtained for plasma catecholamines and platelet aggregation.

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* Informed consent was obtained.

Platelet aggregation studies were performed using the turbidimetric method of Born[19] as modified by Mustard et al.[20] with ADP (adenosine diphosphate) as the aggregating agent. Blood was sampled by free flow into plastic tubes containing 1/10 volume acid citrate. PRP (platelet-rich plasma) was obtained by immediate centrifugation of plasma at 900 rpm for 15 minutes at room temperature. After removal of the upper two thirds of the PRP, the remaining specimen was centrifuged at 4,300 rpm for 10 minutes to yield PPP (platelet-poor plasma). The platelet count of the PRP was adjusted to 300,000 per millimeter cubed when necessary with the autologous PPP. Platelet aggregation was completed within two hours of sampling. Samples of 0.45 ml. of PRP were prewarmed for one minute and stirred in siliconized cuvettes placed in the aggregometer. Light transmission was obtained at 1 micromol final concentration of ADP and this was compared to the light transmission of the blank. The blank was autologous PPP set for 100 percent transmission. ADP was maintained as a 10^{-3} M. frozen stock solution and was diluted just before use with saline buffer. We determined two indices of platelet aggregability: (1) the percent of light transmission at 1 micromol ADP and (2) the threshold (the minimal concentration of ADP) for biphasic aggregation. Degree of aggregation is related to increase in light transmission since clumping reduces light absorption. All experiments were started with 1 M. ADP concentration, and the percent of light transmission was recorded. Subsequently, the minimal concentration of ADP (threshold) needed to induce the typical biphasic curve (irreversible aggregation) was tested on all samples. The intra- and interassay variability was plus or minus 1 percent for the light transmission and 0 percent for the threshold of biphasic aggregation.

Plasma catecholamines were measured by a modification of the radioenzymatic method of Passon and Peuler.[21] The sensitivity of the assay is within less than 1 pg. of NE (norepinephrine) and E (epinephrine) and requires no more than 50 microliters of plasma. By using a rapid thin-layer chromatography step results can be obtained in one day in a large number of samples.

To determine the effect of NE on platelet aggregation at levels of NE found in the blood during real life stressful conditions, we infused NE into 10 subjects at a rate of 0.1 micrograms per kilogram body weight per minute for 15 minutes in the recumbent position. Blood pressure was recorded every two minutes with an automatically inflated device (Arteriosonde 1216). Blood was withdrawn before and at the end of infusion for measurement of plasma catecholamines and platelet aggregation.

For statistical analysis the Student's t test was used for comparisons between two groups and the paired t test for changes within the same group. Correlation coefficients were computed. Results are expressed in mean plus or minus standard error of mean.

In 24 nonsurgical subjects plasma catecholamines and platelet aggregation were studied at rest and during isometric handgrip exercises. Additionally, plasma catecholamine concentration and platelet aggregation were measured in 10 subjects during norepinephrine infusion. Also, in 28 surgical patients the extent of plasma NE (norepinephrine) and E (epinephrine) changes during and after cardiovascular or abdominal surgery was determined. The percent of light transmission at 1 micromol ADP (adenosine diphosphate) final concentration and the minimal concentration of ADP to induce irreversible aggregation (threshold) at 300,000 mm.^{3} *platelets were used to determine platelet aggregation. The infusion of NE significantly increased plasma NE and platelet aggregation and there was an inverse correlation between NE increase and threshold decrease (refactorum = 0.69,* $P < 0.05$*). A twofold increase in plasma catecholamine concentration, attained during exercise, was associated with a significant increase in platelet aggregation. Major surgery induced elevation in plasma catecholamine concentration similar to that attained during exercise. It is possible that the raised catecholamines induced by surgery could contribute to platelet abnormalities, which may in turn participate in the initiation of venous thrombosis frequently seen in the postoperative period.*

Category II. Surgical patients. The second category consisted of 28 surgical patients. Twenty patients had documented atherosclerotic coronary artery disease and underwent myocardial revascularization procedures consisting of aortocoronary bypass with or without internal mammary artery anastomosis. Eight additional patients had extensive abdominal surgery of at least two hours' duration. Of these patients, two had a total hysterectomy, three a cholecystectomy, and three had extensive colectomies. All surgical patients had recent physical examinations and complete laboratory work-up before surgery. We have included a large number of patients undergoing thoracic surgery because it has been reported that thoracotomy is associated with increased incidence of deep venous thrombosis.[2] Our aim in these surgical patients was to measure plasma catecholamines during surgery, because of the possible role of catecholamines in the genesis of platelet aggregation and microembolization which has been shown to occur during cardiopulmonary bypass.[22] In the surgical patients platelet function studies were not performed because anesthetic agents, other medication, and surgical trauma could account for the changes in platelet function, which have been described in the postoperative period. Our interest was confined to an estimate of the extent of the change in plasma catecholamines during and after surgery and to compare the change with that attained during exercise in the nonsurgical subjects in whom platelet aggregation studies were carried out.

Anesthetic management

Cardiac patients. Flurazepam hydrochloride 15 to 30 mg. was given orally for sleep on the night before surgery to cardiac patients. Premedication consisted of morphine 0.1 mg. per kg./BW (kilogram, body weight), diazepam 0.1 mg. per kg./BW or sodium secobarbital 15 mg. per kg./BW and scopolamine 0.3 to 0.4 mg. intramuscularly one hour before arrival in the operating room. The patient was transported in a semi-Fowler position with oxygen by nasal catheter at 5 L. per minute. After arrival in the operating room, radial artery and right atrial catheters were inserted, and arterial and central venous pressures were monitored using Statham transducers and Hewlett Packard monitors.

Anesthesia was induced with diazepam I.V. (intravenous) in incremental doses of 5 to 20 mg. and was supplemented with small amounts of sodium thiopental in 50-mg. doses to a maximal of 250 mg. Succinylcholine chloride 80 to 100 mg. was given intravenously prior to endotracheal intubation preceded by 6 mg. of d-turbocurarine or 2 mg. of pancuronium bromide to prevent fasciculation and increase in blood pressure. Follwing induction a moderate decrease in blood pressure was observed in four patients and was corrected with albumisol. Nitrous oxide (60 percent) and oxygen (40 percent) with 0.7 to 1.5 percent halothane (10 patients) or 0.5 to 2 percent enflurane (18 patients) was given for maintenance of anesthesia. Muscle relaxation was provided with pancuronium bromide 0.1 mg. per kg./BW (18 patients) or d-turbocurarine 0.7 mg. kg./BW (10 patients). This was repeated in smaller dosage as needed. Ventilation was controlled with an Engstrom Respirator (System 300 LKB) with a tidal volume of 10 ml. per kg./BW with the addition of dead space to maintain a paO_2 (pressure of oxygen) of 110 to 140 mm. Hg and a $paCO_2$ (pressure of carbon dioxide) of 35 to 38 mm. Hg. Arterial blood gases were estimated after induction of anesthesia and then as needed.

Cardiopulmonary bypass was established using standard techniques with a Travenol disposable 6LF mini-prime oxygenator and a Sarns roller pump. Fifty percent hemodilution was employed, and perfusion was performed at a temperature of 32°C. Flow rate was 2.2 L. per square meter body surface area which maintained a mean patient perfusion pressure of approximately 70 mm. Hg.

Arterial blood gases were measured immediately after the patient was placed on extracorporeal circulation and then as necessary.

At the end of surgery the patient left the operating room with the endotracheal tube in place, on controlled ventilation, and with an Ambu bag. In the intensive care unit ventilation was maintained for 6 to 24 hours with a serveventilator (900 Elema Schonander) with 40 percent oxygen and a tidal volume (^{V}T) 10 to 12 ml. per kg./BW. The appropriate dead space was added (50 to 200 ml.) to the circuit to maintain a $paCO_2$ of 40 mm. Hg and $pECO_2$ pressure of expired carbon dioxide of 38 mm. Hg. Mean arterial pressure, central venous pressure, and left atrial pressure were determined through a Hewlett Packard monitor constantly for the first two hours and then every five minutes. The lowest left atrial pressure that could maintain a mean arterial pressure of 85 mm. Hg was the target. Blood gases and electrolytes were estimated in the intensive care unit, immediately on arrival, and then as required. Blood losses were estimated and replaced according to need and according to the mean arterial pressure, left atrial pressure, and central venous pressure. A very accurate fluid balance was maintained on all patients. No patient was overtransfused by the criteria. Oliguria was treated with furosamide 40 mg. I.V., repeated as necessary. Morphine 2 to 4 mg. I.V. was given for sedation. Pancuronium bromide 1 to 2 mg. I.V. or d-turbocurarine 6 to 9 mg. I.V. were given to provide synchronization with the ventilator.

Noncardiac patients. Noncardiac patients received sodium pentobarbital 100 to 150 mg. by mouth, the night prior to surgery for sleep. Premedication was morphine sulphate 0.1 mg. per kg./BW and atropine 0.3 to 0.4 mg. I.M. (intramuscular) one hour before surgery.

Anesthesia was induced with sodium thiopental 200 to 350 mg. I.V. and succinylcholine chloride 80 to 100 mg. was given before endotracheal intubation. Anesthesia was maintained with nitrous oxide (70 percent) and oxygen (30 percent) with the addition of 1 to 1.5 percent halothane or 1 to 2 percent enflurane. Muscle relaxation was provided with d-tubocurarine 0.7 mg. per kg./BW or pancuronium bromide 0.1 mg. per kg./BW. The patient was ventilated with an Ohio ventilator, adding an appropriate

TABLE I. Clinical data, plasma catecholamines, and platelet aggregation results in both groups and subjects*

Clinical Data	Hypertensive (H) (n = 20)	Normotensives (N) (n = 13)
Age (years)	44 ± 2.1	50 ± 2.3
Sex	8 M, 4 F	9 M, 3 F
Norepinephrine picograms per milliliter at rest	234 ± 25	237 ± 19
Epinephrine picograms per milliliter at rest	35 ± 2.7	45 ± 6.8
Percent of light transmission at 1 M. ADP	28.2 ± 2.4	30 ± 3.3
Threshold of biphasic aggregation	2.5 ± 0.43	2.1 ± 0.31

* (H) vs (N) P-values were not significant; Mean: ± standard error of mean; M = male, F = female.

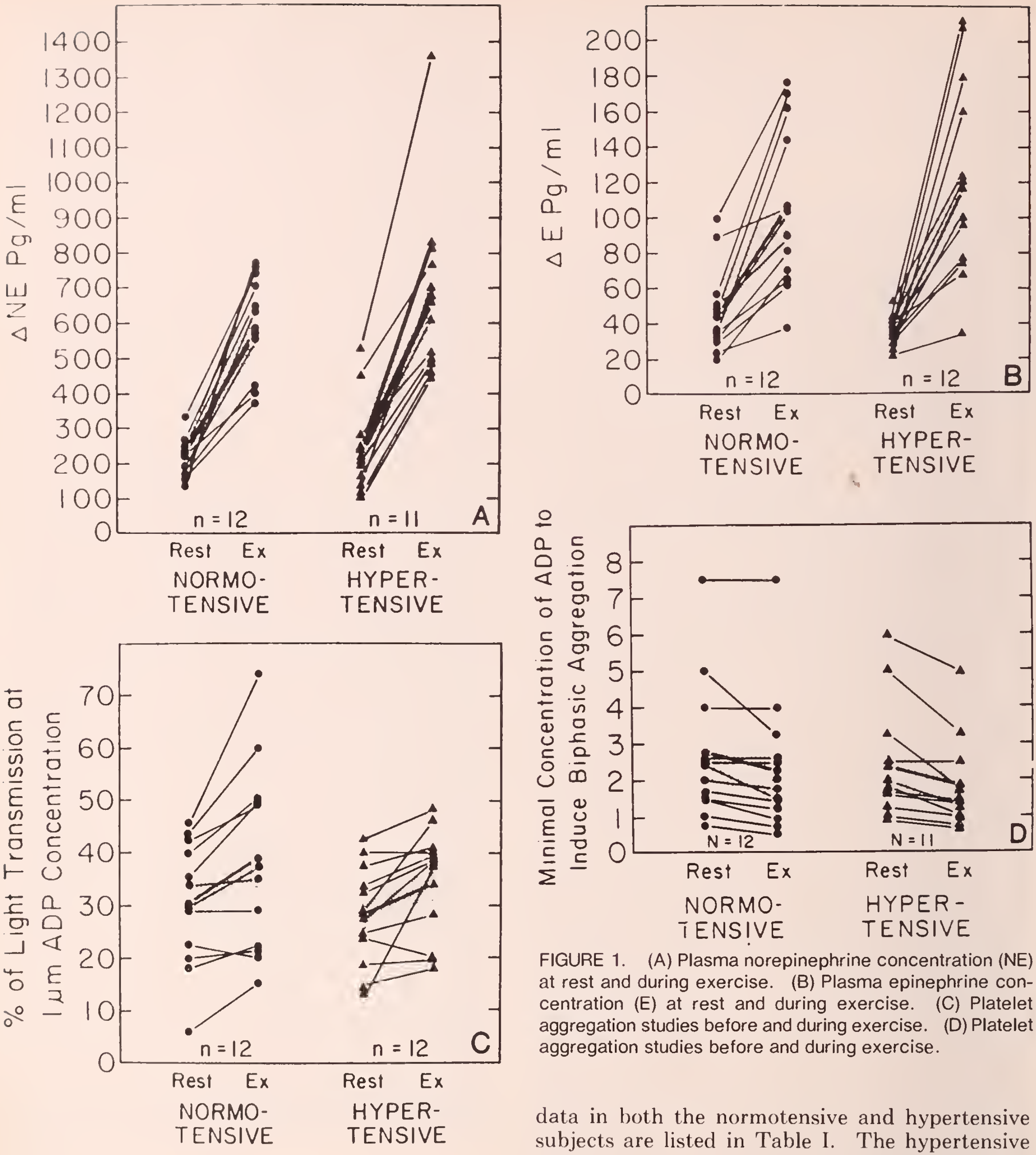


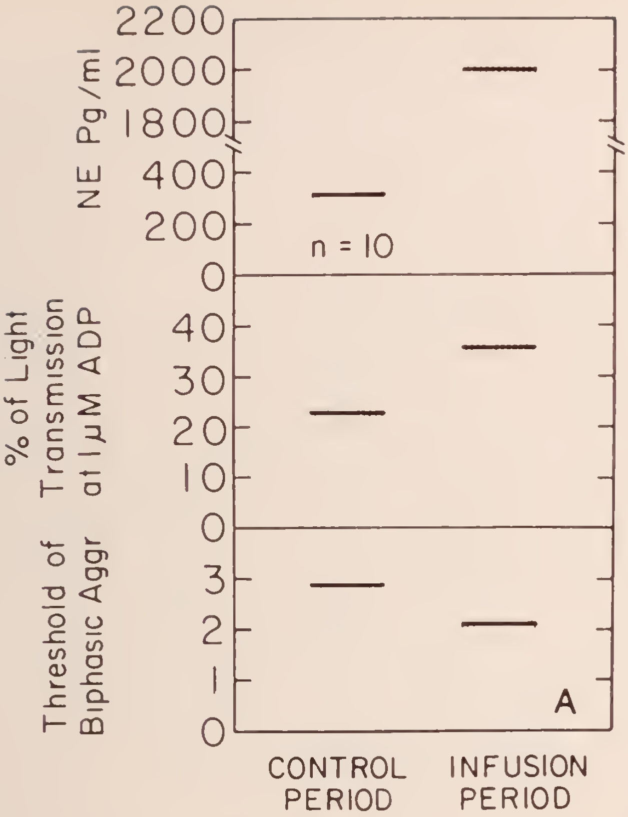
FIGURE 1. (A) Plasma norepinephrine concentration (NE) at rest and during exercise. (B) Plasma epinephrine concentration (E) at rest and during exercise. (C) Platelet aggregation studies before and during exercise. (D) Platelet aggregation studies before and during exercise.

dead space to maintain a $paCO_2$ of 35 to 38 mm. Hg. Blood loss was corrected, arterial blood gases were monitored and corrected by appropriate therapy. Postoperative analgesia was adequate to secure complete alleviation of pain.

Results

Category I. Nonsurgical subjects. *Plasma catecholamines and platelet aggregation studies at rest and during exercise.* Plasma catecholamines and platelet aggregation results along with clinical data in both the normotensive and hypertensive subjects are listed in Table I. The hypertensive group included 8 male and 4 female patients with a mean age of 44 plus or minus 2.1 years, while the normotensive group consisted of 9 males and 3 females with a mean age of 50 plus or minus 2.3 years. P-values for these patients were not significant.

Plasma norepinephrine and epinephrine concentration was 234 plus or minus 25 pg./milliliter and 35 plus or minus 2.7 respectively in the hypertensive group which is not significantly different from values of 237 plus or minus 19 and 45 plus or minus 6.8 respectively obtained in normotensive subjects during the control period. The percent of light transmission at 1 M. ADP was 28.2 plus or minus 2.4 in the hy-



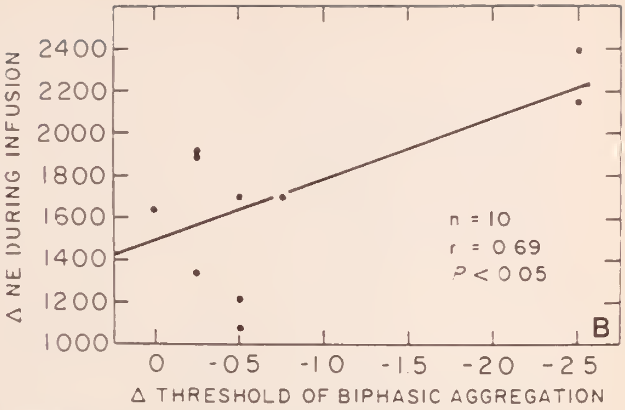


FIGURE 2. (A) Effect of norepinephrine infusion on plasma norepinephrine concentration and platelet aggregability in 10 subjects. (B) Correlation coefficient between increase in norepinephrine (NE) concentration and decrease in threshold (NE) during norepinephrine infusion.

pertensive and 30 plus or minus 3.3 in the normotensive group while the corresponding values for the threshold of ADP to induce biphasic aggregation were 2.5 plus or minus 0.43 and 2.1 plus or minus 0.31 respectively. Again there was no significant difference between these two groups for either percent light transmission or values for threshold of ADP.

During isometric handgrip exercise both norepinephrine (Fig. 1A) and epinephrine (Fig. 1B) increased significantly and similarly in both groups of subjects ($P < 0.001$). The percent of light transmission at 1 micromol ADP (Fig. 1C) also increased significantly in both the hypertensive ($P < 0.025$) and the normotensive ($P < 0.01$) groups, whereas the threshold for biphasic aggregation decreased significantly in both the hypertensive ($P < 0.005$) and normotensive ($P < 0.05$) subjects (Fig. 1D). However, the extent of the change was not significantly different between the two groups.

Effects of norepinephrine infusion on platelet aggregation. In 10 subjects (4 normotensive and 6 hypertensive) mean age was 51 plus or minus 2.5 years. Norepinephrine infusion for 15 minutes produced a significant rise in plasma norepinephrine ($P < 0.0001$) which was associated with a significant increase in the percent of light transmission at 1 micromol ADP ($P < 0.001$) and a significant decrease in the threshold for biphasic aggregation ($P < 0.05$) (Fig. 2A). There was a significant correlation between the change in norepinephrine and the change in threshold (refactorum = 0.69, $P < 0.05$, Fig. 2B).

Figure 2C shows an example of the effect of isometric handgrip exercise on plasma catecholamines and platelet aggregation and in Figure 2D the effect of norepinephrine infusion is depicted.

Category II: Surgical patients. Table II includes clinical data and plasma catecholamine concentrations before and after surgery in patients who did not develop hypertension after myocardial revascularization (Group I), patients who developed hypertension (Group II), and in patients with abdominal surgery (Group III) in which no subject developed hypertension. The duration of surgery was 297 plus or minus 11 minutes with total bypass time 90 plus or minus 12 minutes in Group I, and 354 plus or minus 29 and 107 plus or minus 15 respectively for Group II. The difference was not significant. For Group III the duration of surgery was 160 plus or minus 33 minutes, significantly less than in Group I ($P < 0.01$) and Group II ($P < 0.001$). In Group I there were 7 males and 1 female patients with a mean age of 58 plus or minus 4.7 years, in Group II there were 16 males and 4 females with a mean age of 49 plus or minus 3.5, and in Group III there were 4 males and 4 females with a mean age of 44 plus or minus 7.7 years. On arrival in the operating room plasma norepinephrine was less in Group I than in Group II and Group III ($P < 0.005$ for both). One hour after the end of surgery, however, plasma epinephrine increased significantly in the patients with myocardial revascularization compared with those in the abdominal surgery group in the first hour after surgery. It also remained significantly higher during the first four hours after surgery in the first two groups of patients. Plasma norepinephrine also increased more in four hours after surgery in the groups undergoing cardiac surgery than in Group III, although the difference was not significant.

Figure 3A shows plasma catecholamine levels in surgical patients. In 13 patients who underwent myocardial revascularization plasma norepinephrine

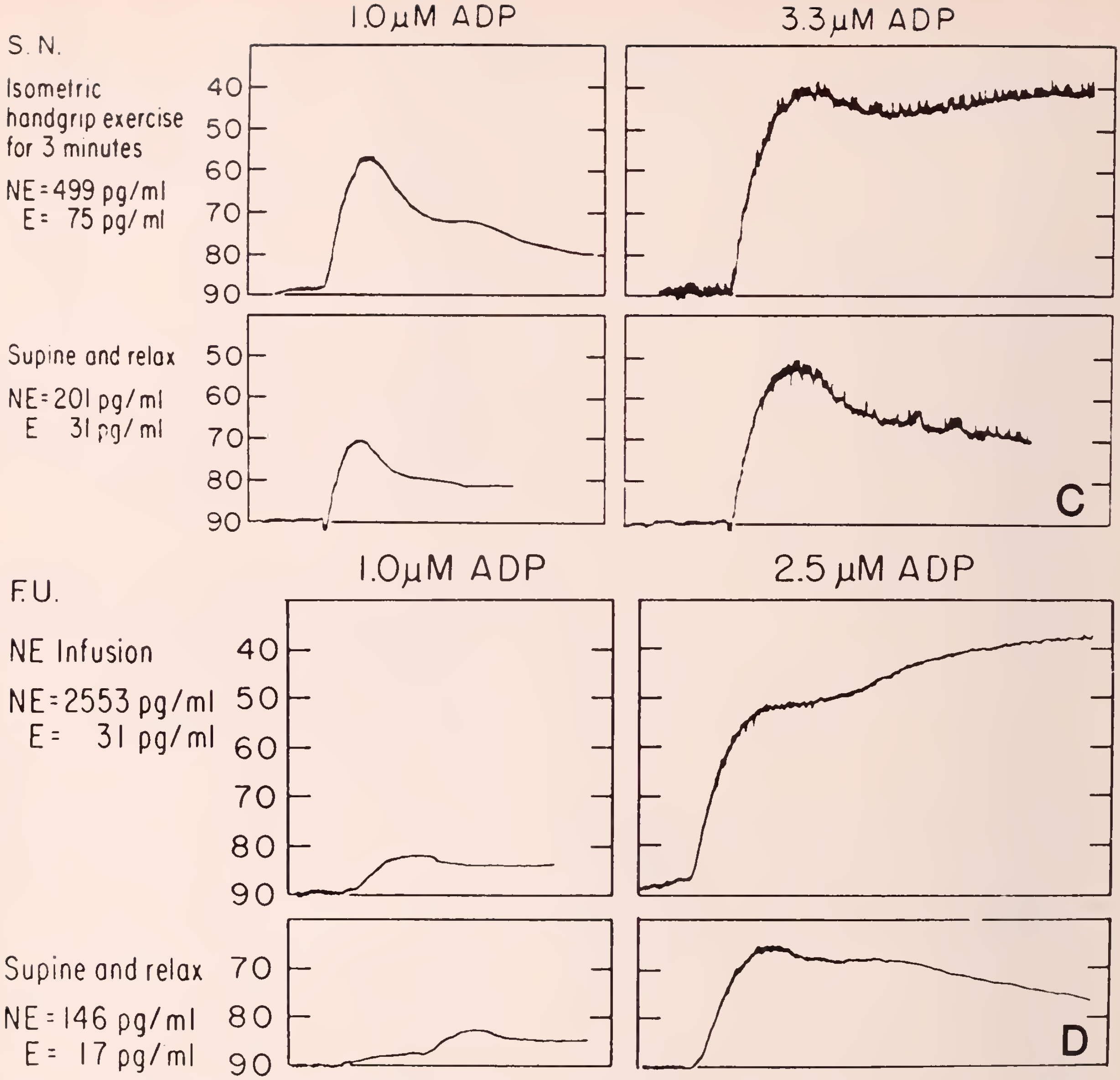


FIGURE 2. (C) Representative case showing effect of isometric handgrip exercise on plasma catecholamine concentrations and platelet aggregation. Percent of light transmission at 1 micromol ADP increased from 29 at rest to 46 during exercise. Concentration of 3.3 micromols ADP induced biphasic aggregation in platelets obtained during exercise but not in platelets obtained at rest. Threshold in platelets at rest was 5 micromols ADP. (D) Male 41 years of age, raised his plasma norepinephrine during the infusion from 146 pg. per milliliter to 2,553 and induced biphasic aggregation at 2.5 micromols ADP, while threshold in the platelets obtained before infusion was 5 micromols ADP.

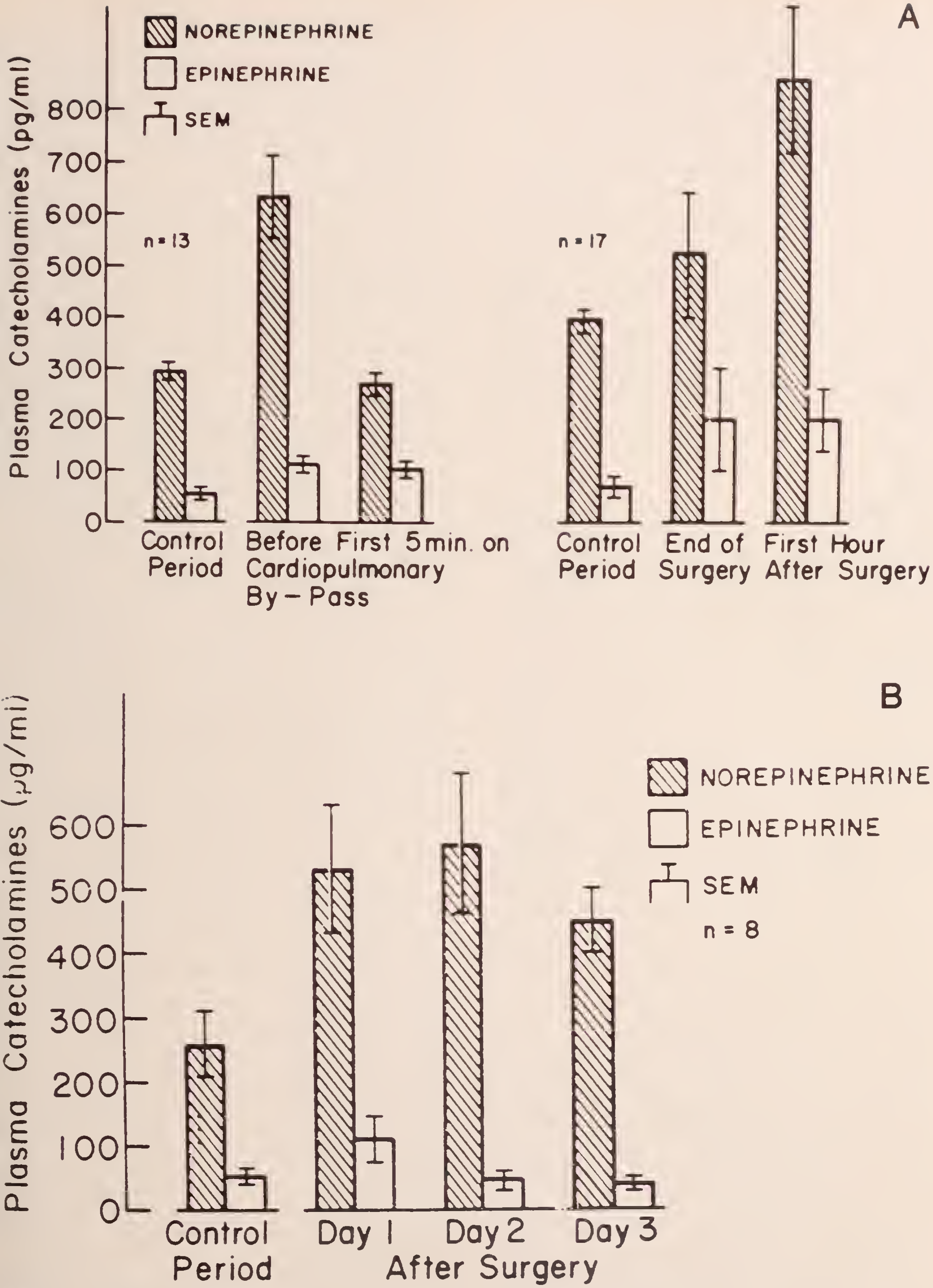
TABLE II. Clinical data and plasma catecholamine concentrations before and after surgery

				A.O.R. Blood Pressure Before Surgery		Plasma Catecholamines					
								1 Hour P.O.		4 Hours P.O.	
Group	Cases	(years)	Sex	SBP	DBP	NE	E	ΔNE	ΔE	ΔNE	ΔE
I	8	58 ± 4.7	7M, 1F	132 ± 7.5	70 ± 2.2	224 ± 39	49 ± 17	42^{+} ± 26	248^{+} ± 27	555^{+} ± 228	609^{+} ± 214
II	20	49 ± 3.5	16M, 4F	124 ± 3.6	69 ± 2.5	336^{+} ± 16	86 ± 16	495^{++} ± 108	575^{+} ± 174	588^{+} ± 244	523^{+} ± 132
III	8	44 ± 7.7	4M, 4F	113 ± 6	68 ± 2	371 ± 51	48 ± 7	550^{++} ± 137	67^{+++*} ± 18	208^{+} ± 118	126^{+} ± 31

For groups, see text; M = male, F = female; A.O.R. = arrival in operating room; SBP = systolic blood pressure; DBP = diastolic blood pressure; NE = norepinephrine; E = epinephrine; +, ++, +++, = significant at P (pressure values) less than 0.025, 0.005, and 0.001 respectively from group I.

Δ = mean difference from (this refers to entire table).

* = significant at P value less than 0.025 from group II.



GURE 3. (A) Plasma catecholamine concentration in different groups of surgical patients on arrival in the operating room ontrol period), immediately before institution of extracorporeal circulation, during the first five minutes, at the end of surgery, d one hour after surgery. (B) Plasma catecholamine concentrations before surgery and during morning hours of first three nsecutive days after surgery.

and epinephrine were twice the control level immediately before the institution of the cardiopulmonary bypass and decreased significantly in the first five minutes of the extracorporeal circulation which was associated with a substantial decrease in blood pressure. In 17 patients, including 5 cardiac and 12 abdominal operations, plasma catecholamines increased twofold in only 5 cases at the end of surgery; whereas, one hour after surgery in all patients there was a two- to threefold increase in norepinephrine and epinephrine.

Figure 3B shows plasma catecholamine concentrations obtained before surgery and every morning after surgery for three consecutive days in eight patients, most having abdominal surgery. In the majority of the cases plasma norepinephrine remained elevated even on the third postoperative day while epinephrine returned toward control levels on the first day.

Comment

This study demonstrates that mild physical exercise produced a two- to threefold elevation in plasma catecholamines which was associated with a significant increase in platelet aggregation on exposure to ADP. To our knowledge, platelet aggregation studies with concomitant measurement of plasma catecholamines are not available in literature. The results obtained from the norepinephrine infusion study confirm our proposal that changes in plasma catecholamines account for the changes in platelet aggregation. Catecholamines have been shown to cause aggregation of platelets.[9–11] Haft et al.[23] reported extensive intravascular platelet aggregation in the heart of dogs induced by norepinephrine infusion at a rate of 4 micrograms per kilograms per minute. These studies were not conclusive because of the large amount of norepinephrine infused and plasma catecholamine concentration was not measured. Ozge et al.[24] showed that catecholamines increased clotting activity in vivo, shortened platelet survival and increased platelet turnover in rabbits and pigs. Rowsell et al.[25] noted an increase in platelet thrombus formation in extracorporeal shunts in pigs after administration of epinephrine.

In the present study there was no significant difference in the plasma catecholamines and platelet aggregation indices, at rest or during exercise, between normotensive and hypertensive subjects. Increased plasma catecholamine concentration in primary hypertensive patients has been reported by some investigators but not by others.[26,27] Nestel[18] has shown that patients with labile hypertension have a higher catecholamine response to mental stress than do normotensive controls, and a recent report describes an exaggerated catecholamine release to isometric exercise in patients with labile hypertension.[28] However, in the present study the vast majority of the patients had established hypertension and our results are in agreement with reports of other investigators.[29]

Our study confirms previous observations that major surgery, such as cardiovascular or abdominal, exerts a major effect on plasma catecholamines.[14,15] Plasma epinephrine concentration was already elevated at the end of surgery in almost all patients whereas norepinephrine increased mainly during the first hour after surgery.

Anesthesia, surgical trauma, and/or heparinization, as well as cardiopulmonary bypass have an effect on platelet aggregation.[16,22] Microembolization of platelet aggregates may account for the pulmonary, cerebral, and other complications which have been reported during cardiopulmonary bypass.[22] In our study both plasma norepinephrine and epinephrine were found to be elevated immediately before the institution of extracorporeal circulation in 13 patients (Fig. 3A). Pratilas, Vlachakis and Litwak[14] observed elevations in norepinephrine during cardiopulmonary bypass in some patients undergoing saphenous vein bypass surgery. It is possible that these elevations in plasma catecholamines may be a contributing factor in the production of platelet aggregates during bypass.

A number of abnormalities in platelet function and blood coagulation in the postoperative period have been reported by several investigators.[4,9] Mitchell and Sharp[10] demonstrated an increased platelet count and platelet clumping activity postoperatively and the time course of these changes coincided with the incidence of postoperative thromboembolism. Becker[8] has found a correlation between postoperative platelet abnormalities and the development of deep venous thrombosis. However, other investigators did not find such correlation.[29] Therapeutic trials with antiplatelet drugs for prevention of deep venous thrombosis have also given conflicting results.[1]

The platelet role in thrombosis is well established. By evaluation of the kinetics (survival or turnover) of platelets, fibrinogen, and plasminogen, it has been clearly shown that arterial thromboembolism involves selective platelet utilization without significant utilization of fibrinogen.[5,6] In addition, on prosthetic surfaces the rate of platelet thrombus formation is related to the amount of unendothelialized surface. Clinical thromboembolization correlates with the rate of platelet utilization. Studies of human renal transplantation have also demonstrated the relationship between rejection, microvascular thrombosis, and decrease in circulatory platelets.[7] However, the role of platelets in venous thrombosis is less well defined. Possibly platelet adherence, release, and aggregation are of importance in the development of arterial thrombosis and platelet coagulant activity in venous thrombosis.[30]

It has been proposed that stasis, vascular injury, and platelet hyperactivity are the possible underlying pathophysiology for initiation of vascular thrombosis.[31] Therefore, the mechanisms by which blood hypercoagulability and platelet hyperactivity occur is of crucial importance. The surgical trauma to cells and the subsequent release of thromboplastic material into the circulation could activate the coagulation mechanisms and account for the described abnormalities in platelet function.[16] However, the elevation in plasma catecholamines induced by surgery to levels which affect platelet aggregation may also account for the development of deep venous thrombosis which has been frequently observed in surgical patients.

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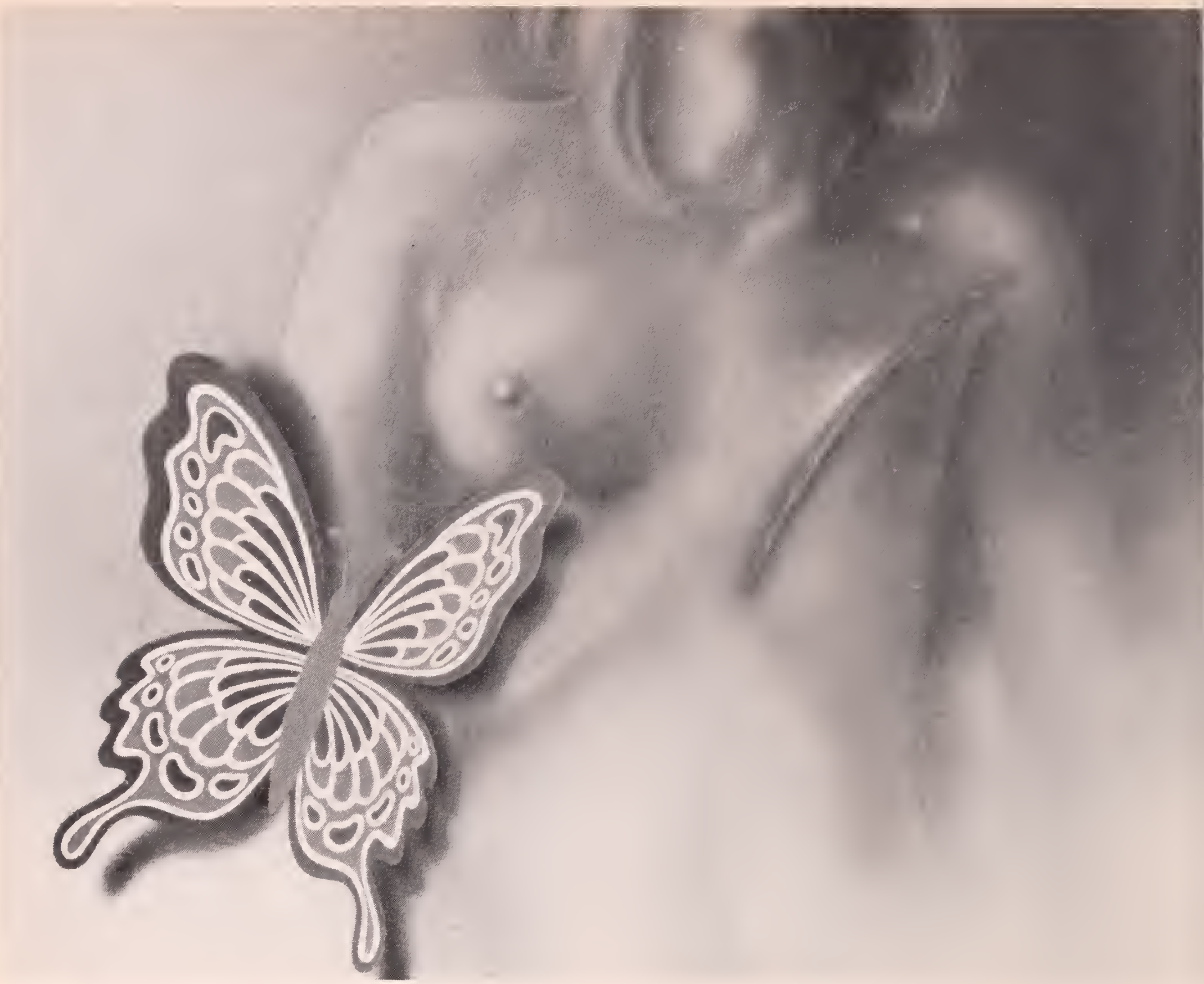

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Mental Illness

Involuntary admissions in New York State

This article is written to serve as a brief guide to procedures of involuntary admission and their associated legal liability. Several suggestions are made to help minimize physician liability risk. Recent court decisions have upheld the validity of involuntary admission for protection of the mentally ill and the community. Since the legislature has ceded part of the judicial process directly to physicians, awareness of how to properly utilize these procedures is needed by primary care and emergency care physicians in New York State.

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The difficulty that involuntary admissions places on the physician is that the physician will often not be in therapeutic alliance with the patient, but may be viewed by the patient as an adversary. Usually this opinion changes, and many patients admitted involuntarily may be reluctant to leave the institution at a later date.[1] However, for the primary care physician faced with a psychotic patient, the initial conflict may be unavoidable if the patient is unable to maintain himself or presents a danger to himself or others. Reluctance to take appropriate action may be enhanced by unfamiliarity with changing legal statute or court decisions and concern over personal liability.

The courts are moving to clarify questions of procedure and evidence in a direction that makes commitment proceedings less ambiguous. Familiarity with the extent of these recent court decisions and legislative revisions will enable the physician to proceed more comfortably when involuntary admission is necessary.

New York State rewrote and renumbered the Mental Hygiene Law that had been extensively patched since its initial passage in 1927, with such changes in effect since April 1, 1978. Any licensed physician in New York State may legally participate in civil commitment proceedings, and thus render important aid to a patient and the community. This article will review the current concepts essential for such involvement. Several practical recommendations not rigidly required by law are also given. Entirely different procedures are utilized for the mentally disabled individual, such as the retarded.

Types of mental health admissions

The New York State OMH (Office of Mental Health) provides different forms for any inpatient treatment of mental illness, each reflecting the different level of autonomy granted the individual. The consequences of an involuntary admission on form 471 OMH are loss of liberty, and the potential for the institutional staff psychiatrist to prescribe treatment he deems appropriate, without patient consent. However, the law also clearly places a burden on the institution to document that treatment is actively ongoing and might reasonably be expected to lead to improvement in the patient's condition.[2]

Even a voluntary admission to an institution places constraints on an individual's liberty. Although a voluntary patient may refuse treatment, he is not necessarily free to leave at any time. The hospital director has a clear authority to detain such an individual for 72 hours, while pursuing change of status to involuntary. If the process is not completed within that time, then the patient is free to leave immediately.[3] One type of "voluntary" admission is that of a parent or guardian signing a minor into an institution. Even if the minor protests, he may be held. An informal admission is equivalent to any other medical admission to a hospital. Technically, if the patient insists on leaving, the staff must let the patient leave the hospital. This status might be utilized for a severely impaired individual who is withdrawn or passive. Indeed, the question has been raised about the difficulty of proving volition, in contrast to passivity, in many voluntary admissions.[4]

A patient who is civilly committed for mental illness is not considered legally incompetent. In fact, the Mental Hygiene Law specifically states that no other legal abilities, including licenses, signing of contracts, voting, or possession of property, are to be limited or infringed on due to commitment (Section 33.01). Declaring someone legally incompetent is a separate proceeding that cannot bypass the courts, in contrast to the involuntary admission.

Procedures

2PC (two-physician certification). The most important type of involuntary admission to the primary care physician is that of involuntary admission on medical certification (Section 9.27). This allows for

TABLE I. Forms of application for mental health admission

OMH Form	Name	Purpose
471	Application for admission of patient (involuntary patient)	For 2 PC or DCS
471a	Certificate of examining physician (mental illness)	For 2 PC only; must accompany Form 471 OMH, 1 for each physician
471b	Certificate of examination by director of community services or his designee	For DCS only; must accompany Form 471 OMH
472	Voluntary request for hospitalization	For voluntary and minor admissions or for conversion to voluntary status
473	Notice of status and rights	Informal admission
474	Record of emergency admission	Section 9.39

involuntary care and treatment of a mentally ill person based on certificates filed by two examining physicians. The physicians cannot be the instigators of the admission; an "applicant" must first request such involuntary admission for the patient. Application for such admission must be made in writing on form 471 OMH (Table I) by any one of a wide range of persons who know the patient. The application may be entered by any person with whom the patient resides; by spouse, parent, sibling, child, or nearest available relative; by the director of social services or of community services; by the director of the hospital in which the patient resides; and several other persons listed in Section 9.27.

The examining physicians can be any physicians with a New York State license. Neither one can be the applicant for involuntary admission. This can make commitment of an unaccompanied mentally ill person quite time consuming in the emergency room setting. The examining physicians cannot be relatives of either the applicant or patient. They also cannot be in any way involved in the management of the hospital to which it is proposed that the patient be admitted, or derive income through that hospital, except by receipt of fees through patient care. The physician cannot be a stockholder in the hospital, for example.

The concept of a 2 PC is that some person in the community who has cause to know the patient intimately, brings the patient to the examining physicians. They adjudge the patient to (1) have a mental illness, (2) require care and treatment as a patient in a hospital as essential to his welfare, and (3) find the patient so impaired in judgment that he is unable to understand the need for such care and treatment. The two physicians then fill out separate certificates (471a OMH). They may examine the patient jointly, but must file separate certificates. The patient is then brought to a facility approved by the Office of Mental Health for involuntary admissions. He is again examined on admission by a psychiatric staff member of that hospital. The patient may then be held in the facility for 60 days. The hospital director is required to notify the Mental Health Information Service on admission, and within five working days must also send notice of such admission to the nearest relative other than the applicant.

The certifying physician is expected to make an attempt to notify the physician or psychologist who had been treating the patient prior to this admission. A primary care physician who had been treating the patient previously and now participates in certification meets this obligation on the basis of his prior relationship with the patient. The emergency room physician, however, has an obligation to try to discuss such admission with the prior physician or psychologist, even if he knows that the individual professional contacted would be unable or unwilling to participate in the certification process.

The statements are executed under penalty of perjury, but do not require the signature of a notary.

The certifying physician is also expected to consider alternate forms of care and treatment, such as relatives maintaining the patient at home with outpatient followup provided. Only if this is unavailable or inadequate, can involuntary admission be sought.

This section does not require, or even imply, that the patient is a danger to himself or others, except that his personal neglect or delusion would be likely to eventuate in harmful consequences. The court has stated that a finding of mental illness alone does not justify involuntary confinement unless there is evidence that the patient cannot live safely in freedom.[2] Conversely, a person known to be suicidal who is not mentally ill, such as a terminal cancer patient, would probably not qualify for admission under this section. Basically, the State is utilizing its powers to curtail liberty in the interest of providing care for its citizens who are unable (in this case because of emotional disorders) to care for themselves. This is the legal principle of parens patriae; and forms the basis for Section 9.27. Suicidal ideation or attempt usually forms prima facie evidence of mental illness, except in the unusual instance already illustrated as it implies a thought disorder which is likely to improve with treatment. However, an angry, menacing individual who is not delusional, although possibly not rational, for example, a jilted lover, would not appropriately qualify under this section even though he might be of temporary danger to others.

Even if two-physician certification has been properly executed, there may be drawbacks. In the case of *Siegel v. City of New York*,[5] the court reestablished that "insane persons who were not dangerous were not liable to be arrested or restrained," and "upon one who did the restraining rested the burden of showing . . . the urgency and necessity for the immediate restraint."[5,6] Thus, a person who is severely impaired may not be forcibly transported involuntarily by police personnel or restrained unless necessary to prevent the person from doing some immediate harm to himself or others. In practical terms, family members accompany the patient to "nonforcibly" see that he gets to the facility.

Further, the admitting physician at the psychiatric facility might refuse the admission. This might be for reasons of jurisdiction, for example, a resident of another state, or if that physician disagrees with the judgments of the certifying physicians. Certification does not guarantee admission. Thus, Section 9.27 is specifically designed for patients with thought disorders that require treatment. However, an involuntary admission may, on occasion, be of value for a nonpsychotic individual who needs help, such as a confused individual requiring 24-hours' care, but refusing voluntary hospital admission.

DCS (director of community services). Unlike a 2 PC, a DCS certification (Section 9.37) implies a substantial risk of immediate physical harm to the patient himself or others. Although threats of suicide are adequate to sustain invoking Section 9.37, a danger to others technically is defined as "homicidal or other violent behavior by which others are placed in reasonable fear of serious physical harm." Specific verbal intent to harm another person with a reasonable plan to do so in the immediate future would seem to meet the spirit if not the letter of the law. No delusional thoughts need be present.

Any licensed New York State physician may be appointed as a designated examining physician by the director of community services, subject to approval by the commissioner of mental health. He is entitled to receive a reasonable fee for services rendered in performing such examination. There is no limit on the number of physicians who may be appointed in any area by the local director. Expenses incurred are a charge on the county in which he is designated. Once appointed, his power to act remains in force until revoked by the director or commissioner. A designated examiner has the authority, under Section 9.37, to take into custody, detain, and transport any such person. Further, on written request, it is the duty of any nearby police personnel contacted to take such person into custody and provide transport as directed by the director or designee. No such duty exists under Section 9.27. In practice, police usually perform such services without written request.

A person already admitted to a hospital under any section of Article 9 of the Mental Hygiene Law cannot be continued in the same facility or have involuntary admission established by Section 9.37. Thus, an informal patient cannot be certified under a DCS even if violent, although he would be eligible for involuntary status by a 2 PC.

A person who requires admission under either Section 9.27 or 9.37 shall not be refused admission by the examining physician of the psychiatric facility solely because he suffers alcohol or substance abuse. However, since discretion for admission remains with the admitting physician, acute intoxication often encourages a search for other reasons that the patient is inappropriate for acute admission, and may play a role in whether or not involuntary admission is completed.

A typical proceeding under Section 9.37 might occur when a family member brings to the emergency room a patient who states to the physician that he will kill himself at the first available opportunity. The patient refuses voluntary admission. The director or designee is called to the emergency room where a form 471 OMH, accompanied by inserted form 471b OMH, is completed. The family member did not formally apply for such admission. The designee is both applicant and certifying physician. The police would be called and the patient brought to the psychiatric facility. If the examining physician at that facility agrees with the need for immediate inpatient care and treatment, he then admits the patient. The form 471 OMH is filed at the facility, and thus must be brought with the patient. If the patient stays longer than 72 hours, he may either become a voluntary patient or another examination must be completed within that time by a member of the psychiatric staff of the hospital. The patient then could be held up to 60 days, under the same due process restrictions as Section 9.27. For this entire proceeding no court involvement is necessary, despite the possible forceful detention of the patient.

An entire office, the Mental Health Information Service, was created to aid in due process protection for all types of mental health admission. Details of this are beyond the scope of this article, but this process has been held on appeal to meet appropriate standards of due process protection in New York State.[7]

Emergency admissions (Section 9.39). A variant of Section 9.37 is Section 9.39, which allows several mechanisms for a patient to be forcefully detained and transported to a facility for examination and possible involuntary admission. The concept here is that a person exists in the community who is a clear immediate danger to himself or others, and who would be likely to benefit from inpatient care and treatment. However, only a limited number of psychiatric hospitals are approved for Section 9.39, and form a subset of hospitals approved for Sections 9.27 and 9.37. Some mental health districts have no approved facilities. One difference in 9.39 facilities is that the patient is brought directly to the facility without prior medical examination, and may require emergent medical or surgical therapy for serious substance abuse or neurologic complications.

This procedure can be utilized by three different mechanisms provided in Article 9. The simplest procedure is that the patient may be brought to a 9.39 facility by any person. This person's name is entered on the record as well as pertinent circumstances leading to the request for involuntary admission, but no formal applicant is required. If the admitting staff physician of the hospital feels the patient meets the criteria given, he is involuntarily admitted. A psychiatrist must corroborate these findings within 48 hours of admission. The patient can then be held for 15 days. Admission can be extended to a total of 60 days without court intervention if two-physician medical certification is also completed within 15 days of his arrival.

A peace officer who feels a person appears to be mentally ill and is conducting himself in a manner likely to result in serious harm to himself or others is also empowered to take such person into custody. He may then remove him to a 9.39 facility, or detain him in a safe and comfortable facility pending transfer to such a 9.39 facility.

Any person can notify a court of inferior or general jurisdiction, in a verified statement, that a person is apparently mentally ill and is conducting himself in a manner that would be deemed disorderly conduct if he were sane, or is likely to result in serious harm to himself or others. The court can issue a warrant directing that such a person can be brought before it. The court can then order the person to be taken to a 9.39 facility for determination of need for admission under that section. The court does not have to determine mental illness. It must only establish that there is adequate evidence to require that further examination should be done by the fully qualified examiner at the 9.39 facility. Finally, a family member (parent, spouse, or child), any licensed physician, health officer, or peace officer, can report to the director of community services, or his designee, that a person has a mental illness which meets the 9.39 criteria. The DCS can then direct the peace officer to transport any such person to a 9.39 facility, there to be examined for possible admission under that section.

Liability

Several prior cases have established that, without evidence of negligence, fraud, or malicious intent, there exists no liability on the state or the examiner for false imprisonment.[8] Since witnesses may later change their stories, specific statements to the examiner should be documented on the application forms with specific attribution. Any statements about the patient's behavior which are written down by the physician could be cosigned by their author, even though this not a legal requirement. Frequently, a 2 PC is undertaken at the request of family members who are no longer able to tolerate the patient's irrational behavior. Asking the nearest available relative to write down statements about the patient's behavior on the application adds strong documentation concerning the circumstances that led to certification.

Hearsay is definitely allowable to be utilized by the examining physician in forming his judgment, and may be the only source of information when dealing with a mute or uncooperative patient. However, it would seem inadvisable to utilize such hearsay when the patient flatly denies the existence of the alleged events or behaviors, and there is only one source to corroborate them. I have found that truly psychotic patients may deny given events, but when their side is elicited, they object primarily to interpretations that do not fit into their delusional scheme. In the process of explanation afforded the patient, delusional or disordered thought processes will often more clearly be revealed. Time is the main element needed for a fair evaluation of a conflictual situation. Once a decision is made, a cardinal rule is always to tell the patient personally that he is going to be an involuntary patient at a given facility. Trying to obtain cooperation by misleading the patient would engender distrust that will later make therapeutic alliance more difficult. A strongly objecting patient should be best confronted with a goodly number of personnel present in all cases where difficulty is expected. Especially with a violent patient, the presence of adequate staff will diminish the likelihood of physical confrontation.[9]

The degree of evidence required for a physician to establish the need for involuntary admission is subjective. The courts have held that a statement that merely rewrote the criteria on Form 471A technically met legal requirements, although dissatisfaction was expressed with this approach.[10] The court felt that the desirable substance of factual substantiation for such admission should include specific data demonstrating the existence of mental illness and the need for care and treatment as an inpatient. Since the courts are not involved with the initial admission, the substance of the evidence will not be an issue unless the patient or friend requests a hearing.

Essential information will depend on the situation. A suicidal attempt with statement to try again as soon as possible would easily meet the criteria of 9.37. But involuntary admission would only be mandated if a voluntary or informal admission was refused. Witnessed statements, behaviors, or hearsay of such behavior from persons likely to be acting in the patient's best interest should be stated under Sections 9.37 or 9.39.

A mental status examination should be completed for two-physician certifications. Even observed inability of the patient to communicate is important. Documentation of a patient's objection to treatment should ideally be briefly mentioned.

Since state facilities may be reluctant to take an informal admission due to lack of ability to legally retain such a patient, a practical problem arises in a nonobjecting patient with severe thought disorder. In this circumstance, a 2 PC gives the facility the ability to appropriately treat the patient. If this patient needs care and treatment essential for his welfare, a 2 PC allows such treatment without exacting an informed consent that would be a sham.

If a patient has resources to exist safely in the community, a 2 PC should not be sought simply because treatment might improve the quality of his life. This "least restrictive alternative" was reaffirmed by the U.S. Supreme Court in 1974.[11] The legal right for a state to hold persons against their will for reasons of mental illness was firmly upheld by a unanimous decision of the U.S. Supreme Court. In *Addington v. State of Texas,*[12] handed down April 30, 1979, the court cited the validity of such proceedings by the legal principal of parens patriae and by the state's police power to protect the community.[12] A "clear and convincing" standard of evidence is required to meet minimum due process requirements. A recent article elaborates the implication of this decision.[13]

Objection by a family is not sufficient to justify a director of a state hospital to refuse to accept a certified patient.[14] However, under the least restrictive alternative, it would seem that either an element of dangerousness must be present, or that there is strong suggestion the family could not give adequate care. Notifying the nearest family member, although not technically required, is not only courteous, but will also help ascertain the possibility of later litigation.

Comment

Very few involuntary admissions are appealed, approximately 1 percent in one study.[15] Only a small minority of patients require involuntary stay beyond 60 days. Most patients have positive feelings about their admissions on discharge, even when objecting initially.[16] Patients with organic brain syndrome may fall between the cracks in this system. A patient who deteriorates to become abusive, to wander aimlessly, or occasionally to have violent outbursts, can be frightening to the spouse. Although he may be controllable on psychotropic agents, if this fails, commitment would be only palliative. As mentioned earlier, a patient may be kept as involuntary only if he is receiving treatment likely to improve his condition. Thus, such a patient might be discharged home shortly.

In the presence of severe organic disease, the spouse might do best by having the patient declared legally incompetent through a court process. In this manner, the patient can receive proper and involuntary treatment in a nursing facility.

By being aware of these options for care, the physician can render the best available care to his patients and their families. One can only hope that these procedures are now stabilized adequately to at least last this decade. New York State is fortunate to have a mental hygiene law that is consistent with Federal decisions and good patient care with adequate due process.

Only one paradox remains. A patient is theoretically objecting to being admitted under Section 9.27. Yet such certification often takes place outside of the psychiatric facility. Since restraint cannot be utilized without probability of immediate harm, technically a patient cannot be brought to the facility. In practical terms, the patient almost always goes along without strong verbal or physical opposition to the action. However, legal protection for such transport under 9.27 is technically desirable and should be formally recommended to the State Legislature.

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CAT scanners save money in treating cancer

Computerized tomography—hailed as a major advance in medical technology but also held up as a prime example of why medical costs have risen—actually saves money when used to guide the radiation treatment of cancer, says a report in the September 19 Journal of the American Medical Association.

The machines, known popularly as Cat Scanners, are expensive, costing upwards of half a million dollars. When they first became available in the 1970s, every hospital immediately wanted one. But many critics questioned whether the machines would ever become cost effective.

Dr. Michael Goitein, of Massachusetts General Hospital, Boston, reports on a study in which he found that use of the whole-body scan to easily and accurately delineate malignant tumors actually saves money in the long run.

A body scan costs around $250, Dr. Goitein reports. Cost of therapy which follows the body scan probably averages $12,000 for cancer treatment. But total cost of treatment when local control of the tumor fails is estimated at $36,000. There are many fewer failures of initial treatment when the exact diagnosis of the CT scan is available to the physician.

With use of the CT scan, there is a better than even chance that the resulting therapy will bring local control of the tumor. This knowledge is gained at a cost of $250 in a treatment program that will cost $12,000 altogether. Thus, he says, it would be poor economy indeed to fail to use the scanner to save money on health care costs. When the initial treatment fails, there is an additional $24,000 in costs required to cope with the tumor.

"It no longer seems reasonable to question whether CT has an important role to play in the treatment of malignant disease," Dr. Goitein declares.

Private Psychiatric Participation in Medicaid

Practitioner ebb and flow

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With the passage of Public Health Law 89–97 in 1965, the United States government undertook a commitment to provide medical care within the private sector to the poor and medically indigent, an opportunity rarely available in the past. This report is part of an ongoing study of the largest publicly funded psychiatric health-care delivery system in the nation, the City of New York Department of Medical Assistance, Medicaid. Previous work revealed that Medicaid recipients' access to the private psychiatric sector substantially increased following the implementation of this social program.[1] However, this access was slanted toward the delivery of care by foreign medical graduates.[1] This article details the financial and provider dynamics of private psychiatric care funded by the City of New York Medicaid Program for the years 1971 to 1975, the last five years for which complete data were available. The impact of governmental administrative policy in generating distortions in the Medicaid delivery system will be elaborated. The pitfalls discovered within this system may help to elucidate similar problems that might arise with respect to the institution of a national health plan.

TABLE I. Total payments by the City of New York Department of Medical Assistance to private psychiatric practitioners

Payment Year	Dollars
1971	2,236,614.43
1972	3,280,395.39
1973	3,681,698.47
1974	5,088,811.41
1975	6,952,455.04

TABLE II. Distribution of payments to private psychiatric practitioners by the City of New York Department of Medical Assistance

Percentile	Payment Year 1971	1972	1973	1974	1975
10	199.50	160.00	158.81	166.25	180.00
20	483.40	380.00	440.00	508.00	538.80
30	654.00	660.00	800.00	1,020.00	1,170.00
40	900.00	1,052.00	1,140.80	1,560.00	2,010.00
50	1,540.00	1,720.00	1,670.00	2,640.00	2,907.00
60	2,378.00	2,675.40	2,570.00	3,990.00	5,022.00
70	3,763.50	4,816.80	4,741.88	7,055.00	8,190.00
80	7,077.60	8,928.00	8,155.20	12,397.00	13,485.00
90	14,973.20	21,426.20	22,752.06	24,448.80	31,102.90
100	57,348.40	86,483.30	84,943.50	63,224.00	86,590.10

Method

Data were obtained from the City of New York Bureau of Medical Assistance. The departmental tax records covering the years 1971 through 1975 were utilized to obtain a complete record of all Medicaid payments to private physicians billing exclusively as psychiatrists during those years. These records yielded data on the number of practitioners actively involved in the system during each year studied as well as on their patterns of participation. In addition, information about managerial practices of the department was gathered through interviews with administrative personnel and review of relevant documents.

Results

Perusal of the study data enables the authors to make comments about the functioning and structure of the private City of New York Psychiatric Medicaid Program. Substantial amounts of public monies have been expended on this program, with these funds consistently increasing, and rising steadily from an expenditure of slightly more than $2 million in 1971 to almost $7 million in 1975 (Table I). The sole fee reimbursement increase occurring during the years described was implemented July, 1973. The fee schedule revision raised the amount paid for an

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To research financial and provider dynamics within the private psychiatric sector of Medicaid, complete data were obtained for the years of 1971 to 1975 from the City of New York Bureau of Medical Assistance; expenditures rose from $2 million to $7 million during those years. The data revealed: (1) High registration but poor participation, (2) most participate at low dollar levels, median payments never exceeding $3,000, with never more than 30 percent receiving more than $10,000, and (3) when fee schedules increased to more appropriate levels, participation increased substantially. It seems that private psychiatrists are not prejudiced against the poor, but, rather, are resentful of an unfair, unwieldy system.

TABLE III. Distribution of participating psychiatrists who received payments during the study period

Year Received					
1971	1972	1973	1974	1975	Number
NO	NO	NO	NO	YES	139
NO	NO	NO	YES	NO	43
NO	NO	NO	YES	YES	119
NO	NO	YES	NO	NO	15
NO	NO	YES	NO	YES	3
NO	NO	YES	YES	NO	17
NO	NO	YES	YES	YES	89
NO	YES	NO	NO	NO	13
NO	YES	NO	NO	YES	1
NO	YES	NO	YES	NO	1
NO	YES	NO	YES	YES	1
NO	YES	YES	NO	NO	12
NO	YES	YES	NO	YES	4
NO	YES	YES	YES	NO	17
NO	YES	YES	YES	YES	62
YES	NO	NO	NO	NO	36
YES	NO	NO	NO	YES	5
YES	NO	NO	YES	YES	7
YES	NO	YES	NO	NO	3
YES	NO	YES	NO	YES	1
YES	NO	YES	YES	NO	2
YES	NO	YES	YES	YES	12
YES	YES	NO	NO	NO	23
YES	YES	NO	NO	YES	5
YES	YES	NO	YES	NO	3
YES	YES	NO	YES	YES	6
YES	YES	YES	NO	NO	21
YES	YES	YES	NO	YES	9
YES	YES	YES	YES	NO	29
YES	YES	YES	YES	YES	247

office visit to a psychiatrist from $20 to $30, a 50 percent increase. Given the prolonged lag time between billing and payment, this fee increase first became manifest in 1974. In comparing each year with its succeeding year for the five years studied, it is noted that the median payments to participating private psychiatrists who had received monies generally increased (Table II). The dramatic rise of 58 percent in median payments between 1973 and 1974 reflects not only an increase in service delivered, but also the upward revision of the fee schedule. In 1974, the year following the increase in fees, more physicians entered the system than in any other year studied.

Taking any one year as a starting point, a consistent pattern of participation of private psychiatrists in the City of New York Medicaid system is documented (Table III). Of 409 psychiatrists receiving payment in 1971, 71 percent were still receiving payments in 1975. Similarly, of 454 who received payment in 1972, 74 percent received payment in 1975.

Another approach toward the understanding of the role of private psychiatric practitioners within Medicaid is to view their ebb and flow as participants from year to year. It is interesting to note that of the 409 psychiatrists receiving Medicaid reimbursement in 1971, 60 percent received payment in every one of the following four years, 14 percent in three of the next four years, and 8 percent in either one or two of the following years; 18 percent never again received payment. A similar pattern was noted for those receiving their first payment during the years under review in 1972. There were 56 percent who received funds in each of the following three years, 20 percent in two of the next three years, and 12 percent in only one of the next three years; 12 percent never billed again. Thus, it would seem that approximately three quarters of those who received reimbursement in any given year can be expected to continue some participation during ensuing years.

According to the Biographical Directory of the APA (American Psychiatric Association), 2,257 member psychiatrists are actively practicing in New York City.[2] The City of New York Bureau of Medical Assistance has listings for 2,092 psychiatrists, of whom it has been reported that 80 percent are APA members.[1] It is interesting to note that the greatest number of psychiatrists to receive reimbursement from Medicaid in any year was 710. Therefore, during no year could more than one third of either roster have been actively participating within Medicaid. Thus, a minority of psychiatrists become active Medicaid participants, but those who do so participate in an ongoing manner.

The data reveal a marked difference between payments to private psychiatrists who received monies in only one year and those who were paid at least once more during the five-year period covered by the study. Median payments to those physicians who received payments only once during the years studied ranged from $230 to $360. Those who received payments in at least two of the years studied received between $730 and $1,840 in the initial payment year. Those physicians who would continue to treat Medicaid patients thus received from 3 to 10 times as much in payments, although still a relatively small sum in their initial year, as those who decided against further participation.

Examination of all payments by the City of New York Bureau of Medical Assistance in the years between 1971 and 1975 reveals that in no year did median payments to private psychiatrists exceed $3,000. The median payments represent a consistent rate of increase in the health care provided, when the last two years studied are adjusted, to account for the 50 percent increase in the fee schedule (Table II). It can also be seen that at no time did more than 30 percent of participating psychiatrists receive more than $10,000.

A review of the payment policy of the City of New York Bureau of Medical Assistance during the years studied reveals a practice of prepayment to those Medicaid providers who consistently billed more than $2,000 per month; psychiatrists capable of benefiting from this program represented only the upper 14 percent of all those receiving payment. As established in 1971, eligible psychiatrists could post a $5,000 bond and then receive a prepayment amounting to 95 percent of their anticipated billings. This policy was amended as of 1974 so that a bond was no longer required and prepayment was reduced to 75 per cent of anticipated billings. The prepayment policy was terminated by the program as of August 1, 1976.[3,4]

Comment

Despite the fact that essentially the same number of psychiatrists are registered with Medicaid as are members of the APA in New York City, with an 80 percent overlap between the groups, two thirds of eligible psychiatrists choose not to participate, at any given time, within the Medicaid system.

It is evident that the private sector rendered increasing amounts of service to the Medicaid-eligible population during the years studied when one recalls that payments are directly linked to services provided. In addition, this increasing amount of money is being paid to a steadily increasing number of participants. The roadblocks militating against an even broader participation include fee schedules substantially below those prevailing in the private psychiatric sector, long turn-around times for reimbursement, and arduous paper work, including the necessity of prior approval if visits exceed 15 sessions during a 12-month period. The breech of physician-patient confidentiality necessitated by the routine disclosure of diagnosis and medications prescribed, as well as periodic audits, during which the entire patient record may be reviewed, may represent another factor tending to diminish participation.

These drawbacks to participation were not likely to discourage large billers entitled to prepayment. Rather, administrative policy favored physicians deriving substantial Medicaid income, those who often clustered in shared health facilities commonly referred to as "Medicaid Mills." Administrative directives would seem to have worked at cross-purposes with legislative intent.

It should be noted, however, that for those individuals who do become involved in the system, the attrition rate over a four-to-five-year period is less than 25 percent. Certainly, the prepayment policy encouraged large billers to remain in the system; only 7 percent of Medicaid private psychiatrists receive more than $38,000 per annum. Therefore, the remainder seem to be carrying out the thrust of the Medicaid legislation, in that they incorporate Medicaid patients into their broader private practice.

In conclusion, it would seem that if physicians had felt that they were being treated equitably by this government-administered program, more would have participated. This hypothesis finds support in the fact that the greatest rise in participation during the years studied occurred following the single reimbursement increase that took place. It is important to note that psychiatrists do register, and it would seem that they would be willing to treat the medically indigent if programatic obstacles were removed.

If physicians are to support a national health insurance program, it is important that the defects inherent in the Medicaid program not be perpetuated. Physicians must feel that their professional prerogatives have not been usurped by administrative or legislative fiat.

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SYMPOSIUM

Cancer Update 1980
Advances in Diagnosis and Epidemiology

Laparoscopic Diagnosis of Malignant Liver Disease

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Laparoscopy, or peritoneoscopy, is done by injecting gas into the anterior peritoneal space. Peritoneal contents may then be inspected by insertion of an endoscope through a small incision in the anterior abdominal wall. The techniques of laparoscopy have been extensively described.[1]

At laparoscopy it is estimated that up to 70 to 80 percent of the liver surface is seen if a tilt table is used, and a probe is utilized to lift the liver.[2] Therefore, laparoscopy is particularly useful in diagnosing neoplastic diseases that affect the liver in a focal fashion.[3] This is particularly true at early stages when tumor nodules are small and widely scattered, decreasing the probability of a positive hit by "blind" percutaneous biopsy. At laparoscopy, biopsies can be visually guided with high accuracy.[4]

Liver appearance

Liver neoplasms usually appear as raised white-yellow irregularly round masses of variable size ranging from a few millimeters to several centimeters.[5] They may have depressed centers, due to tumor necrosis, creating a "volcano" or "moon crater" appearance. They may be vascular, especially primary hepatocellular carcinomas and metastases from renal carcinoma, islet cell tumors, and carcinoid tumors. Other metastatic tumors may be vascular around the rim of the tumor. A completely intrahepatic neoplasm, below the liver surface, may create a bulge or abrupt change in shape of the hepatic contour. Fibrosis around an intrahepatic tumor may sometimes create an area of depression on the liver surface. Surface lesions may cause intrahepatic-peritoneal adhesions. Hodgkin's disease in the liver, at an early stage, shows multiple small white-yellow nodules, a few millimeters in size, which grow larger and may become confluent with progression. In about one of six cases of Hodgkin's disease involving the liver there are no surface lesions visible at laparoscopy. In non-Hodgkin's lymphomas, the liver may become diffusely infiltrated with neoplastic lymphocytes without any focal abnormality.[6] In some cases, however, particularly in histiocytic lymphomas, large confluent masses may develop in the liver.

Liver scans

Visual inspection of the liver at laparoscopy can spot tiny lesions less than millimeter size, an accuracy not likely to be matched by ultrasonography of computerized tomography in the near future.

Standard liver scans using technetium-99m are useful prior to laparoscopy. Scans may be used to guide deep biopsies if there are no surface lesions visible and are useful in planning insertion sites for the laparoscope. Scans also add specificity to blood tests of liver function and screening for neoplastic liver disease, as well as help in deciding whether or not to perform laparoscopy or percutaneous "blind" biopsy.[7]

Diagnostic accuracy

In our series of 65 patients with liver tumors, laparoscopy diagnosed 60 (92 percent accuracy), and 5 required laparotomy for diagnosis. Of 65 patients, 23 had prior negative percutaneous biopsies.[7] This result was similar to other studies which have been published including one from Italy in which percutaneous biopsy was performed immediately prior to laparoscopy.[8]

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Hepatic neoplasms are biopsied under direct vision at laparoscopy by forceps, aspiration needle, cutting needle, or cytology brush for surface lesions.[9] A problem may arise when postoperative adhesions obscure an area of interest on the liver, resulting in a missed diagnosis at laparoscopy. Another problem is neoplasm location in areas not well seen at laparoscopy. Usually, posterior or very superior areas of the liver are not visualized. Omentum adherent to the liver may also obscure malignant liver disease, while the presence of marked ascites may obscure lesions. Lesions that are intrahepatic only may be missed at laparoscopy if they do not appear as a distinct bulge.

Laparoscopic vs. "blind" biopsy

Extensive prior abdominal surgery would be an indication to proceed with "blind" biopsy rather than laparoscopic-guided biopsy because of the likelihood that intra-abdominal adhesions increase risks and may decrease the effectiveness of the laparoscopic procedure. Evidence of extensive liver tumor on physical examination, or by liver function tests and liver scans, is also an indication to proceed directly to percutaneous needle biopsy. In this setting the probability of a positive "blind" biopsy is about 70 percent.[10,11] A scan defect on the lateral aspect of the right lobe of the liver in areas from where usual Menghini biopsy samples are taken is also an indication for this type of biopsy.

There are several areas where it is best to proceed directly with laparoscopy and postpone nonguided biopsy tests. One indication would be a left lobe lesion seen only on scan. "Blind" biopsy of the left lobe, or aiming at scan defects with subcostal approach, increases biopsy risks. The left lobe is well seen at laparoscopy, and biopsies can be visually guided into this area with high degrees of safety and accuracy.[1] If there is evidence of minimal liver involvement with a normal-sized liver on examination, only slightly abnormal liver function test results and little or no scan abnormality, the probability of a positive "blind" biopsy is only 20 to 30 percent. At times it may be necessary to confirm a possible vascular or cystic lesion without biopsying it and, of course, laparoscopic examination can do this. Cytology brushings may be an atraumatic means of obtaining tissue in this setting or in settings of biliary obstruction.[9] If there is suspicion of liver neoplasm in spite of a recent negative "blind" biopsy, then laparoscopy may be effective in making a diagnosis.[7]

Laparoscopic staging

Staging the liver in Hodgkin's disease is important since liver involvement is almost always an indication for chemotherapy. Laparoscopy with multiple liver biopsies is highly accurate in staging liver for Hodgkin's disease when compared to laparotomy standard.[6,12,13] Blood tests of liver function, liver scans, and "blind" biopsies of the liver are very inaccurate in early Hodgkin's disease.[14] Laparoscopy also adds to the accuracy and staging of non-Hodgkin's lymphomas.[15] Laparoscopy is indicated in Hodgkin's disease and non-Hodgkin's lymphomas when the responsible oncologist wishes to accurately stage the liver but avoid laparotomy.

In primary hepatocellular carcinoma, laparoscopy may be useful in staging the neoplasm for possible surgical resection. At laparoscopy, peritoneum and diaphragm can be examined for evidence of local tumor spread; malignant ascites can be discovered. It can also be defined whether both liver lobes are involved with multifocal disease, and whether severe cirrhosis is present, both of which are contraindications to attempt curative surgery. In the event that the malignant condition is unresectable, guided biopsy at laparoscopy can make a histologic diagnosis in a high percentage of cases.[7,8]

Morbidity

Laparoscopy is very well tolerated, particularly when compared to laparotomy in diagnosing malignant disease involving the liver. The complication rate of laparoscopy is very acceptable with about 1 per 100 patients experiencing some mild complication and about 1 per 1,000 or less mortality rate.[16,17] The procedure is carried out under local anesthesia and mild sedation, and patients who are too ill for general anesthesia may often have laparoscopy safely performed. An operating room is not required and laparoscopy may be routinely carried out in an endoscopy area. Patients recover from laparoscopy usually within one to two hours, are able to be mobilized and fed the same day of the procedure. In general, laparoscopy will avoid the "open, biopsy, and close" type of laparotomy, and definitive diagnosis may be obtained at a much lower expense and morbidity. Accurate diagnosis of malignant liver disease allows proper therapeutic planning and prognostic guidance.

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Breast Cancer

Epidemiology and screening

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Certain epidemiologic features of breast cancer are of major clinical importance. These data help to identify high-risk women and are useful in developing and evaluating various screening strategies. Attention must also be given to the possibility that a small proportion of breast cancers are the result of various forms of medical therapy. These iatrogenic cancers are preventable, thus underscoring the need for additional studies of drug-induced breast cancers as well as study of the important question of susceptibility to radiation carcinogenesis.

The literature contains several excellent reviews of breast cancer epidemiology,[1,2] which examine in detail the etiologic role of endogenous hormone environment, viruses, diet, in addition to other host and environmental factors. The present review, therefore, focuses on epidemiologic data which are currently useful to practicing clinicians.

High-risk groups

In 1977, 9,360 new female breast cancer cases and 3,673 deaths were reported to the New York State Cancer Registry. Breast cancer mortality rates have remained unchanged in New York State for several decades. During this same time period there has been a slight but gradual increase in incidence.[3] The predominant histologic type is duct adenocarcinoma, approximately 80 percent in most clinical series, with lobular and medullary carcinoma the next most common types.[4] International variations are large, with the United States having one of the highest incidence rates.[2]

TABLE I. Age distribution of female breast cancer in New York State, 1977

Age Group	Number with Breast Cancer	Percent	Rate per 100,000 per year
0 to 34	230	2	5
35 to 44	828	9	80
45 to 54	1,869	20	178
55 to 64	2,292	24	233
65+	4,141	45	325
TOTALS	9,360	100	99

TABLE II. Family history and breast cancer risk (percent)*

Family Member	Lifelong Breast Cancer Risk (year of age)		
Breast Cancer	20	45	65
None	7.3	6.8	4.7
Mother	13.2	12.3	8.4
Sister	18.4	17.1	11.7
Either mother or sister	14.7	13.7	9.3
Both mother and sister	41.1	38.3	26.2

* The lifelong breast cancer risk (percents) at various ages is estimated by combining data from Bain et al.[7] with that of Zdeb.[8]

Age has a major impact on incidence. Breast cancer is rare before age 30, then increases in frequency throughout life. It is the leading cause of death for women in their forties, but its prevalence is greatest in women over 65, for whom risks from other diseases have also increased in frequency. The incidence and relationship of age to breast cancer is shown in Table I.

Factors affecting at-risk women are a previous primary cancer in the other breast, family history, reproductive experience, and fibrocystic breast disease. Cancer in one breast is associated with contralateral breast cancer risk of 7 to 10 percent,[5] although even higher rates have been reported.[6] These contralateral cancers are generally considered to be second primaries.[5]

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According to several studies,[7] having a mother or sister with breast cancer increases a woman's risk by two to threefold. Bain et al.[7] found that a maternal history of breast cancer increased a woman's risk of this disease by 80 percent, while having a sister with breast cancer increased the risk by 150 percent. These associations were stronger when relatives were diagnosed at an early age. The impact of family history on breast cancer risk is shown in Table II. These crude estimates were derived by combining data from Bain et al.[7] with Zdeb's[8] calculations of cancer risk in New York State.

Cancer and reproduction

The effect of reproductive experience on breast cancer risk has been carefully delineated by MacMahon and his colleagues.[2] Breast cancer risk is associated with the age at which a woman bears her first full-term child. A woman who delivers her first child before age 18 has only one third the lifetime risk of that of a woman who delivers for a first time after 35 years of age. A nulliparous woman's risk closely approximates the elevated breast cancer experiences of women who have their first pregnancy at age 30 to 34 years. The benefit associated with early pregnancy appears to be limited to first full-term births with additional pregnancies conferring little or no additional protection. Age at time of first delivery has decreased slightly in New York State (mean age at first delivery was 24.5 years in 1950 and 23.4 years in 1975), but it is not enough to foresee a noticeable impact on breast cancer incidence. Janerich[9] observed that early first pregnancy may provide protection against a majority of those cancers which occur after age 40, but yet may actually promote the rare tumors which occur in younger women.

Fibrocystic breast disease is associated with a two- to fourfold increase in breast cancer risk.[1] This increased risk persists for at least 30 years after the diagnosis of fibrocystic disease. Cancer occurs in the opposite breast as often as in the breast containing cystic disease. Black et al.[10] have suggested that risk for breast cancer varies with the degree of atypia and hyperplasia seen in the benign mammary epithelium. There is little evidence that fibroadenoma increases a woman's risk for breast cancer.

Screening

BSE (breast self-examination) has been promoted for many years based on observations that the first signs of breast cancer are usually noticed by women themselves (90 percent of patients), and on the general acceptance of a relationship between early breast cancer detection and improved survival.[11] Cancer Survivorship, Report Number 5 of the National Cancer Institute's Surveillance, Epidemiology and End Results Group (SEER) showed that there was a five-year survival period for 85 percent of women diagnosed with localized breast cancer during the years 1965 through 1969. In contrast, women with distant metastases had only a 10 percent survival rate.

Recent studies suggest that routine physician examination and BSE lead to diagnosing breast cancer in its more localized stage.[12–14] In analyzing data on 293 breast cancer patients seen by the Regional Breast Cancer Program for Northeastern New York and Western Massachusetts, we estimated that breast cancer mortality rates might be reduced by 18.8 to 24.4 percent through self-examination or routine physician examination, respectively.[12] This estimate was derived by applying survival statistics to stage-at-diagnosis distributions of breast cancer patients whose tumors were discovered through various detection modalities, for example: routine physician examination, BSE, and accidental discovery by the patient.

Several authors have reported on the success of various education methods in encouraging women to perform BSE.[15–17] These studies have shown that educational programs appear to increase knowledge. One program developed a specific teaching technique which was evaluated in terms of how this approach affected the quality of breast examinations.[18–22] This research has indicated that specific skill and training in palpation and lump detection can be very effective. However, research has not shown that improved BSE frequency is gained along with marked improvement in BSE skills.

From our own research, we have found that simplicity and clarity of education messages affect the extent to which BSE is adopted.[23] We have noticed through direct observation that many women do not use the correct part of the hand (finger tip pads) when practicing BSE. In addition, many do not press firmly enough, and do not adequately palpate all areas of the breast. These three factors appear to be important determinants of a woman's ability to detect breast lesions. However, further investigation is necessary to determine which BSE teaching methods are most effective as well as demonstrate which instruction will result in better and more frequent examinations.

Mammography

Mammography as a screening examination for asymptomatic women should be distinguished from diagnostic examinations given to women with signs or symptoms. Discussion, here, is limited to utilizing mammography as a screening device.

The chief evidence concerning mammography screening benefits comes from the HIP (Health Insurance Plan) study.[11,24] In 1963, random sampling of 31,000 women aged 40 to 64 years with at least one year's membership in HIP were offered screening examinations. After nine years of follow-up, a 35 percent decrease in breast cancer deaths was observed among women who participated in this screening program.[11] The HIP study suggested that screening with physical examination and mammography decreased mortality rates when applied to women over age 50. There was no proved effect in women less than 50 years of age. It has not been determined whether or not recent technical improvements in mammography will be reflected in a corresponding decrease in mortality rates.

The State of New York Department of Health's Bureau of Radiation Control is conducting a survey of mammographic facilities in New York State. This survey is designed to help reduce radiation exposure levels from mammography and to improve image quality. The program was developed by the Food and Drug Administration, Bureau of Radiologic Health, and is labeled "Breast Examination National Trends" (BENT). Early results indicate that while most facilities used proper techniques, there were instances of radiation levels that were too high and/or where dosage was improper for good image quality. Our radiologic health staff has found that most problems could be corrected through professional education.

In regard to radiation risk, Boice and Stone[25] noted interaction between radiation and other breast cancer risk factors. In studying 1,047 women exposed to repeated fluoroscopic chest x-rays for tuberculosis, they found that the greatest radiation risk occurred among women who were exposed just before or during first pregnancy. Nulliparous women were found to be at higher risk for radiogenic breast cancer than women who had given birth. These authors postulated that radiation may have been more hazardous during early breast development or pregnancy.

Exogenous estrogens

Oral contraceptives and menopausal estrogen replacement therapy came into wide use in the mid 1960s. Although most studies have not shown increased breast cancer risk after use of these drugs, questions regarding safety remain.[1,3]

Oral contraceptives contain estradiol or a similar estrogen, mestranol, in combination with progesterones. Examination of age-specific breast cancer trends, as reported to the New York State Cancer Registry, do not show concommitant increases in breast cancer incidence and the use of oral contraceptives. Furthermore, a number of epidemiologic studies of oral contraceptive use and breast cancer show negative overall results.[3]

Despite these negative overall results, the following are concerns regarding the safety of oral contraceptives, as potential inducers of breast cancer.

1. Latency in breast cancer development, which may be more than 15 years, could mean that effects of oral contraceptives are not yet observable.
2. Most studies to date have focused on women who have used oral contraceptives in their later reproductive years. As a consequence, few data are available on possible risks associated with using oral contraceptives in the early reproductive years. Paffenbarger et al.[26] reported a 2.7-fold increased risk of breast cancer for women who used oral contraceptives before their first child's birth, but confirmatory data are not as yet available from other investigators.
3. The effect of other breast cancer risk factors may be accentuated by oral contraceptive use. Paffenbarger et al.[26] noted increases for women with prior history of benign breast disease who used oral contraceptives for six or more years. Brinton et al.[27] found women to be at excess risk from birth control pills, only if they had a history of previous breast biopsy, family history of breast cancer, or were older when their first child was born. These data have indicated that there is need for further study of potential risks from oral contraceptive use.

Six case-control studies[27–32] concerning the relationship between breast cancer and menopausal estrogens have been reported thus far. Five of these studies[27–31] showed no consistent relationship between menopausal estrogens and breast cancer. The one positive study showed a moderately elevated risk which appeared to be limited to the subgroup of women who had intact ovaries and were exposed to high cumulative doses.[32]

Cohort studies concerning the relationship between estrogen replacement therapy and mammary cancer have generally been negative.[33–43] However, these studies suffered from a number of methodological problems. The one positive study showed that a twofold increase risk of breast cancer manifested itself 15 years after initial exposure to menopausal estrogens.[43] An even higher risk was observed among women who developed benign breast disease after initial exposure. An interaction between menopausal estrogens and benign breast disease has also been reported from one of the case-control studies. The appearance of an elevated risk 10 to 15 years following initial exposure is consistent with long latent periods of time associated with known carcinogenic agents. The use of menopausal estrogens peaked in the United States during the past decade,[44] and it may have been too early for previous case-control studies to detect an association. The short follow-up periods of early cohort studies may also be responsible for this failure to detect an association. A possible association between breast cancer and diethylstilbestrol exposure of adult women during pregnancy and experimental studies which show estrone to be carcinogenic in rats indicate a need for additional studies.[45–47]

Conclusions

In conclusion, a number of epidemiologic leads hold promise for future research on breast cancer etiology. A slight reduction in breast cancer incidence might result from lowering x-ray exposure and exogenous estrogen use, although the latter is uncertain. Increasing age, contralateral breast cancer, family history of breast cancer, late age at first pregnancy, and prior fibrocystic disease all increase risk of breast cancer.

Breast self-examination, routine physician examination, and mammography can lead to a diagnosis at an early more localized stage and thereby improve survival chances. Physicians have an important role in teaching effective use of breast self-examination. At present, mammography for screening has been shown to be effective only for women over 50 years of age.

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Radiologic Problem of the Month

Montefiore Hospital and Medical Center
The Bronx, New York

Editor

KAKARLA SUBBARAO, M.D.
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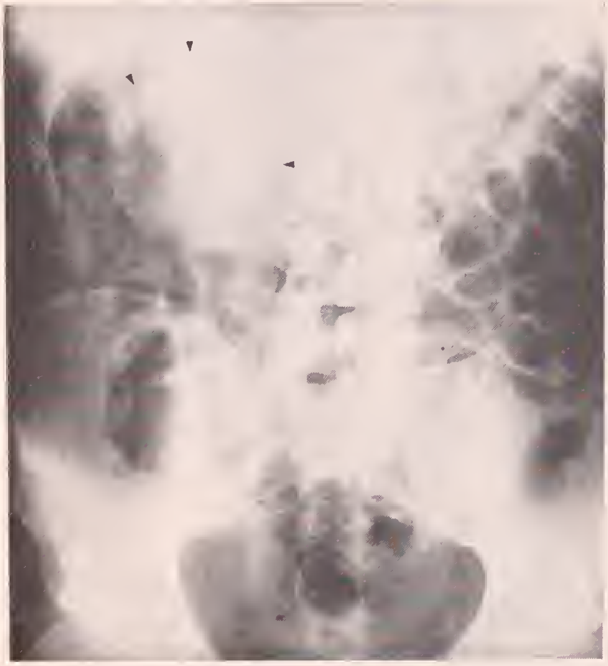
Abdominal Pain on Right Side



A 58-year-old nonalcoholic man complained of vague pains in the right side of his abdomen for several months.

Elucidation

Supine view of the abdomen reveals moderate amounts of gas in the small and large bowels indicative of nonspecific ileus. In addition, a well-circumscribed mass of soft-tissue density is noted in the right side of the abdomen with a thin rim of peripheral calcification. No other masses or calcifications are present. This may be an enlarged gallbladder, but the shape is rounded, and its location is more medial and paravertebral. A renal mass, either a neoplasm or a cyst, may show a rim of calcification, but again the medial margin of this density is toward the midline. Pseudopancreatic cysts may be encountered in any location, and long-standing pancreatic cysts may show peripheral calcification. However, there was no history of alcoholism or pancreatitis. Echinococcal cysts generally show flaking or plaque-like calcifications and not thin calcific rims. Mesenteric cysts generally do not calcify, although duplication cysts in younger-age groups may reveal calcifications. A retained sponge may show calcification although no history of previous surgery is given. The location is too high for a mucocele of the appendix.

Abdominal aortic aneurysms rarely are seen on the right side.[1,2] Abdominal aortic aneurysms can be classified into congenital, infective, mycotic, arteriosclerotic, traumatic, and dissecting. Among these, atheromatous lesions resulting in aneurysms are more common in the fifth, sixth, and seventh decades of life and in males. These aneurysms may be fusiform or saccular. Abdominal aortic aneurysms may appear on the right side in approximately 1 percent of cases.[1] About 14 percent of all abdominal aortic aneurysms may not show any calcification. However, when calcification is present only a portion of the wall generally shows calcification, and these are in the form of scattered plaques. Curvilinear calcification is encountered in about 12 percent of cases.[1]

Clinically, these patients may complain of abdominal pain, with or without a palpable or pulsatile mass. Some of these patients have an associated cardiovascular disease, and about half of them may appear with hypertension. Generally, patients having associated cardiovascular disease die of the latter, while others die of ruptured aneurysm.

Radiologic diagnosis of abdominal aortic aneurysm is not difficult. When there is calcification surrounding the aneurysm wall, a plain film of the abdomen would suffice. A lateral view of the abdomen confirms diagnosis when calcification is located just adjacent to the vertebral column. Angiography is generally unnecessary to assess the involvement of renal or iliac arteries; ultrasonography is the best diagnostic modality available.[3] It defines size in both transverse and longitudinal cross sections and also outlines the clot when it is present.

Diagnosis

Saccular abdominal aortic aneurysm

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Don't just tell them to quit...

Studies confirm that 9 out of 10 smokers know that smoking is a bad habit. And they'd like to quit. But they don't know how.

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The National Cancer Institute has developed a free "Helping Smokers Quit" kit to help you answer the "how" and to help your patients quit the smoking habit. Materials for this kit were pretested with the cooperation of the Harris County (Texas) Medical Society and M.D. Anderson Hospital and Tumor Institute in Houston, Texas.

The National Cancer Institute will provide the "Helping Smokers Quit" kit free of charge to all physicians who want to participate in this important effort. Included in the kit are guidelines for physicians, a self-test to help smoking patients determine why they smoke, pamphlets with tips on quitting, and waiting room posters to introduce the subject. Each kit contains enough materials to help 50 of your smoking patients who want to quit.

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Drug Information*

Questions and Answers

Please supply information on the use of colchicine in the treatment of cirrhosis.

Colchicine has been used for centuries for the treatment of gout.[1] Recently, there have been reports that it may be useful in the treatment of cirrhosis.[2–6]

Rojkind and Kershenobich[2] demonstrated that in carbon tetrachloride-treated rats, colchicine inhibited hepatic fibrosis and improved liver function. Rojkind et al.[3] also reported that colchicine improved the clinical course of seven severely ill cirrhotic patients. After two weeks of treatment with 1 to 2 mg. of the drug per day, all patients showed striking clinical improvement, and in five out of the six patients with hyperbilirubinemia, levels reverted to near normal.[3]

In a double-blind, randomized trial of 28 cirrhotic outpatients who completed 24 months of treatment with colchicine (1 mg. daily for 5 days per week) or placebo, all patients on colchicine were alive and without ascites or edema.[4] There were no bleeding episodes in the drug-treated patients, and they exhibited a significant decrease in gamma globulins with maintenance of normal albumin levels. Only one subject exhibited encephalopathy. In contrast, no clinical improvement was seen in the placebo group, and two patients died of complications of cirrhosis.

Kershenobich et al.[4] in a double-blind, randomized controlled trial involving 43 cirrhotic patients, administered placebo to 20 patients while the others received colchicine, 1 mg. per day for five days a week. Four patients died in the colchicine-treated group compared to eight treated with placebo; this difference was not statistically significant. Six colchicine survivors improved clinically with disappearance of ascites, edema, and decreased spleen size.[1] A decrease in liver fibrosis as shown by serial biopsies occurred in several colchicine-treated patients. The placebo survivors continued to deteriorate. In several other studies, Kershenobich et al.[5,6] demonstrated that colchicine appeared to enable patients with cirrhosis to maintain or increase their serum albumin in contrast to placebo. It was suggested that the beneficial effects of colchicine in cirrhosis may involve inhibition of collagen biosynthesis and its tissue deposition.[5]

The only side-effect of colchicine mentioned in the various studies was transient diarrhea.[2–6]

In conclusion, it appears that primarily one group of investigators demonstrated a beneficial effect of colchicine in the treatment of cirrhosis. This should be explored further; it may offer a new and useful approach to the treatment of this condition.

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Do you have any information on the intranasal use of synthetic LH-RH (luteinizing hormone-releasing hormone) as a contraceptive?

Paradoxically, chronic administration of LH-RH inhibits ovulation.[1] Synthetic analogues of LH-RH active by the intranasal route may represent a new approach to fertility control.

Kledzik et al.[2] demonstrated in rats that a synthetic analogue of LH-RH possessed definite antifertility activity. Their data suggested that the antifertility effects are mediated by a decreased luteal phase and alteration in the regulation of ovarian gonadotropin receptors.

Koyama and associates[3] showed in six women, with normal menstrual cycles, that once-daily subcutaneous administration of exogenous pharmacologic doses of LH-RH for five days during the postovulatory period induced functional luteolysis. Similarly, Lemay et al.[4] in 10 volunteer women demonstrated a luteolytic effect resulting from subcutaneous administration of LH-RH.

Lemay and associates[5] in a study involving six women indicated that intranasal administration of two doses of synthetic LH-RH induced luteolysis and regulated the occurrence of menses in normal women. Bergquist et al.[6] reported that in 27 regularly menstruating women once-daily intranasal administration of synthetic LH-RH inhibited ovulation in all but 2 of 89 treatment months. Failures were claimed because of technical problems with nasal spray bottles. Twenty-one of the 22 women had slight menstrual-like anovulatory bleeding during the three to six-month treatment period. The remaining six women were amenorrheic. Ovulatory menstrual cycles returned after discontinuing treatment.

There were no serious side-effects observed from intranasal administration of synthetic LH-RH.[5,6] Some women experienced temporary local nasal irritation. Others had symptoms of common cold during the treatment period. Short-lived headaches were reported by several women during the first week of treatment.

In conclusion, intranasal administration of synthetic analogues of LH-RH appears to represent a new and potentially important approach to fertility control.

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* The "Questions and Answers" column is compiled by the Inter-National Pharmaceutic and Therapeutic Drug Information Center (DIC) affiliated with the Arnold and Marie Schwartz College of Pharmacy and Health Sciences (formerly Brooklyn College of Pharmacy) of Long Island University, 81 DeKalb Avenue, Brooklyn, New York 11201. The purpose of the Center is to provide therapeutic and pharmaceutic information not readily available to physicians, pharmacists, and related health professionals at no charge and with minimal time involvement. The Center is staffed by specially trained pharmacists. Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College, is pharmacologist consultant. The service is available from 9:00 A.M. to 4:30 P.M., Monday through Friday, at (212)622-8989 or 330-2735.

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Recently, shampoos and other jojoba oil products have been advertised to the public. Does it have a medicinal value?

The jojoba (pronounced "hohoba") shrub (Simmondsia Chinesis), native to arid regions of southwestern North America, is being cultivated now in other countries including Israel.[1,2] Its seeds contain a liquid wax (jojoba oil) with properties similar to sperm whale oil. The product is reported to be remarkably stable against heat, ultraviolet rays, and rancidity.[3]

Jojoba oil has been used successfully as a permanent lubrication for pacemakers and a valuable medium in which penicillins and cephalosporins can be grown.[3,4] It has also been suggested as a base for the inclusion of medication in the treatment of acne.[5] In addition, several cosmetic companies now market jojoba oil and jojoba-base products. The most frequent claim made is that the products improve hair growth.[6] No scientific studies could be uncovered to back this claim.

Standard toxicity tests in laboratory animals indicated that it did not produce significant irritation to eyes of rabbits, pathologic inflammations, nor did it have acute toxicity in mice.[3] Except for patients with skin disorders who are inherently hyperallergic to cosmetic base oils, jojoba oil can be considered safe for human skin.

In conclusion, jojoba oil appears to provide a useful replacement for sperm whale oil, the importation of which is banned by the United States.[1] Its therapeutic properties have yet to be substantiated.

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Could you supply information on the use of 2-deoxy-d-glucose in the treatment of human genital herpes infection?

Genital herpes simplex infection accounts for approximately 13 percent of all venereal disease in the United States, and at present there is no effective approved treatment for it.[1] This infection may be related to cancer of the cervix and can infect the fetus at the time of birth.[2,3] Various studies suggested that 2-deoxy-d-glucose, an analogue of glucose, may be an effective agent for the treatment of this condition.[1,4,5]

Courtney, Steiner, and Benyesh-Melnick in 1973[4] demonstrated in vitro that 2-deoxy-d-glucose produced a 99 percent inhibitory effect on the maturation of an enveloped herpes simplex-1 virus. Gallaher, Levitan, and Blough,[6] utilizing cell cultures, demonstrated the ability of 2-deoxy-d-glucose to inhibit cytopathologic changes resulting from infection of herpes simplex-1 virus.

Blough and Giuntoli,[1] in a double-blind, controlled study, evaluated the effects of 2-deoxy-d-glucose on genital herpes infections in 36 females. A 0.19 percent gel of 2-deoxy-d-glucose in miconazole nitrate 2 percent cream (Monistat 7) was applied topically and intravaginally twice daily. Miconazole cream alone, or with dextrose, was used for controls. Ninety percent of the 2-deoxy-d-glucose-treated patients were asymptomatic within 4 days of treatment compared with 15 days in the control group. Duration of lesions was about 8 days in the 2-deoxy-d-glucose-treated group compared with approximately 18 days in the control treatment groups. The duration of positive viral cultures was about 4 days in the 2-deoxy-d-glucose-treated group compared with 15 days in the controls.

In conclusion, the use of 2-deoxy-d-glucose may provide an effective therapeutic agent in the treatment of genital herpes virus infections, but further studies are needed to confirm this.

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What is the proper dose of dipyridamole for antiplatelet activity?

Dipyridamole (Persantine) is a coronary vasodilator indicated for the long-term treatment of angina pectoris. It is used investigationally to decrease platelet aggregation in a number of thromboembolic diseases.[1] The drug presumably, by a poorly understood mechanism, retards the formation or growth of an arterial lesion by interfering with platelet accretion at a site of vascular injury. Few data are available to assess the clinical value of dipyridamole's antiplatelet activity.

Genton et al.,[2] in a review of use of platelet-inhibiting drugs for prevention of clinical thrombotic diseases, indicated that dipyridamole appeared ineffective in cerebrovascular disease and of no appreciable benefit in venous thromboembolism. In patients with prosthetic heart valves, dipyridamole in combination with warfarin (Coumadin), was more effective than warfarin alone in reducing the incidence of systemic embolism.

Sullivan, Harken, and Gorlin,[3] in a long-term controlled study of 163 patients who survived prosthetic cardiac-valve replacement, compared the incidence of arterial emboli in those who received 400 mg. daily of dipyridamole or placebo. Arterial emboli occurred at a significantly higher frequency in the placebo-treated group than in the dipyridamole-treated group.

Browse and Hall,[4] in a double-blind clinical trial involving 649 postsurgical patients, found that 400 mg. of dipyridamole daily reduced platelet adhesiveness but did not affect the incidence of deep vein thrombosis.

Wilding and Flute[5] reported that two patients with peripheral vascular occlusion of the arm who did not respond to anticoagulants improved when given 400 mg. of dipyridamole daily for six weeks and three months, respectively.

Dale, Myrhe, and Rootwelt[6] in a crossover design, studied the effects of daily doses of 375 mg. of dipyridamole alone, 2 Gm. of aspirin alone, and a combination of 1 Gm. of aspirin and 225 mg. of dipyridamole on platelet function of five patients with prosthetic ball valves. Dipyridamole alone did not cause significant change in any parameter of platelet function while aspirin did. Similar effects were obtained with the combination of dipyridamole and aspirin as with aspirin alone.

Renney, O'Sullivan, and Burke[7] conducted a controlled study in 160 patients utilizing a combination of dipyridamole and aspirin to prevent postoperative deep-vein thrombosis. Eighty-five patients in the treatment group received 1 Gm. of calcium aspirin and 100 mg. of dipyridamole by mouth on the evening before operation and for seven days after surgery or until discharged from the hospital. The remaining patients served as controls. The investigators found that 24 patients in the control group developed thrombosis, compared with 12 in the treatment group. This difference is significant.

Frequent side-effects associated with the high doses of dipyridamole included nausea, vomiting, vasodilation, and vascular headache.[2,4,8]

In conclusion, some studies indicated that high doses of dipyridamole (400 mg. daily) may reduce platelet adhesiveness but others do not. The clinical significance of this has not been fully determined and requires further studies.

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What is the significance of a drug interaction between ibuprofen and aspirin?

Several studies compared anti-inflammatory and analgesic properties of ibuprofen (Motrin) to aspirin, but few clinical data are available concerning their combined use. The ibuprofen package insert indicates, in animal studies, that aspirin given with nonsteroidal anti-inflammatory agents yielded a net decrease in anti-inflammatory activity with lowered blood levels of the nonaspirin drug.[1] The insert also indicates that bioavailability studies in normal adults failed to show an effect of aspirin on ibuprofen blood levels.

Grennan et al.[2] in a crossover, placebo-controlled study involving 30 patients compared effectiveness of combined ibuprofen-aspirin regimens to each agent administered singly. The combination of 2.4 Gm. per day of aspirin and 800 mg. per day of ibuprofen provided no benefit over either agent administered alone. When 3.6 Gm. per day of aspirin were combined with 1,600 mg. per day of ibuprofen, a very weak additive effect was noted for control of pain, and in two other standard tests utilized to judge clinical effectiveness of anti-inflammatory drugs. Salicylate levels were essentially unaffected by addition of ibuprofen, but there was significant reduction (56 to 59 percent) of ibuprofen serum levels when aspirin was added to the regimen.

Rubin et al.[3] showed a significant decrease in plasma fenoprofen (Nalfon) levels, a drug chemically and pharmacologically related to ibuprofen, when given together with aspirin. This phenomenon was observed whether fenoprofen was administered orally or by intravenous injection.

In conclusion, studies in animals and human beings indicated that a potential exists for a significant decrease in serum levels of nonsteroid anti-inflammatory agents, such as ibuprofen, when administered concomitantly with aspirin. Combined use of these drugs with aspirin should probably be avoided.

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Do you have information concerning a new antianginal agent—nifedipine?

A new drug application for nifedipine (Procardia), an antianginal drug by Pfizer, has been filed with FDA. Its chemical structure and mechanism of action is unlike presently available agents. The drug exerts a vasodilating effect on coronary and peripheral resistance blood vessels presumably by inhibiting cellular uptake of ionic calcium in vascular smooth muscles. In addition, it decreases cardiac workload and oxygen demand. Nifedipine acts rapidly after oral and sublingual administration and has been utilized to treat various types of angina, hypertension, and acute left ventricular failure.[1,2]

Goldberg et al.[3] utilized nifedipine in 12 patients with Prinzmetal's variant angina. Eleven of 12 patients had initial relief of symptoms, and 7 of the 11 had long-term relief. Withdrawal of the drug led to recurrence of angina in some patients. The authors concluded nifedipine may have a significant role in therapy of angina caused by coronary spasm.

Hernandez-Pieretti et al.[4] utilized nifedipine in 11 patients with anginal syndrome secondary to ischemic heart disease. Exercise electrocardiograms and workload performance were determined before and after administration of nifedipine. The authors found that there was significant reduction in number of angina attacks and nitroglycerin tablets concomitantly consumed by patients during the drug period. There was also significant decrease in S-T segment depression and significant improvement in workload performance.

Guazzi et al.[5] treated 26 patients with severe primary hypertension with nifedipine. The investigators found the agent induced a prompt and large pressure reduction. Nifedipine administered sublingually to three patients with hypertensive encephalopathy and acute left ventricular failure resulted in significant reduction of systemic arterial and pulmonary arterial pressures.

Polese et al.[6] utilized nifedipine sublingually in 24 patients with acute pulmonary edema, and favorable clinical and circulatory responses resulted. The drug apparently reduced preload and afterload and, possibly, improved myocardial contractility.

Ekelund and Oro[7] conducted a double-blind study to evaluate antianginal efficacy of nifedipine alone and in combination with beta-blockers in 21 patients with stable angina pectoris. The authors found the combination resulted in increased exercise tolerances compared to nifedipine alone.

Side-effects associated with nifedipine included flushing, dizziness, headaches, and palpitations. It sometimes precipitated angina 30 minutes after a dose.[1,2]

In conclusion, nifedipine has been used very successfully in various types of angina alone or combination with nitroglycerin and/or beta-blockers. It may also be useful in treating patients with severe primary hypertension and acute pulmonary edema.

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Do you have information on DMSO (dimethyl sulfoxide) to treat arthritis?

For many years DMSO has been utilized as an industrial solvent and was found to possess a variety of pharmacologic effects when applied topically.[1] At present DMSO (Rimso-50) is approved only for bladder instillation for symptomatic relief of interstitial cystitis, but its use in the treatment of arthritis and muscle spasms has been proposed.[2–5]

A multicenter, single-blind trial involving 274 patients with rheumatoid arthritis compared DMSO therapy to placebo.[4] The drug or placebo was applied topically to involved joints twice daily for four weeks. Results indicated DMSO relieved joint pain and increased range of motion to a significantly greater extent than placebo. However, it did not significantly decrease swelling and local heat.

Brown[5] in a double-blind, controlled investigation that involved 75 subjects compared DMSO, placebo gel, and standard therapy for the treatment of acute injuries and inflammation. Standard therapy varied and included corticosteroids, indomethacin (Indocin), phenylbutazone (Butazolidin), rest, diathermy, and physical therapy. DMSO provided more rapid and significant relief of pain and tenderness than standard therapy or placebo gel. In DMSO-treated patients with acute strain, relief was for greater periods of time, and there was significantly greater improvement in active and passive motion compared with other modalities. In the treatment of bursitis and tendinitis, results of standard treatment and DMSO were comparable.

Side-effects reported to DMSO included skin irritation and a garlic-like odor attributable to a metabolite which is eliminated through the breath and skin.[3]

In conclusion, DMSO is currently approved for bladder irrigation in the treatment of interstitial cystitis but may have some value as a topical antiarthritic agent.

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Do you have information on ritodrine for inhibiting premature labor?

Ritodrine, under investigation by Merrill-National Co., stimulates beta$_2$ adrenergic receptors. It causes dose-dependent inhibition of contractions of preterm and postpartum human uterus. In recent clinical studies, it decreased incidence of preterm labor in 70 to 80 percent of patients compared to 40 to 50 percent of women treated with bedrest and sedation.[1-4]

Bieniarz et al.[5] reported ritodrine administered intravenously successfully inhibited preterm labor in four multifetal pregnancies. Another patient, misdiagnosed as exhibiting false labor and not treated, lost three of four premature babies. The authors recommended initial ritodrine treatment by intravenous route followed by oral route because of the tendency of recurrences of premature labor.

Spellacy et al.[6] conducted a randomized, placebo-controlled study involving treatment of premature labor with ritodrine. Twenty-nine women of similar age, parity, weight, gestational age, and cervical changes were included. Drug and placebo were first administered by intravenous infusion, and oral treatment was begun 24 hours later. Although the drug produced a beneficial effect in stopping premature labor, there was no significant increase in birth weight or infant survival for ritodrine-treated patients.

Humphrey et al.[7] in a double-blind, placebo-controlled trial studied effects of intravenously administered ritodrine on fetal respiratory acidosis (associated with fetal asphyxiation), occurring during the second stage of labor. The drug exerted beneficial effects presumably by increasing fetal blood flow through placenta, resulting in greater gas exchange, and by decreasing uterine contractions and tone.

Brettes, Renaud, and Gandar[8] studied effects of ritodrine and placebo on uterine blood flow and maternal cardiovascular system during the third trimester of pregnancy. Data suggested ritodrine increased uteroplacental blood flow exerting a beneficial effect in treatment of pathologically complicated pregnancies.

Minor side-effects associated with ritodrine therapy included palpitation, tachycardia, flushing, sweating, tremors, nausea, and vomiting.[5–8] No serious adverse side-effects occurred.

In conclusion, ritodrine appears to inhibit preterm labor effectively without producing serious side-effects.

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Nursing homes meet vital community need

Nursing homes for years have had a bad press in the United States. But not all nursing homes are bad. Many are quite good, meeting a highly important personal and community need.

Philip Sloane, M.D., of the Department of Family Medicine, University of North Carolina at Chapel Hill, and Lisa Gwyther, medical social worker with the University's Center for the Study of Aging and Human Development, offer an essay on nursing homes in the October 17 Journal of the American Medical Association.

The mere mention of a nursing home is often enough to arouse feelings of terror, frustration, grief, or guilt among elderly patients and their families, Dr. Sloane and Ms. Gwyther point out.

There are realities regarding nursing homes. They provide largely custodial care, reflecting the progressive nature of many chronic diseases and the inability of modern medicine to reverse most illnesses associated with aging, they say. They have been plagued by profiteering and by difficulties in recruiting and keeping quality personnel. Frequently they are impersonal and regimented, especially when compared with the family home.

However, there are many favorable aspects of nursing homes. For those elderly who cannot find it elsewhere, they provide a measure of security by guaranteeing that basic needs will be met. For the isolated elderly, they can offer new horizons of social activities, a meaningful role in a community, intellectual stimulation, and a link with a compatible religious or ethnic group

For families that can no longer provide physical care for a disabled love one, nursing homes provide that service.

Actually, most older people still remain in their own homes. Only 5 percent of those over 65 are in nursing homes at any given time. There is greater demand for nursing homes today than in past generations because more people are living longer.

The three-and-four generation family living under one roof never did exist to the extent commonly believed, Dr. Sloane and Ms. Gwyther say. Custodial care institutions have existed for centuries. Most services rendered to elderly persons are provided by families, and nursing homes are disproportionately occupied by the widowed, the unmarried and the childless.

Dr. Sloane and Ms. Gwyther conclude with a list of suggestions on how to pick a nursing home. First, get professional counsel to assess the situation, establish a goal and a plan for care. Second, make a financial assessment of resources and potential costs. Third, look for a nursing home close to home of family and friends. Talk with friends, trusted physicians and nurses, employees of health care facilities, and community consumer groups.

Make a list of prospects and begin visiting. Take the prospective patient along, if he or she can travel. Narrow the choices down to two or three, then visit each of them several times, unannounced, at various times of the day. Stay for at least one meal. Talk to residents, visitors, staff.

Finally, hold a family conference. If the move is to be permanent, don't deny it. Have the patient direct the move as much as possible. This might take longer than having relatives make the arrangements, but is desirable in the long run.

Electrocardiograms of the Month

Montefiore Hospital and Medical Center
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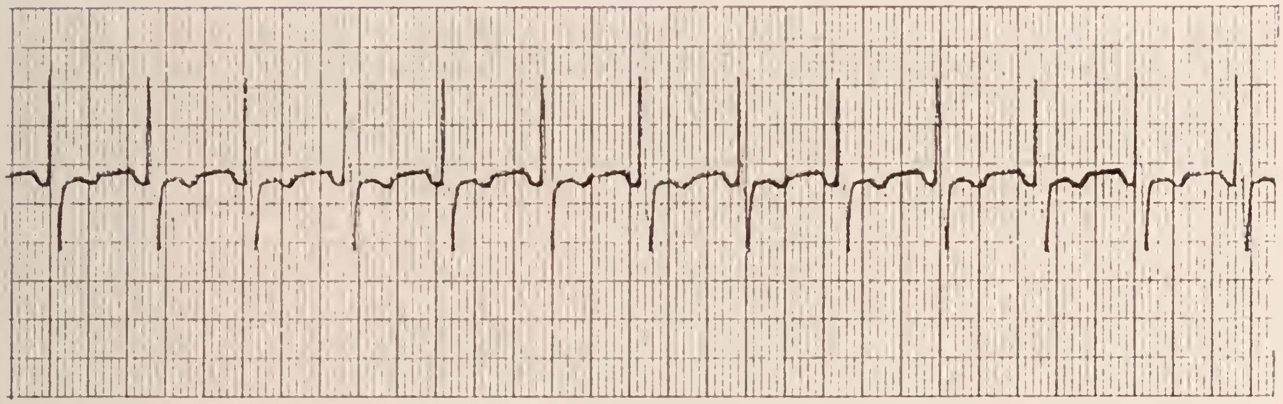
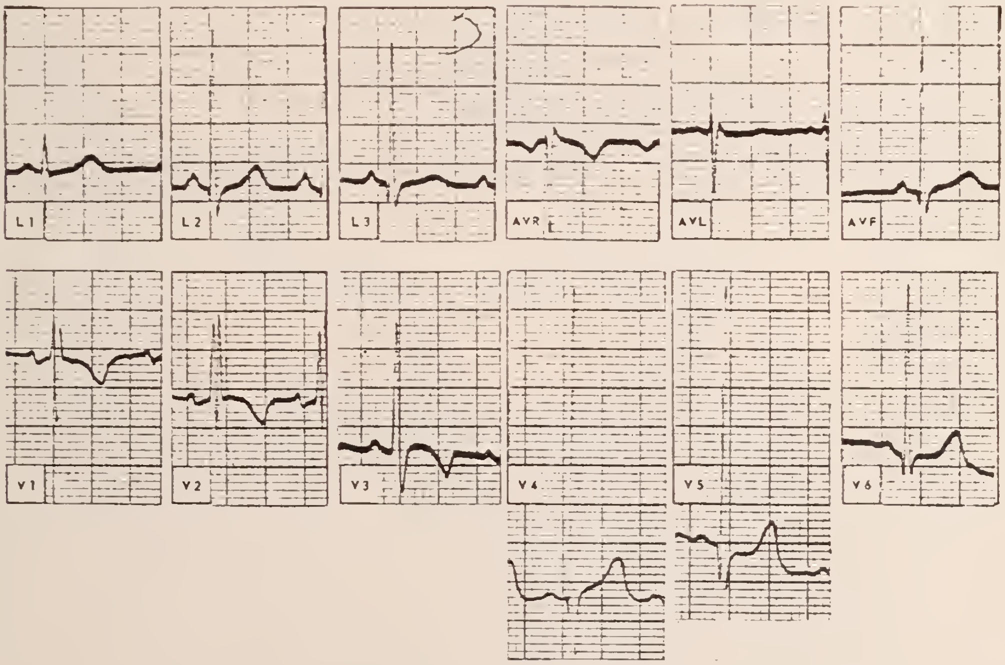


QUESTION 307. Lead II, what is the rhythm?



QUESTION 308. This patient is six-years of age. What is the diagnosis?

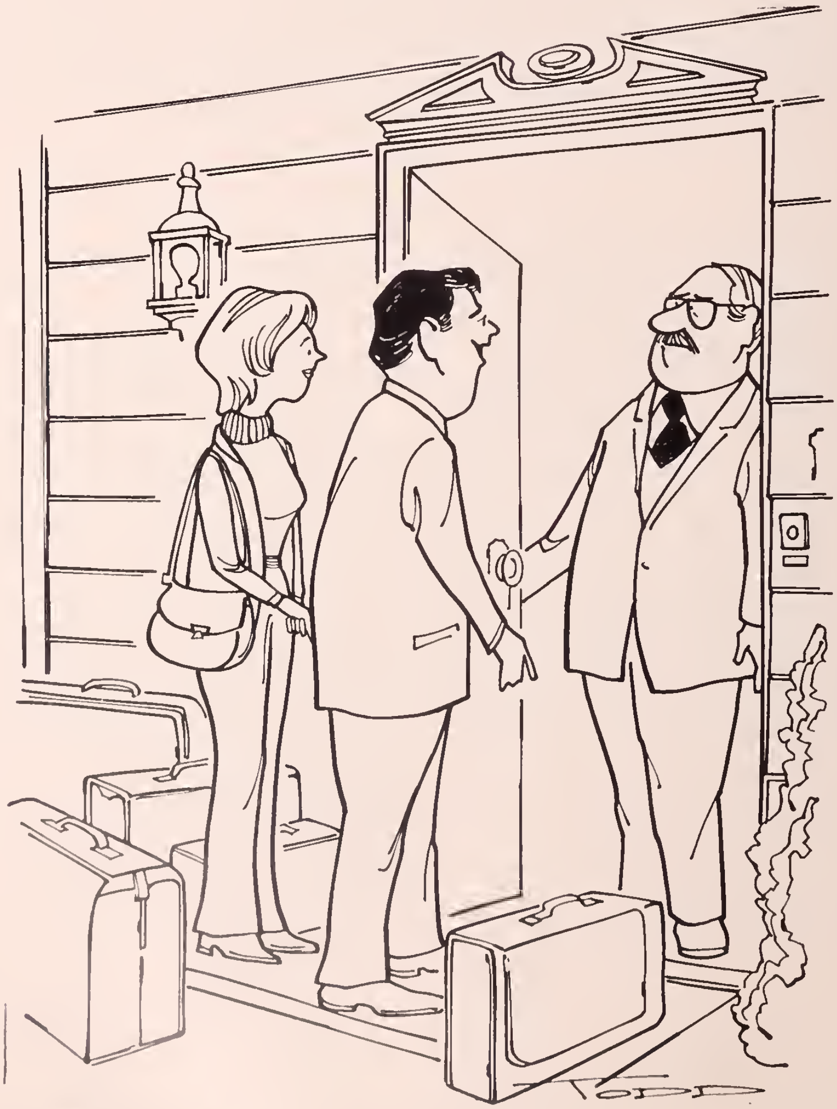
Electro-
cardiograms
of the Month

ELUCIDATION

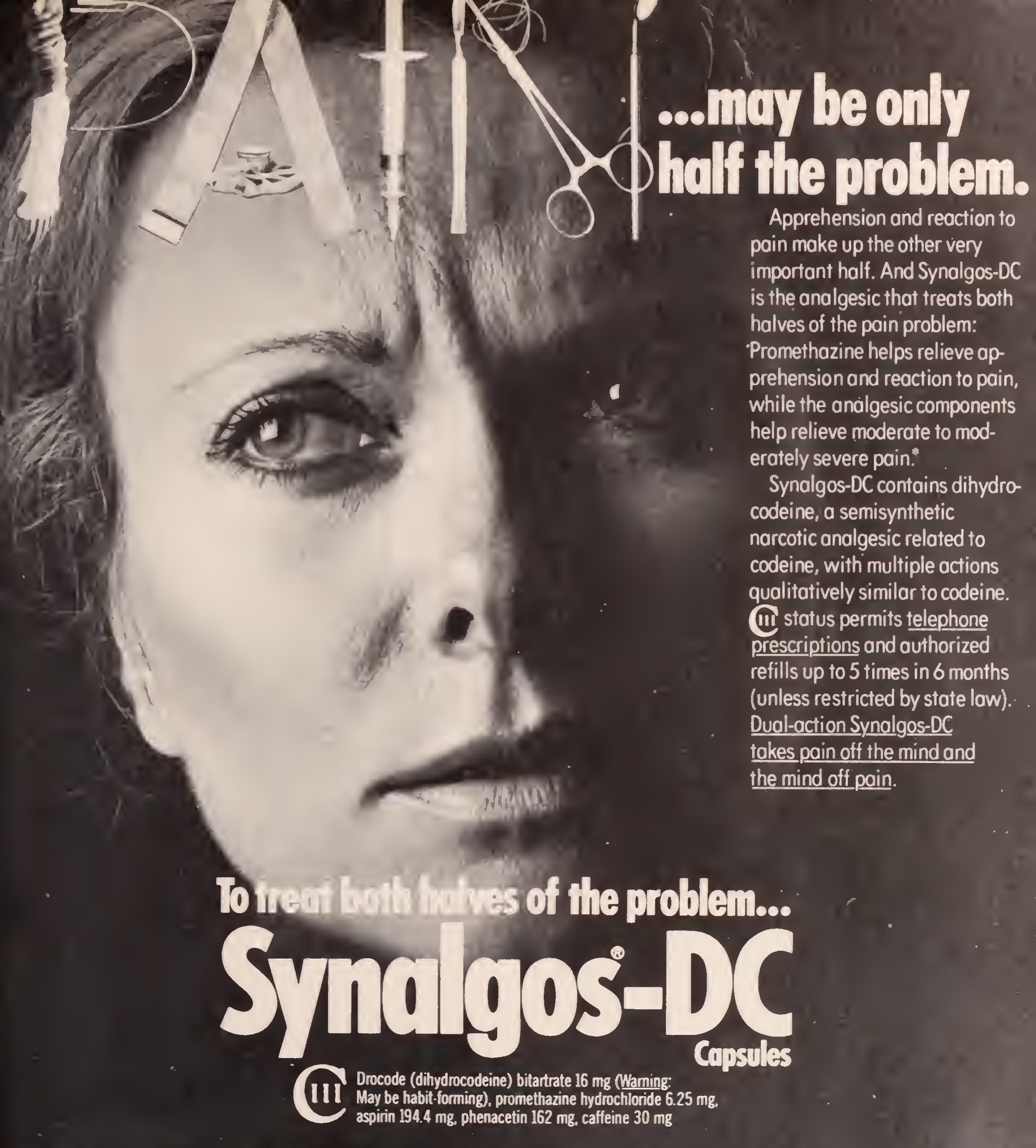
Question 307. The QRS is normal in configuration. The ventricular rate is regular at a rate of 115 per minute. There is a downward deflection preceding the QRS complexes. A similar wave is present between the QRS complexes and roughly resembles the T wave. However, this wave appears in close proximity to the preceding QRS and is shallow; it represents atrial activity. The wave before the QRS is also due to atrial activity. The interval between these atrial waves is regular. The rate is 230 per minute with 2:1 atrioventricular block.

The atrial rate lies between that of flutter and paroxysmal atrial tachycardia. Paroxysmal atrial tachycardia rarely is this fast; 2:1 atrioventricular block is more commonly seen in atrial flutter.

Question 308. The rhythm is regular sinus. The QRS duration is 0.09 second. In V_1 there is an rSR′ pattern, and the T wave is inverted in V_1 to V_3. There is high voltage in the precordial leads. This is a normal electrocardiogram for a six-year-old. The rSR′ in V_1 resembles the incomplete right bundle branch block pattern. This pattern is seen in children without heart disease and may persist into early adult life. The T wave inversions in the right-side V leads are also a normal variant in children (juvenile pattern). The high voltage in the precordial leads is normal in children.



"You were dead right, sir, I'm not able to support a wife while serving my internship."



...may be only half the problem.

Apprehension and reaction to pain make up the other very important half. And Synalgos-DC is the analgesic that treats both halves of the pain problem: Promethazine helps relieve apprehension and reaction to pain, while the analgesic components help relieve moderate to moderately severe pain.*

Synalgos-DC contains dihydrocodeine, a semisynthetic narcotic analgesic related to codeine, with multiple actions qualitatively similar to codeine. Ⓒⅲ status permits telephone prescriptions and authorized refills up to 5 times in 6 months (unless restricted by state law). Dual-action Synalgos-DC takes pain off the mind and the mind off pain.

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***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective for the relief of moderate to moderately severe pain in those situations where the physician wishes to add a mild sedative effect.

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Hypersensitivity to dihydrocodeine, promethazine, aspirin, phenacetin.

WARNINGS: Salicylates should be used with extreme caution in the presence of peptic ulcer or coagulation abnormalities.

Drug Dependence: Dihydrocodeine can produce drug dependence of the codeine type and therefore has the potential of being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of dihydrocodeine, and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral narcotic-containing medications.

Like other narcotic-containing medications, dihydrocodeine is subject to the provisions of the Federal Controlled Substances Act.

Usage in Ambulatory Patients: Dihydrocodeine and promethazine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using Synalgos-DC should be cautioned accordingly.

Interactions with Other Central Nervous System Depressants: Patients receiving other narcotic analgesics, general anesthetics, other phenothiazines, tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Synalgos-DC may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Patients who have demonstrated a hypersensitivity reaction (eg, blood dyscrasia, jaundice) with a phenothiazine should not be re-exposed to any phenothiazine, including Synalgos-DC, unless in the judgment of the physician the potential benefits of the treatment outweigh the possible hazards.

Usage in Pregnancy: Reproduction studies have not been performed in animals. There is no adequate information on whether this drug may affect fertility in human males and females or has a teratogenic potential or other adverse effect on the fetus.

Usage in Children: Since there is no experience in children who have received this drug, safety and efficacy in children have not been established.

PRECAUTIONS: Phenacetin has been reported to damage kidneys when taken in large amounts for a long time.

Promethazine should be administered cautiously to patients with cardiovascular or liver disease. Synalgos-DC should be given with caution to certain patients such as the elderly or debilitated, and those with hypothyroidism, Addison's disease, and prostatic hypertrophy and urethral stricture.

ADVERSE REACTIONS: The most frequently observed reactions include light-headedness, dizziness, drowsiness, sedation, nausea, vomiting, constipation, pruritus, skin reactions, and rarely, hypotension.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. Synalgos-DC is given orally. The usual adult dose is two capsules every 4 hours as needed for pain.

DRUG INTERACTIONS: The CNS depressant effects of Synalgos-DC may be additive with that of other CNS depressants.

See Warnings.

Aspirin may enhance the effects of anticoagulants and inhibit the uricosuric effects of uricosuric agents.

Consult complete product information before prescribing.

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A series of practical articles
by and for physicians concerned with
care of school-age children

School Health

NORMAN B. SCHELL, M.D., M.P.H., Editor

New Immunization Regulations

RICHARD ROTHENBERG, M.D., M.P.H.
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On July 5, 1979, Gov. Hugh Carey signed into law amendments to sections 680 and 2164 of the Public Health Law. These amendments had two major effects: first, an annual survey of the immunization status of school children was mandated beginning with the 1979–1980 school year; second, school immunization requirements which previously had been applicable only to school enterers were extended, as of July 1, 1980, to include all children attending school.

The immunization status survey for 1979–1980 has been completed and final results will be published soon. The effort to review, update, and document the immunization histories of nearly 3 million children was herculean. Much of the credit for accomplishing this task must go to the thousands of New York State physicians and their office staffs who provided updated records for hundreds of thousands of New York's school children.

Extending immunization requirements to all children attending school necessitated a revision of the regulations which define and particularize the provisions of section 2164 of the Public Health Law. These regulations are contained in Part 66, Subchapter F, Chapter II, Title 10 (Health) of the Official Compilation of Codes, Rules, and Regulations of the State of New York. On June 16, 1980, Commissioner David Axelrod, M.D., promulgated a revision to Part 66 which took effect on July 9, 1980, on publication in the New York State Register. This revision is reprinted in its entirety.

PART 66. Immunization against Poliomyelitis, Diphtheria, Measles, Mumps, and Rubella

(Statutory Authority: Public Health Law, section 2164)

Section	
66.1	Definitions
66.2	Certificate of immunization
66.3	Requirements for school admission
66.4	Requirements for continued school attendance
66.5	Immunization records from previous schools
66.6	Existing school immunization records
66.7	Waiver of rubella requirements
66.8	Immunization of children excluded from school
66.9	Obligation of the local health authority
66.10	Exclusion of susceptibles in the event of an outbreak of disease

66.1 Definitions. As used in this part, unless the context otherwise requires:

A. "School" means and includes a public, private, or parochial child caring center, day care agency providing day care of children, nursery school as defined in this section, kindergarten, and an elementary, intermediate or secondary school building.

B. "Child" means and includes any person between the age of two months and 18 years (until the nineteenth birthday).

C. "Day Care of Children" means:
   1. Outside the city of New York, care provided children away from their own homes, for less than 24 hours a day, in a family home or day care center which is operated for such purpose, for compensation or otherwise, for at least three hours a day for the accommodation of three or more children.
   2. In the city of New York, any service which during all or part of the day regularly gives care to six or more children, not of common parentage, who are under six years of age, whether or not the care is given for compensation, and whether or not it has a stated education purpose. The total number of children receiving care shall be counted, including children or foster children of the owner or person in charge, in determining the applicability of this definition. The term shall not, however, include a service which gives care to children for five hours a week or less or a service which operates for one month a year or less.

D. "Nursery school" means a place, other than one providing day care of children as herein defined in this section in which organized instruction is provided for children prior to entering kindergarten.

E. "Immunization against a given disease" means inoculation with approved licensed products administered in the amounts and manner described below:

1. Three or more doses of diphtheria toxoid;
2. either
   a. Three or more doses of trivalent oral poliovirus vaccine (TOPV), or
   b. Four or more doses of inactivated poliomyelitis vaccine (IPV) administered after 1968 (1969 or later);
3. A single dose of live measles virus vaccine administered after the age of 12 months;
4. A single dose of live rubella virus vaccine administered after the age of 12 months;
5. A single dose of live mumps virus vaccine administered after the age of 12 months;

66.2 Certificate of immunization. The certificate of immunization provided for in subdivision five of section 2164 of the Public Health Law shall be prepared by the physician or other authorized person who administers the immunizing agents and shall specify the products administered and the dates of administration. It may also show physician verified history of disease and/or laboratory evidence of immunity.

66.3 Requirements for school admission. A principal or person in charge of a school shall not permit a child to be admitted to such school unless a person in parental relation to the child has furnished the school with one of the following:

A. A certificate of immunization as described in section 66.2 of this part which shows that the child

1. Has received three or more doses of diphtheria toxoid, and
2. Has received either
   a. Three or more doses of trivalent oral poliovirus vaccine (TOPV), or
   b. Four or more doses of inactivated poliomyelitis vaccine (IPV) administered after 1968, and
3. Either
   a. Has received a single dose of live measles virus vaccine administered after the age of 12 months, or
   b. Has been diagnosed by a physician as having had measles disease, and
4. Either
   a. Has received a single dose of live rubella virus vaccine administered after the age of 12 months, or
   b. Has demonstrated serologic evidence of rubella antibodies, and
5. Either
   a. Has received a single dose of live mumps virus vaccine administered after the age of 12 months, or
   b. Has been diagnosed by a physician as having had mumps disease.

B. A statement from a physician or health facility which specifies the products administered and the dates of administration and shows that the child

1. Has received at least one dose of diphtheria toxoid, and
2. Has received at least one dose of either trivalent oral poliovirus vaccine (TOPV) or inactivated poliomyelitis vaccine (IPV) administered after 1968, and
3. Has complied with the requirements in subdivision (A) of this section for measles, rubella, and mumps, and
4. Has appointments to return to the physician or health facility for the remainder of the immunizations specified in subdivision (A) of this section.

C. A certificate from a physician licensed to practice medicine in this State that one or more of the required immunizations may be detrimental to the child's health. This certificate must specify which immunizations may be detrimental.

D. A written and signed statement from the person in parental relation to the child that such person is a bona fide member of a specified recognized religious organization whose teachings are contrary to immunization. The principal or person in charge of the school may require supporting documents from the religious organization specified.

66.4 Requirements for continued school attendance.

A. After the thirtieth day of June, 1980, a principal or person in charge of a school shall not permit a child to continue to attend such a school for more than 14 days unless a person in parental relation to the child has furnished the school with one of the documents specified in section 66.3 of this part with the exception that

B. The requirements for mumps immunization specified in subdivison (A) of section 66.3 will be waived until July 1, 1981.

66.5 Immunization records from previous schools. An immunization record forwarded from the child's previous school which contains all of the information specified in subdivision (A) of section 66.3 of this part may be accepted by the principal or person in charge of the school in lieu of a certificate of immunization.

66.6 Existing school immunization records. The requirements outlined in sections 66.3 (A) and 66.4 (A) of this part regarding documentation of immunity against diphtheria, poliomyelitis, measles, and rubella may be waived until July 1, 1981, for children who had an immunization record on file in the school before July 1, 1980, which showed previously acceptable evidence of immunity to those four diseases.

66.7 Waiver of rubella requirements. Documentation of rubella immunity as specified in sections 66.3 (A) and 66.4 (A) of this part is waived for female students who have reached the age of eleven years.

66.8 Immunization for children excluded from school. Whenever a child has been refused admission to, or continued attendance at, a school for lack of acceptable evidence of immunization as specified in subdivisions (A) and (B) of section 66.3 of this part, the principal or person in charge of the school shall

A. Notify the person in parental relation to the child of his/her responsibility to have the child immunized and of the public resources available for doing so, and
B. Provide the person in parental relation to the child with the appropriate vaccine information forms supplied by the New York State Department of Health, and
C. Notify the local health authority of the name and address of the excluded child and of the immunization or immunizations which the child lacks, and
D. Provide, with the cooperation of the local health authority, for a time and place at which the required immunization or immunizations may be administered.

66.9 Obligation of the local health authority. On being notified by a principal or person in charge of a school of the exclusion from school of one or more children for lack of acceptable evidence of immunization, it shall be the responsibility of the local health authority to either

A. Cooperate with the school authorities to provide a time and place within two weeks of the exclusion at which the appropriate immunization or immunizations may be administered by a health officer in the public employ or by a school physician or nurse, or
B. Notify the commissioner that the required immunizations will not be administered either by the local health authority or school and that the cost of doing so by the agents of the commissioner may be recovered from the amount of state aid to which the local health authority would otherwise be entitled.

66.10 Exclusion of susceptibles in the event of an outbreak of disease. In the event of an outbreak of diphtheria, poliomyelitis, measles, rubella, or mumps in a school, the commissioner may order the appropriate school officials to exclude from attendance all students without documentation of immunity as specified in section 66.3 (A) of this part until the danger of disease transmission has passed or until the documentation specified in section 66.3 (A) has been submitted.

Dust standards in quarries fail to protect workers

Vermont quarry workers suffered lung damage from silica dust in the air, despite controls that were thought to reduce the dust content to a safe level, says a report in the October 24/31 Journal of the American Medical Association.

John E. Craighead, M.D., of the University of Vermont College of Medicine, Burlington, studied autopsy records of a number of miners, and found that many had lung damage that had not shown up on chest x-rays.

Silicosis is the disease caused by exposure to dust in the granite quarries. It involves severe damage to the lungs.

Contemporary dust standards in the work place are based on the premise that significant disease does not exist in the absence of lesions that show up on the chest x-ray seldom if ever occurs when the dust particle levels are below 10 million per cubic feet. This level was set as the maximum allowed in the quarries in 1937. In 1955, to insure added safety, the allowable level was dropped to 5 million particles per cubic foot.

Prevalence of silicosis in chest x-ray surveys among quarry workers has decreased dramatically during the past several decades. But the unseen damage was still being done, he says.

Autopsy examination of the lungs of 15 workers who had been in the quarries only since the dust standards were first introduced revealed that all of them had lung lesions. Deaths were attributed to a variety of causes. Six were from lung cancer.

Says Dr. Craighead:

"In view of these findings, the contemporary dust standard of 5 million per cubic foot recommended by the National Institute of Occupational Safety and Health can be evaluated definitively only by long-term, routine autopsy surveys. The ultimate efficacy of the established threshold values for the protection of workers could then be assessed."

Geriatrics

A series of articles dealing with problems in aging

IRVING S. WRIGHT M.D., Editor

Office Cardiology. Brandenberg, R. O., M.D., and Brest, A. Eds.: Cardiovascular Clinic, Philadelphia, F. A. Davis Company, 1980, 308 pp., 103 illustrations.

Advances in the Management of Cardiovascular Diseases. Foley, Wm. T., M.D., Ed.: Yearbook Medical Publishers, Inc., Chicago, 1980, Vol. 1, 493 pp., illustrated.

The care of the elderly is becoming the most urgent health problem of today and the foreseeable future, and since a major proportion of that care requires knowledge of cardiovascular diseases and their treatment, it is appropriate to call attention to new and helpful books dealing with this field of medicine. Two interesting and instructive books have recently appeared.

While many of the exciting developments in cardiovascular medicine have been surgical or involve technical equipment and skills necessitating hospital services, the importance of office management of these patients has not diminished. Key decisions involving the first steps to more formidable procedures are usually made in the physician's office, and the follow-up that makes evaluation of surgical and other forms of therapy possible most often rests with the physician who sees patients from early in illness on to the terminal event or a favorable outcome. This aspect of primary care has not received the emphasis it deserves and has been sometimes belittled by some engaged in more heroic procedures. The book edited by Brandenberg and Brest, strengthened by a cohort of contributors, is an important contribution. It will help the primary physician update his approach toward evaluation and treatment of murmurs, arrhythmias, failure, angina, hypertension, cardiomyopathies, and peripheral vascular disease. It also summarizes the values and the limitations of new technical advances including echocardiography, scans, catheterization, arteriography, exercise testing, and pacemakers. Strength would be added by a chapter on modern history taking involving new fields such as genetics, medication interactions, sensitivities, drug usage, and exposure to toxic industrial hazards. It is a useful desk reference and is recommended.

Dr. Foley in his book on managing cardiovascular diseases has brought together ideas of many world leaders and innovators in cardiovascular medicine and surgery. They include DeBakey (United States), Barnard (South Africa), Gruntzig (Switzerland), Abe (Japan), Dotter (United States), Bauer (Australia/New Zealand), W. Barker (United States), Pickering and Kakkar (England), Lequime (Belgium), Vazifdar (India), Rob (United States), Soldati (Argentina), Urdenetta (Columbia), Escudero (Mexico), and many others, a total of 43. Foley used an interesting approach. He obtained original chapters from some and also conducted personal interviews with many of these distinguished medical scientists. Each chapter is headed by a picture of the author. Thus we have an illustrated, personalized history of the most recent advances presented in the words of the innovators, investigators, or teachers themselves. This is a book with long-term historic interest, containing a wealth of information about how these pioneers think, why they did what they did, and why physicians today should follow them. If some of them appear enthusiastic about their innovations it is understandable. This explains why they are explorers into new fields. The many practical descriptions are thoroughly updated with helpful tables and illustrations. Since practically every chapter deals with cardiovascular and/or thromboembolic problems as they occur in the middle and late years of life, this volume should be of interest to all involved in geriatric medicine. The following subjects are included: Atherosclerosis, varicose veins, hypertension, ischemic heart disease, peripheral and coronary by-pass surgery, heart transplants, percutaneous transluminal angioplasty, cerebrovascular insufficiency, Doppler ultrasonography, anticoagulation, antiplatelet drugs, and the epidemiology of cardiovascular diseases as they occur in many countries. As with all multi-authored books, their chapters are uneven in quality. It is simply a fact of life that all writers are not equally critical, trained, or facile in their expressions. This the editor must struggle with, and the reader accept. There is great merit in serving the reader with a refreshing variety of thought and information, criteria met by the two volumes discussed.

IRVING S. WRIGHT, M.D.

Correlation Conferences in Radiology and Pathology

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Nasopharyngeal Mass and Unilateral Opacification of Maxillary Antrum

Case history

John P. O'Callaghan, M.B., F.R.C.R.*: An 18-year-old male was referred to the Otolaryngological Department at the Upstate Medical Center, Syracuse, New York, complaining of progressive left nasal obstruction and increased secretion for a period of 18 months. There was no complaint of pain, epistaxis, otalgia, deafness, or paranasal sinus pain.

On examination the nose revealed a swollen left inferior turbinate with almost complete occlusion of the left nares. No nasal polypi were visualized. Findings at indirect nasopharyngoscopy will be described later. Examination of the ears was unremarkable. Indirect laryngoscopy revealed no laryngeal abnormality. No adenopathy was detected

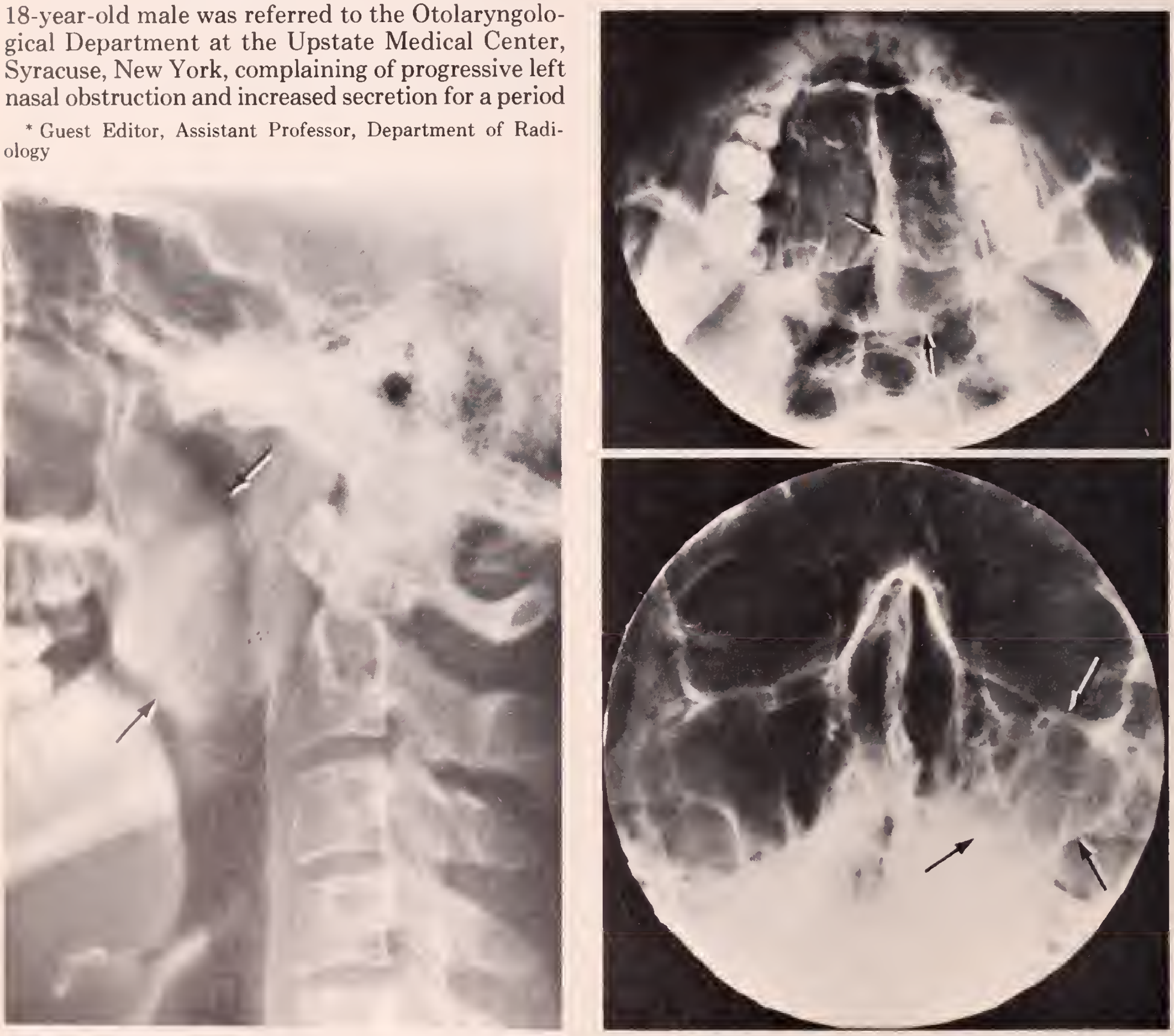

FIGURE 1. Radiographs. (A) Lateral soft-tissue film of neck showing ovoid nasopharyngeal mass (arrows) arising anteriorly. (B) Submentovertical view showing mass in left side of nasopharynx (arrows). No apparent reactive sclerosis or bone destruction. (C) Water's view showing almost total opacification of left maxillary sinus (arrows). Note thin nonopacified crescent just below upper margin of sinus.

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* Guest Editor, Assistant Professor, Department of Radiology

in the neck. A differential white blood cell count revealed an eosinophilia of 7 percent.

Paranasal sinus radiographs and lateral soft-tissue film of the neck were then obtained.

Chester R. Jarmolowski, M.D.*: A lateral soft-tissue film of the neck demonstrated a smooth, noncalcified, soft-tissue mass within the nasopharynx, narrowing the air column and projecting downward into the oropharynx (Fig. 1A). The anterior margin of the mass was not clearly identifiable. Bony structures were normal without destruction or sclerosis. Submentovertical view of the skull (Fig. 1B) showed a soft tissue mass in the pharynx with a clearly marginated right edge and poorly defined site of origin. A Water's view demonstrated almost total opacification of the maxillary antrum (Fig. 1C).

The differential diagnosis included both benign and malignant nasopharyngeal tumors. Malignant tumors of nasopharynx such as primary carcinoma, multiple myeloma, or lymphoma tend to occur in an older population than this patient represents and are, therefore, somewhat unlikely. They are usually associated with bony destructive changes or reactive sclerosis, neither of which is present in this case. Benign tumors are more uncommon. Of these, the juvenile angiofibroma is probably the most frequent and most distinctive in its appearance. Although not a feature of this case, anterior bowing of the posterior wall of the maxillary antrum is characteristic of these tumors. Opacification of the maxillary antrum in angiofibroma is distinctly unusual, and a history of epistaxis is almost always present. Other lesions that occur in this area are, antrochoanal polyps, chordomas, neurofibromas, and angiomas. They do not have characteristic features that allow for a definite radiographic differentiation.

In this young man, the absence of epistaxis makes an angiofibroma unlikely. Opacification of the maxillary sinus, the apparent continuity between the sinus density and the left pharyngeal mass, and the associated eosinophilia make an inflammatory process most likely.

Dr. Jamolowski's diagnosis

Left-sided antrochoanal polyp

Dr. O'Callaghan: At indirect nasopharyngoscopy a large polypoid mass was seen completely obstructing the left choana and partially obstructing the right. The patient was taken to the operating room where a Caldwell-Luc procedure and total polypectomy were performed.

Pathologic discussion

Bedros Markarian, M.D.: The surgical specimen consisted of many pale tan-to-pink-colored, firm fragments of tissue, the largest piece measuring 6 by 3 by 1.5 cm. Microscopic examination revealed polypoid lesions lined by pseudostratified, ciliated, columnar respiratory epithelium. There was marked edema, capillary vascular telangiectasis, and a predominant plasma cell with sparse eosinophil infiltrate in the underlying connective tissue (Fig. 2). This represented the typical histologic appearance of polyps which occur in the nose and paranasal sinuses. Most of these are due to allergy, although the predominant plasma cell infiltrate suggests this to be a nonallergic type of polyp. Polyps arising in the maxillary sinus are usually unilateral and occur in children and young adults. Because they tend to extend through the sinus ostium and grow backward to involve the choana they have been named choanal or antrochoanal polyps.

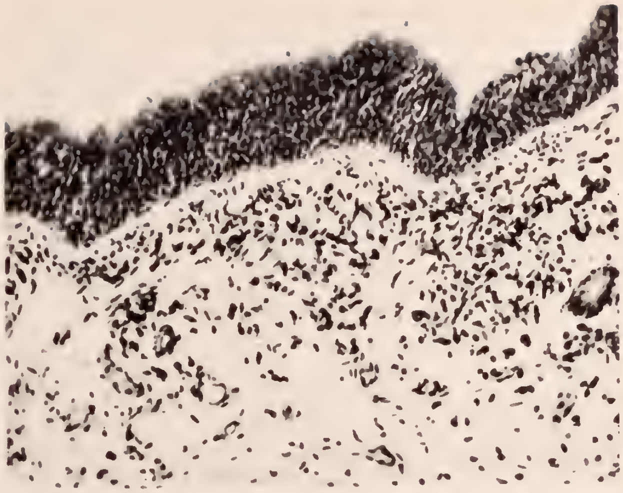

FIGURE 2. Photomicrograph of polyp illustrating surface epithelium, underlying vascular telangiectasis, and plasma cell infiltrate (hematoxylin and eosin stain, original magnification ×170).

Clinical discussion

Dr. O'Callaghan: The combination of an opacified maxillary sinus with nasopharyngeal soft-tissue mass raises a number of diagnostic possibilities. Simple inflammatory disease or uncomplicated allergic changes in a paranasal sinus could account for sinus opacification, but would not explain the presence of the pharyngeal mass.

The differential possibilities to be considered include: a primary maxillary sinus tumor with posterior extension into the nasopharynx, a tumor arising in the nasopharynx with extension forward to involve the antrum, allergic reaction resulting in the formation of an antral polyp with nasopharyngeal extension, and inflammatory disease in the antrum associated with polyp formation in the ethmoid or sphenoid sinuses and nasopharyngeal extension.

Benign tumors of the maxillary antrum are uncommon with an incidence of approximately one third that of cancers of this sinus. Although many benign tumors are nonspecific in appearance, they may demonstrate both soft-tissue mass and thinning or erosion of the antral wall.[1] The most common benign tumor is papilloma, which may be either epithelial or inverting in type. Although a rare tumor, the inverting papilloma most frequently presents unilateral painless nasal obstruction. An allergic history is usually absent. Radiological, unilateral antral opacification and bone destruction may be present, usually involving the medial wall of the antrum,[2] but occasionally involving the nasal bone or cribiform plate of the ethmoid. Differentiation from cancer may be difficult; the distinction usually is made on the basis of longer history, absence of pain, and occasional radiologic findings of reactive sclerosis of the antral walls.

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Malignant tumors involving the maxillary antrum occur in older-age groups, with facial pain a common presenting symptom. Nasal obstruction or epistaxis may occur with tumors arising from the medial wall or floor of the antrum. Bone destruction is a relatively late sign. Malignant tumors most commonly are carcinomas, but other types include fibrosarcoma, osteogenic sarcoma,[3] plasmacytoma, lymphoma, and melanoma. It would be very unlikely for a tumor originating in the maxillary sinus to give rise to a nasopharyngeal soft-tissue mass without first causing extensive facial bone destruction.

Tumors arising in the nasopharynx may involve the maxillary antrum secondarily. The most common tumor in the young adult male is the highly vascular nasopharyngeal angiofibroma which frequently presents nasal obstruction and episodes of severe epistaxis. It usually arises from the roof of the nasopharynx and may grow forward to involve the antrum. Spontaneous regression of this tumor during early adulthood may occur. On radiographic films one may see anterior bowing of the posterior wall of the maxillary sinus on the affected side, best visualized on the lateral view and occasionally seen on the submentovertical view.[4] A relatively sharply circumscribed soft-tissue mass is seen in the nasopharynx with no visible separation between the tumor mass and the roof of the nasopharynx. When the tumor is extensive, it may result in erosion and destruction of the maxillary sinus wall and may also involve the ethmoid sinuses, orbit, and nasal cavity. Characteristic angiographic findings show rapid filling of irregular-caliber vessels in the arterial network, a homogeneous tumor blush, but no early vein filling.[1] Other benign tumors arising in the nasopharynx are relatively nonspecific in appearance and include neurofibroma, extracranial meningioma, and chemodectoma. Chemodectomas may arise primarily in the nasopharynx,[5] either from its roof or from the fossa of Rosenmuller area. Secondary chemodectomas involve the nasopharynx and originate in the jugular bulb. With the exception of the angiofibroma, none of these lesions would cause both maxillary antrum opacification and nasopharyngeal soft-tissue mass.

The most common malignant tumor of the nasopharynx arises in nasopharyngeal mucosa. This tumor may be either the infiltrative type causing diffuse thickening of the nasopharyngeal roof or the exophytic type giving rise to a soft-tissue mass. Sclerosis or destruction of the skull base may occur, and the lesion may extend to involve the paranasal sinuses, oropharynx, or orbit. Primary carcinoma of the nasopharynx has to be distinguished from other causes of a soft-tissue mass with associated bone destruction such as sphenoid sinus carcinoma, chordoma originating from the reigon of the clivus, and chemodectoma of the glomus jugulare.[6]

In the patient under consideration, his young age, history of nasal obstruction, findings of peripheral blood eosinophilia, and the combination of almost total maxillary sinus opacification with nasopharyngeal soft-tissue mass makes an antrochoanal polyp the most likely diagnosis. This lesion had an allergic basis and was due to a combination of allergic edematous changes of the antral mucosa associated with prolapse of the polyp through the ostium and its backward projection into the nasopharynx. In some patients a polyp projecting into the nasopharynx may be associated only with mucosal thickening of the maxillary sinus. In these cases the polyp usually arises from another sinus, most commonly ethmoid or sphenoid[7]; a clear space between the polyp's upper border and the roof of the nasopharynx is not apparent. Typically, an antral polyp which projects into the nasopharynx has smooth rounded posterior and inferior borders with a well-demarcated cleft between the upper border of the polyp and the roof of the nasopharynx. In the open-mouth Water's view, the lower border of the polyp may be seen in the nasopharynx (Fig. 1C). The submentovertical view may show a soft-tissue mass in the nasopharynx, predominantly on one side. This view is useful in determining the site of origin of the polyp when both maxillary sinuses are opacified by mucosal thickening.

Final diagnosis

Left-sided antrochoanal polyp

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Case Reports

Hodgkin's Disease

Thyroid dysfunction following external irradiation

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The thyroid gland is commonly included in the field of radiation therapy for patients with malignant lymphoma and with head and neck tumors. The radiation dose for malignant diseases varies considerably depending on the purpose of treatment and the institutional policies. A substantial number of these patients are developing subclinical and clinical hypothyroidism.[1–5] The risk of developing hypothyroidism after a moderate radiation dose of 2,000 to 4,500 rads has been reported to be 10 to 20 percent. In addition, subclinical hypothyroidism is induced further in one third of the patients. There are also suggestions that external irradiation of the thyroid gland in patients with malignant lymphomas, as well as internal irradiation with radioiodine of the normal and hyperthyroid human thyroid glands, would induce elevations of serum antithyroid autoantibody titers.[2,3,6–10]

However, only a few cases of Graves' disease following irradiation to the thyroid gland have been reported.[8–10] We encountered a young woman who received radiation therapy to the mantle field for her Hodgkin's disease and developed hypothyroxinemia without overt signs and symptoms of hypothyroidism, followed by appearance of nodular goiter and then full-blown Graves' disease.

Case report

This 19-year-old white female noted a lump in her neck in June, 1974. She consulted her physician, and a biopsy of this lump showed a lymph node with Hodgkin's disease, nodular sclerosing type, in July, 1974. Staging workup, including laparotomy with splenectomy, was performed and she was staged as IIIA with involvement of cervical, peripancreatic, and para-aortic lymph nodes. She did not have a lymphangiogram. Her past medical history and family history are negative for thyroid diseases, connective tissue disorders, or an exposure to radiation in her childhood.

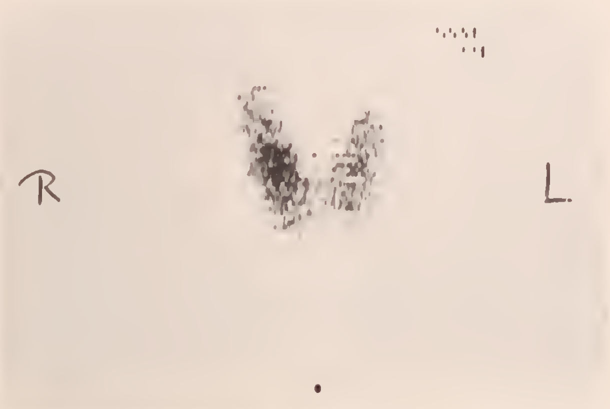

FIGURE 1. Thyroid scan of patient receiving levothyroxine when she developed Graves' disease shows uniform ^{131}I uptake in both lobes of thyroid with prominent right lobe. Nodule was located in isthmus.

She received a total nodal radiation which consisted of radiation fields including mantle, inverted Y, and spleen. The neck received 3,600 rads, the mediastinum and axillae received 3,800 rads, and the inverted Y and spleen received 3,750 rads. The thyroid dose was estimated to be the same as tumor dose of the neck. The mantle radiation was completed on October 30, 1974, and the radiation below the diaphragm was finished on January 7, 1975. Following this treatment, her thyroid gland has been evaluated regularly. Thyroxine iodine was 3 on February 3, 1975, and 2.8 mcg. per 100 ml. on April 13, 1976 (normal: 3.2 to 6.4), with questionably delayed Achilles tendon reflexes. On July 13, 1976, she was found to have a nodule in the isthmus of her thyroid. Thyroid function tests revealed T-4 (thyroxine) RIA (radioimmunoassay) 9.2 mcg. per 100 ml. (normal 4.5 to 11.5), T-3 RIA 184 ng. per 100 ml. (normal: 80 to 220), TSH (thyroid-stimulating hormone) 29.7 microunits per milliliter (normal: <10), and antithyroglobulin antibody titer of less than 1:100 (normal: <1:100). Findings on aspiration cytology of the nodule which measured 19 by 20 mm. were negative for malignant cells. Levothyroxine 0.2 mg. per day was started as suppressive therapy. On August 9, 1976, the nodule measured 14 by 14 mm., and T-4 was 22.2 mcg. per 100 ml. Despite this high T-4 level, the patient did not develop any signs or symptoms of hyperthyroidism. On October 15, 1976, it measured 12 by 12 mm., with T-4 22 mcg. per 100 ml., and TSH less than 0.5 microunits per milliliter. In March, 1977, she developed proptosis, sweating, and weight loss. Physical examination showed resting pulse rate of 120 per minute, moist and warm

TABLE I. Thyroid function tests and physical findings

Tests (normal values)	February, 1975	April, 1976	July, 1976	October, 1976	March, 1977	June, 1977	July, 1978
Thyroxine iodine (3.2 to 6.4 mcg. per 100 ml.)	3.2	2.8	...	...	...	...	...
T-4 (4.5 to 11.5 mcg. per 100 ml.)	...	...	9.2	22	20	<1	10.4
T-3 (80 to 220 mcg. per 100 ml.)	...	...	184.2	...	350	52	146
TSH (<10 microunits per milliliter)	...	...	29.7	<0.5	...	>125	<0.3
Anti-T (<1:100)	...	...	<1:100	...	1:1,600	1:1,400	1:6,400
Anti-M (<1:100)	...	...	...	...	1:6,400	1:1,600	1:6,400
Findings and medications	Normal physical findings	Delayed Achilles tendon reflex?	Thyroid nodule 14 × 14 mm. Rx: T-4*	Thyroid nodule 12 × 12 mm. No symptoms or signs associated with suppressive therapy	LATS (−) nodule size increase with diffuse goiter. Symptoms and signs of Graves' disease. Rx: MMI	Symptoms and signs of myxedema. Add T-4 to MMI.	Diffuse goiter. Rx: PTU and T-4

Anti-T = antithyroglobulin antibody titer; MMI = methimazole; PTU = propylthiouracil.
Anti-M = antimicrosomal antibody titer.
*T-4 = levothyroxine.

skin, exophthalmos, and brisk deep-tendon reflexes. Her thyroid nodule was enlarged to 21 by 21 mm., and the remainder of the gland was diffusely enlarged (Fig. 1). Thyroid function tests showed T-4 20 mcg. per 100 ml., T-3 350 ng. per 100 ml., antithyroglobulin antibody 1:1,600, antimicrosomal antibody 1:6,400, and negative LATS (long-acting thyroid stimulator). A 24-hour I^{131} uptake was 24 percent (normal 5 to 35) on 0.2 mg. per day of levothyroxine. Her symptoms, signs, and laboratory data confirmed a diagnosis of Graves' disease, and methimazole was started; levothyroxine was discontinued. Three months later she developed clear symptoms and signs of myxedema with thyroid function test results of T-4 less than 1 mcg. per 100 ml., T-3 52 ng. per 100 ml., and TSH more than 125 microunits per 100 ml. Levothyroxine was added to methimazole. Thyroid function tests performed in May, 1978, showed T-4 10.4 mcg. per 100 ml., TSH less than 0.3 microunits per 100 ml., antithyroglobulin antibody 1:6,400, and antimicrosomal antibody 1:6,400. She also has been clinically euthyroid, and her ophthalmopathy has been stable. In terms of Hodgkin's disease, she was doing well until November, 1978, when she relapsed in her left lung and received radiation therapy of 3,500 rads to her left lung lesion with good response. Propylthiouracil was discontinued in July, 1979. Subsequent radioiodine study while on levothyroxine showed insufficient uptake by the thyroid. She has been maintained on levothyroxine. The results of thyroid function tests are summarized in Table I.

Comment

Our patient received mantle field radiation therapy of 3,600 rads for Hodgkin's disease which included the thyroid gland in its field in 1974. Hypothyroxinemia was noted on two occasions; seven and nine months after radiation therapy. Twenty-one months after mantle field radiation she developed a thyroid nodule with a high TSH level and normal T-4 value, suggesting recovery from biochemical hypothyroidism due to sustained TSH stimulation, but antithyroglobulin antibody was negative. Twenty-nine months after radiation therapy, full-blown Graves' disease developed, with typical clinical and laboratory findings. The fact that normal radioiodine uptake while on levothyroxine changed to almost complete suppression of uptake after 28 months of antithyroid therapy also supports this diagnosis. She was also found to have elevated titers of antithyroglobulin and antimicrosomal antibodies.

In the pathogenesis of Graves' disease, the underlying process of hyperthyroidism and ophthalmopathy is associated with autoimmune mechanism.[11-14] Practically all patients with Graves' disease have one or more of thyroid-stimulating immunoglobulins in the circulation, such as LATS, LATS-protector, human thyroid stimulator, and human thyroid adenyl-cyclase stimulator.[11,12] A high proportion of the patients have antimicrosomal and/or antithyroglobulin antibody titers.

In our patient, LATS was negative when she developed Graves' disease, and the investigation for the other thyroid-stimulating immunoglobulins was not performed. However, antithyroglobulin and antimicrosomal titers became significantly elevated, suggesting that this case is associated with autoimmune mechanism which was probably triggered by radiation therapy for Hodgkin's disease.

Einhorn, Fagraeus, and Jonsson[6] demonstrated that during the first year following radioiodine therapy for hyperthyroidism, there is a significant increase of the cytoplasmic antibody.[6] However, it was transient and low titer. They later reported that there was a significantly high incidence of positive thyroid antibodies in euthyroid subjects after iodine-131 therapy.[7]

The histologic effects of I^{131} therapy (gamma-ray irradiation) and external x-ray irradiation to the thyroid are similar in quality.[15] It has been reported that B-cell function would be altered by irradiation. Immunoglobulin and thyroid antibody synthesis by nonirradiated B cells was enhanced in vitro by coculture with autologous irradiated lymphocytes, that is, irradiation of T cells appeared to kill suppressor T cells, leaving a population of helper T cells which stimulated B cells to produce immunoglobulin and thyroid antibodies.[16] Thyroid dysfunction, either myxedema or Graves' disease secondary to, or associated with, autoimmune process, developed following external neck irradiation, with doses ranging from 2,625 to 4,850 rads in a few reports.[2,3,8–10] Most of the patients had positive thyroid autoantibodies in the serum. In contrast, Glatstein et al.[1] reported a high incidence of hypothyroidism in patients with lymphoma who received a moderate dose of bilateral neck irradiation, but its association with autoimmune mechanism was not suggested in their study. Unfortunately, antithyroid antibodies were not investigated in their series. Ramsay et al.[5] encountered hyperthyroidism in one of 14 pediatric Hodgkin's disease patients who received radiation therapy to the neck area. However, their investigation did not include thyroid autoantibody titers.

Chronic thyroiditis is reported to be the most common thyroid disease induced by irradiation to the thyroid.[17,18] Our recent study has shown radiation-induced hypothyroidism, probably secondary to chronic thyroiditis, which is strongly suggested by evaluation of thyroid antibody titers, can be prevented by chemotherapy consisting of prednisone, alkylating agents, and/or nitrosoureas, and vinca alkaloids.[2] These results would support that radiation-induced thyroid dysfunction is frequently associated with autoimmune phenomena because chemotherapeutic agents, especially prednisone and alkylating agents, are well known to be immunosuppressant. Cyclophosphamide has been shown to suppress the development of experimental thyroiditis in animals.[19,20]

Autoimmune disease of the thyroid can present itself as Graves' disease or chronic thyroiditis, which may end up as myxedema. It can be postulated in our patient that her initial hypothyroxinemia may well be due to direct injury to the thyroid gland by irradiation and recovery of hypothyroxinemia occurred by prolonged TSH stimulation, which results in the development of nodular goiter. Subsequently, the radiation-induced autoimmune process became overwhelming, leading to the development of Graves' disease.

Summary

A patient with Hodgkin's disease, who was treated by total nodal irradiation and subsequently developed hypothyroxinemia followed by full-blown Graves' disease, is reported.

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Minorities and how they grow old

Old age—a difficult time for many people—can be especially so for blacks and members of other racial and ethnic minority groups. Compared to the majority of Americans, these individuals are likely to have less education and money, less adequate housing, poorer health, and fewer years of life.

Many minority groups—especially black, Hispanic, Asian, and Native Americans—bear the added burdens of racial prejudice, language barriers, suspicion of bureaucratic processes, and difficulty obtaining needed health and other services.

In addition, minority group members who have suffered racial discrimination all their lives are, in their later years, in double jeopardy because they may also be discriminated against for being old.

The number of individuals with ethnic affiliations is greater than the word "minority" might imply. According to a study of the ethnic elderly supported by the NIA (National Institute on Aging), almost 40 percent of the entire U.S. population over age 65 in the 1980s will be black or first and second generation Americans belonging to various racial/ethnic subgroups.

Ethnic and racial affiliations are important in determining not only individual attitudes, problems, and needs, but the considerable strengths many minority members exhibit in adapting to old age. Yet society at large and the research community in particular seldom take these differences into account.

Among older blacks, for example, hypertension is twice as prevalent as among whites, and accidents are the leading cause of death for older Alaskan Natives and American Indians. The leading causes of death for Hispanics are not even known, because those statistics are just beginning to be collected.

Such diverse populations as Samoans, Chinese, Filipinos, Koreans, Hawaiians, Japanese, and Vietnamese are lumped together as Asian and Pacific Americans. Yet lifestyles, attitudes, and other differences exist among these populations. For example, food preferences and tastes vary among these groups and, in turn, have a great impact on the effectiveness of nutrition programs.

The little that is known about minority members does not support some common stereotypes. Blacks have long been believed to die sooner than whites and, indeed, a black American male can expect, at birth, to live to age 60, and a black woman to age 68.3. White men and women, by contrast, can expect to live 7 to 8 years longer. But after about age 75, blacks who survive apparently begin to experience longer life expectancies than whites, in what is known as the "crossover phenomenon."

To add to our knowledge of aging minority group members, NIA has funded a study of about 5,000 black Americans living in 100 communities across the nation. This study, among the most extensive examinations ever conducted of these individuals, will focus on aging among blacks, and on the transmission of attitudes and values among generations. The study will explore regional differences among blacks in a number of important social and health-related areas, including work and retirement. Such efforts help law and policy makers design programs that are genuinely helpful to minority groups.

For the future, the NIA is concerned with how different racial and ethnic minorities age in our society. Specifically, the research community, including investigators from minority groups, has been invited to study how family structure, social networks, occupations, lifestyles, environmental conditions, personality traits, attitudes, ways of coping, and health care practices of minority groups influence the way these individuals age.

Among the many organizations concerned with aged minorities are: National Center on Black Aged, 1424 K Street, N.W., Suite 500, Washington, D.C. 20005; National Indian Council on Aging, P.O. Box 2088, Albuquerque, N.M. 87103; National Pacific/Asian Resource Center on Aging, 927 15th St., N.W., Room 812, Washington, D.C. 20005; and Asociacion Nacional Pro Personas Mayores, 1730 W. Olympic Blvd., Suite 401, Los Angeles, Calif. 90015.

Modern burn care centers credited with saving lives

Modern burn care centers are saving many lives.

Severely burned patients are being saved at a higher rate than ever before, and hospitalization periods are being shortened, says a report in the November 7 Journal of the American Medical Association.

Improvements in burn care from 1965 to 1979 are tabulated in a report from the National Burn Information Exchange, Ann Arbor, Michigan. Case reports of 37,442 patients collected during those years from 120 burn care facilities are examined.

Survival ratio of all patients, ranging from only minor burns to severe burns, was 81 percent in 1965–71, up to 86 percent in 1972–75, and at the level of 90 percent in 1976–79.

Extent and severity of the burn plays a major role in survival, the survey shows. But at all levels, the survival record has improved. In the 1960s, only 19 percent of those burned over 70 to 79 percent of the body surface survived. In the late 1970s that ratio had climbed to 32 percent.

Irving Feller, M.D., of the division of burn surgery, University of Michigan, notes that the gains have come about through a notable increase in interest in the care of the burned patient during the last 35 years.

The number of professionals trained in burn care, and the number of burn care facilities have been increasing steadily.

The survey report published this month offers data to support the contention that the money and effort spent on burn centers and their staffs has paid off in lives saved, Dr. Feller declares.

Budd-Chiari Syndrome Complicating Bronchogenic Carcinoma

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Obstructive lesions of the inferior vena cava may lead to thrombotic occlusion of the hepatic veins. The majority of cases of Budd-Chiari syndrome are preceded by inferior vena caval obstruction. Neoplasm appears to be a common cause, particularly renal carcinoma and tumors of the inferior vena cava and right atrium.[1-3] Bronchogenic carcinoma seldom presents Budd-Chiari syndrome.[4,5]

The purpose of this article is to report two more cases of bronchogenic carcinoma producing Budd-Chiari syndrome with some unusual manifestations.

Case reports

Case 1. A 60-year-old white male was admitted to the hospital because of a three-week history of generalized weakness, bilateral leg edema resistant to diuretics, persistent vomiting, and hypotension. Two years prior to admission he had undergone a right pneumonectomy and partial pericardiectomy for epidermoid carcinoma.

On admission he was semicomatose, cyanotic, and mildly icteric. The abdomen was slightly distended and some tenderness was noted in the epigastrium; both legs were edematous and cyanotic. Deep tendon reflexes of the lower extremities were hypoactive. The stool gave a positive test result for occult blood.

Blood studies showed white blood cell count of 22,400 per cubic millimeter, with 83 percent neutrophils and 17 percent lymphocytes; hematocrit was 47, and platelets were 167,000 per cubic millimeter; lactic dehydrogenase was 442 U., serum glutamic oxaloacetic transaminase 310 U., and alkaline phosphatase 4.8 U. per milliliter; cholesterol 160 mg., conjugated bilirubin 6.9 mg., and total bilirubin 9.8 mg. per deciliter; and total protein was 6.8 Gm. per deciliter. Prothrombin time was 50 seconds with a control of 12.9 seconds, and euglobulin lysis test result was negative.

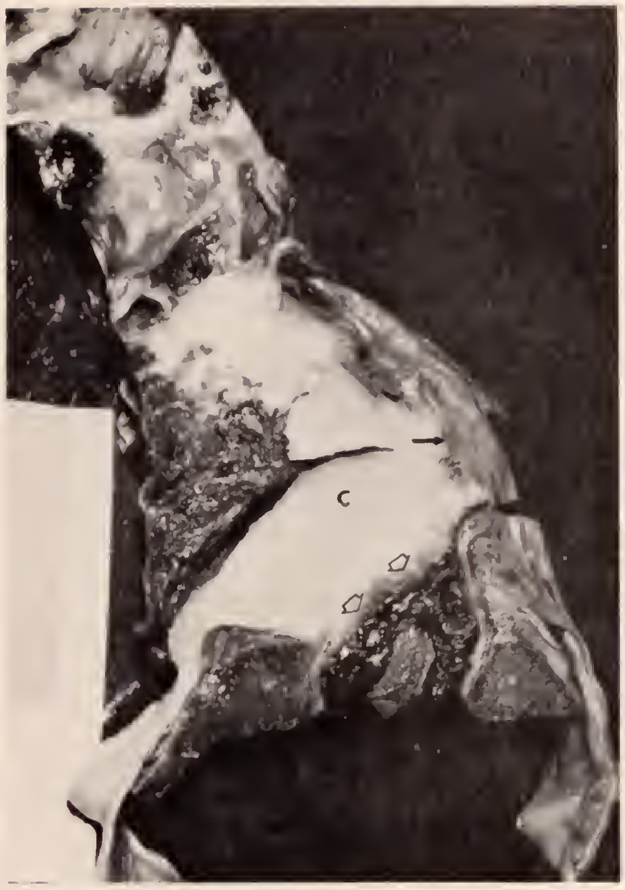

FIGURE 1. Sagittal section through liver and inferior vena cava, with attached tumor infiltrating right atrial wall. "C" is tumor, and open arrows point to thrombosed orifice of inferior vena cava.

A chest x-ray film showed a right pleural effusion; a plain film of the abdomen showed no signs of intestinal obstruction. Inferior vena cavogram via the femoral vein revealed complete obstruction at the iliac level. There was no visualization of the inferior vena cava; extensive collateral circulation was noted (Fig. 1). A diagnosis of Budd-Chiari syndrome was made. The ascites and leg edema increased, and sodium cephalothin and heparin were administered intravenously. On the fourteenth hospital day the patient became lethargic and died.

At autopsy, the peritoneal cavity disclosed 1,500 ml. of serosanguinous fluid. The right lung was absent from previous pneumonectomy. The right bronchial stump did not reveal any residual tumor, but the hilum was surrounded by tumor which extended to the pericardium and encroached downward on the intrathoracic portion of the inferior vena cava, producing thrombosis at its entry into the right atrium.

The left lung weighed 475 Gm. and was free of tumor. The liver weighed 1,400 Gm. and was smooth on its external surface. The cut surface revealed an accentuated nutmeg appearance. All the major hepatic veins were occluded by thrombi. The spleen weighed 150 Gm. and was unremarkable. Microscopic examination of the tumor revealed a well-differentiated squamous cell carcinoma with keratinization and pearl formation. The tumor infiltrated the entire thickness of the wall of the inferior vena cava with organized thrombus. The main hepatic veins were occluded by organized thrombi. The liver showed extensive centrilobular necrosis and centrizonal sinusoidal engorgement. There were metastases to the peripancreatic lymph nodes.

Case 2. A 66-year-old white male in acute respiratory distress was transferred to Westchester County Medical Center from another hospital, where he had been admitted seven days previously because of shortness of breath, shoulder pain, and gradual weight loss of 20 pounds over the past year. He had a history of atherosclerotic heart disease, mildly hypertensive, and had been taking digoxin for congestive heart failure.

The anteroposterior diameter of the chest was increased. Decreased breath sounds and dullness to percussion were heard over the lower half of the right hemithorax. Findings on the remainder of the physical examination were within normal limits. The electrocardiogram showed a left bundle branch block and atrial fibrillation. The chest x-ray film revealed an elevated right hemidiaphragm and atelectasis of the right lower lobe. Tomography of the right lower lobe again showed atelectasis and a focal infiltrate. Bronchogenic carcinoma was suspected clinically.

The patient's condition deteriorated rapidly within hours after admission, with signs of hepatic and renal failure. The lactic acid dehydrogenase rose from 514 U. to 4,390 U. per milliliter. The serum glutamic pyruvic transaminase rose to 3,650 U. from 120 U. per milliliter. The total bilirubin was 4.4 mg., and the blood urea nitrogen 85 mg. per deciliter. The patient became oliguric and hypotensive on the third hospital day, and died on the fourth day.

Postmortem examination revealed ascites of 1,500 ml. of clear straw-colored fluid. The lungs weighed 2,350 Gm.; and a tumor was present in the right lower lobe, infiltrating adjacent structures. The rest of the lungs disclosed pulmonary edema and severe hemorrhages. The orifice of the inferior vena cava, at its entry into the right atrium, was also completely obliterated by direct extension of the tumor. The thrombosis extended downward beyond the right renal vein. The hepatic veins and portal veins were all occluded by recent thrombi. The liver weighed 1,850 Gm. and showed marked centrilobular necrosis with areas of extensive infarction; however, the quadrate lobe was spared. The spleen weighed 180 Gm. and was soft. There were esophageal varices. The kidneys were edamatous and weighed 180 Gm. each. Microscopic examination of the tumor disclosed moderately differentiated squamous cell carcinoma. The tumor had metastasized to the hilar lymph nodes, but there were no other metastases.

Comment

The Budd-Chiari syndrome is a rare entity.[1,6] It is estimated that in 70 percent of the cases, the underlying etiology is unknown. Some consider endophlebitis of hepatic vein as the primary lesion, while others insist on primary thrombosis.[4,7] The remaining 30 percent are secondary to neoplasm, polycythemia,[8] toxins,[7–10] congenital anomalies,[6–11] primary lesions of the hepatic parenchyma, oral contraceptives,[12] and aspergillosis.[13] Characteristic signs and symptoms of the disease are ascites, abdominal pain, hepatosplenomegaly, edema of the legs and trunk, and distended superficial veins in the abdominal wall. The symptoms vary, depending on the underlying disease, and the extent and rapidity of onset of occlusions of the veins. Acute Budd-Chiari syndrome may be rapidly fatal, with shock and death in a few days. The chronic form may last for months and may be mistaken for cirrhosis with portal hypertension.

Inferior vena caval obstruction is a leading cause of hepatic vein occlusion. Incomplete occlusion of the hepatic veins may lead to a gradual onset of Budd-Chiari syndrome, and a chronic course. However, occlusion of all or most of the hepatic veins has been shown experimentally to lead to acute liver failure due to extreme congestion with hemorrhagic necrosis. Blood pressure drops rapidly, and portal hypertension ensues.[13,14]

The second case is most unusual, in that the patient presented unrelenting progressive respiratory distress, without significant characteristic signs and symptoms of Budd-Chiari syndrome. The diagnosis was not suspected. A similar case has been reported by Dickinson,[15] but in that case the primary tumor was in the liver. The respiratory distress may be attributed to pulmonary edema, which weighed three times the normal weight. The two cases we are reporting had bronchogenic squamous cell carcinoma that had directly infiltrated the thoracic portion of the inferior vena cava, leading to obstruction and subsequent thrombosis of the hepatic vein.

Acute Budd-Chiari syndrome is invariably fatal. Hepatic scintiscan is a useful screening procedure, since it shows characteristic central localization of radioisotope.[16] The site and extent of obstruction is determined by other radiologic techniques, which include inferior venacavography with or without a transhepatic venography.[17] However, treatment remains largely symptomatic. The role of surgery is controversial and depends on the cause of obstruction.[18] While surgery has been helpful in cases of Budd-Chiari syndrome due to membranous obstruction of inferior vena cava, there has been no attempt at a surgical approach for acute cases secondary to bronchogenic carcinoma. Takeuchi et al.[6] have observed that patients developing secondary hepatic vein occlusion following vena caval obstruction have a poorer prognosis.[18]

With the increasing incidence of bronchogenic carcinoma, it would be well to recall that this rare dramatic entity may be one of the varied manifestations of lung cancer.

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New treatment era seen for menstrual pain

A new era of treatment is at hand for menstrual cramps, says a report in the October 24/31 Journal of the American Medical Association.

New medications are highly effective in relieving the pain that often accompanies the menstrual period, says a report in the Journal's Medical News Section.

For decades, an accepted approach to dysmenorrhea has been minor tranquilizers, mild pain relievers, and an automatic diagnosis of "psychogenic" pain, the report says.

Psychological factors may be strong in some cases of menstrual pain, but in many there are bodily changes causing the cramps, changes that can be offset by medications.

Gynecologists are taking menstrual pain very seriously these days. The pain is known to cause loss of many woman-hours from work and school.

Menstrual pain is a complex process in the body, but an important factor is a high bodily production of a substance known as prostaglandins during the period of menstruation. The new medications reduce the excess prostaglandin production, and thus relieve pains.

Prostaglandin inhibitors are effective for relieving pain of dysmenorrhea in 65 to 100 percent of women patients, Dr. W. Y. Chan, Cornell University Medical College, New York City, said.

However, says Dr. Chan, the prostaglandins represent a "shotgun" approach to the problem, and more selective drugs are sought for use in the future.

One problem, the report declares, is to reach physicians with the message that new tools are available for relief of menstrual pain. One family physician who treats many dysmenorrheic patients told JAMA Medical News:

"So many of the women come to me after seeing other physicians who have told them, 'It's all in your head.'"

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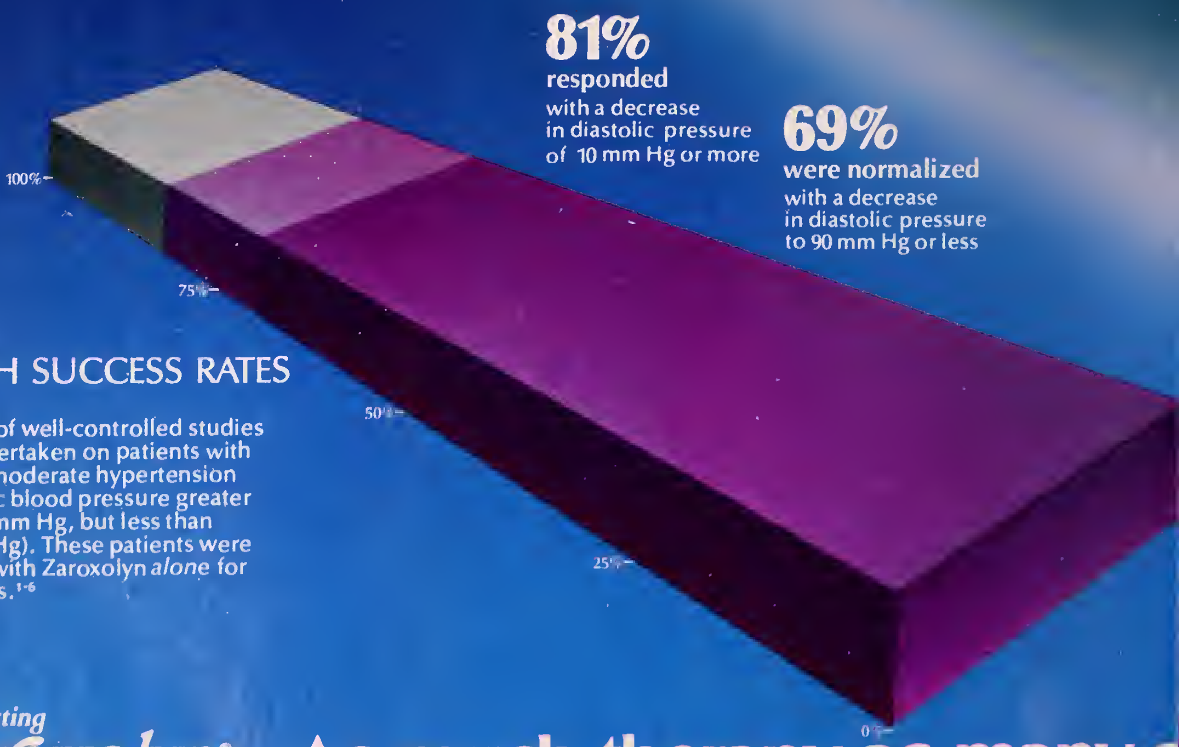

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Before prescribing, see complete prescribing information in the package insert, or in PDR, or available from your Pennwalt representative. The following is a brief summary **Indications:** Zaroxolyn (metolazone) is an antihypertensive diuretic indicated for the management of mild to moderate essential hypertension as sole therapeutic agent and in the more severe forms of hypertension in conjunction with other antihypertensive agents. Also, edema associated with heart failure and renal disease Routine use in pregnancy is inappropriate **Contraindications:** Anuria, hepatic coma or precoma, allergy or hypersensitivity to Zaroxolyn **Warnings:** In theory cross-allergy may occur in patients allergic to sulfonamide-derived drugs, thiazides or quinethazone. Hypokalemia may occur, and is a particular hazard in digitalized patients, dangerous or fatal arrhythmias may occur Azotemia and hyperuricemia may be noted or precipitated Considerable potentiation may occur when given concurrently with furosemide When used concurrently with other antihypertensives, the dosage of the other agents should be reduced Use with potassium-sparing diuretics may cause potassium retention and hyperkalemia Administration to women of child-bearing age requires that potential benefits be weighed against possible hazards to the fetus Zaroxolyn appears in the breast milk Not for pediatric use **Precautions:** Perform periodic examination of serum electrolytes, BUN, uric acid, and glucose Observe patients for signs of fluid or electrolyte imbalance, namely hyponatremia, hypochloremic alkalosis and hypokalemia. These determinations are particularly important when there is excessive vomiting or diarrhea, or when parenteral fluids are administered Patients treated with diuretics or corticosteroids are susceptible to potassium depletion. Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Insulin requirements may be affected in diabetics Hyperglycemia and glycosuria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Orthostatic hypotension may occur. Dilutional hyponatremia may occur Zaroxolyn 10 mg tablets contain FD&C Yellow No 5 (tartrazine) which may cause allergic-type reactions (including bronchial asthma) in certain susceptible individuals. Although the overall incidence of FD&C Yellow No 5 (tartrazine) sensitivity in the general population is low, it is frequently seen in patients who also have aspirin sensitivity **Adverse Reactions:** Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, vertigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urticaria, other skin rashes, dryness of mouth, hypokalemia, hyponatremia, hypochloremia, hypochloremic alkalosis, hyperuricemia, hyperglycemia, glycosuria, raised BUN or creatinine, fatigue, muscle cramps or spasm, weakness, restlessness, chills, and acute gouty attacks. **Usual Initial Once-Daily Dosages:** mild to moderate essential hypertension—2½ to 5 mg; edema of cardiac failure—5 to 10 mg; edema of renal disease—5 to 20 mg Dosage adjustment is usually necessary during the course of therapy **How Supplied**: Tablets, 2½, 5 and 10 mg.

References: 1. Data on file, Medical Department, Pennwalt Pharmaceutical Division **2.** Van Hoose MC, Cutler RE Antihypertensive efficacy of metolazone (Zaroxolyn®) alone and combined with reserpine in treatment of essential hypertension *Curr Ther Res* 20 266-276, 1976 **3**. Cangiano JL, Campos JA, Trevino A IV, et al The effects of metolazone in the long-term treatment of essential hypertension *Curr Ther Res* 16 778-785, 1974 **4**. Cangiano JL. Effects of prolonged administration of metolazone in the treatment of essential hypertension *Curr Ther Res* 20 745-750, 1976 **5.** Dornfeld L, Kane RE Metolazone in essential hypertension: The long-term clinical efficacy of a new diuretic. *Curr Ther Res* 18 527-533, 1975 **6** Materson BJ, Oster JR, Perez-Stable EC Antihypertensive effects of metolazone (Zaroxolyn) *Curr Ther Res* 16 890-896, 1974

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AGING

Nutrients to Age without Senility. By Abraham Hoffer, M.D., Ph.D., and Morton Walker, D.P.M. New Canaan, Conn., Keats Publishing Co., 1980. 230 pages. Cloth, $10.95.

Lifestyle and nutritional changes necessary to avoid senility.

HYPERSENSITIVITY

Brain Allergies: the psycho-nutrient connection. By William H. Philpott, M.D., and Dwight K. Kalita, Ph.D. New Canaan, Conn., Keats Publishing, 1980. 229 pages. Cloth, $15.

Allergies to everyday food substances might be the cause of many emotional mental and physical problems.

Lou Gehrig unfairly saddled with name of fatal disease

A plea to cease referring to amyotrophic lateral sclerosis as "Lou Gehrig's disease" is voiced in the November 28 Journal of the American Medical Association.

Writes Richard Shalett Cohen, M.D., of Hamilton, N.Y.:

"This is an appeal to fellow physicians who love baseball and who therefore recognize Lou Gehrig as a great player and a fine gentleman. My appeal is to remove the epithet 'Lou Gehrig's disease' from ALS (amyotrophic lateral sclerosis).

"ALS is now known as Lou Gehrig's disease. I think this is a regrettable and shameful happening. Where else in contemporary medicine has the name of a celebrity (especially one who is so universally admired) actually replaced the medically accepted name?

"Certainly Lou Gehrig's name should not be used in this way by those in our profession who understand the importance of this wonderful athlete and special human being.

"Let us remove the name of Lou Gehrig from medical infamy. Let us no longer hear the term Lou Gehrig's disease."

Primary Meningococcal Pericarditis with Tamponade

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Purulent pericarditis as a complication of meningitis due to *Neisseria meningitidis* has been well documented. Primary meningococcal pericarditis in the absence of associated meningitis is extremely rare; only 12 patients have been previously reported in the literature.[1-11] We report another case complicated by cardiac tamponade.

Case report

A 62-year-old white woman was admitted to the coronary care unit of Cabrini Medical Center on June 6, 1978, with the chief complaint of sudden onset of pressure-like sensation across the chest of one-hour duration prior to admission. There was no recent upper respiratory tract infection or significant past medical history other than treatment for pulmonary tuberculosis 30 years ago.

On admission, the blood pressure was 150/80, pulse rate 96, respiration 24, and temperature 99°F. Findings on physical examination were within normal limits. Heart sounds were normal and no pleural or pericardial rub was audible. Neurologic and dermatologic examinations revealed no abnormalities. Findings on EKG (electrocardiogram) and chest roentgenogram were normal. White blood cell count was 15,300 with 68 percent polymorphonuclear leukocytes, 8 percent band forms, 1 percent monocytes, 1 percent eosinophils, and 22 percent lymphocytes. The patient was started on heparin because pulmonary embolism was considered a strong clinical possibility. Emergency lung scan revealed a perfusion defect in the lower lobe of the left lung.

Forty-eight hours after admission, EKG showed changes of pericarditis with S-T segment elevation in precordial and limb leads. The patient remained afebrile. Findings on cardiac examination disclosed no pericardial rub. Cardiac enzymes were not elevated. Echocardiogram demonstrated a small pericardial effusion behind the left ventricular posterior wall. Heparin was discontinued.

On the third hospital day, the patient became progressively dyspneic and restless. The blood pressure fell to 80 mm.Hg by palpation; the pulse rate rose to 106 per minute, and the respiration 34 per minute. The jugular venous pressure meniscus, which was normal on admission, increased to 5 cm. above the clavicle at 45 degrees (estimated venous pressure 15 cm.). Heart sounds were faint without pericardial rub. Findings on chest roentgenogram demonstrated an increase in cardiac silhouette. Repeat echocardiogram showed moderate pericardial effusion anteriorly and posteriorly with signs of cardiac compression. Emergency pericardiocentesis by subxyphoid approach yielded 50 ml. purulosanguinolent fluid; blood pressure immediately rose to 100/70 after the procedure. Gram stain of the pericardial fluid disclosed many polymorphonuclear leukocytes and gram-negative diplococci. The patient was started on intravenous ampicillin and oxacillin sodium after blood cultures were taken. Pericardial fluid culture subsequently grew *N. meningitidis* type W 135, but blood cultures were sterile. Oxacillin sodium was discontinued and ampicillin continued at 16 Gm. per day. A spinal tap was not performed because of absent neurologic signs.

The patient improved clinically for several days after pericardiocentesis and then deteriorated. She became more and more dyspneic. A paradoxical pulse of 20 mm.Hg was detected. The central venous pressure remained elevated at 20 cm. of water. The white blood cell count was above 20,000. The heart size increased in subsequent chest roentgenograms. EKG showed atrial fibrillation with rapid ventricular response. However, no pericardial rub was detected. On the fourteenth hospital day, partial pericardiectomy was performed, and about 300 ml. of fibrinous fluid evacuated from the pericardial cavity. Postoperatively, paradoxical pulse disappeared, EKG returned to sinus rhythm, and the white blood cell count decreased to 12,000 within two days. The patient recovered promptly after surgery and was discharged home two weeks later. She was well without any complications at one and a half years' follow-up.

Comment

Bacterial invasion of the pericardium secondary to hematogenous seeding may occur early in the course of meningococcemia. Purulent bacterial pericarditis, as one of the extrameningeal complications of meningococcal meningitis, occurs with a reported incidence of 4.3 to 19 percent.[12-15] By

TABLE I Clinical features; treatment and outcome of patients with primary meningococcal pericarditis

Age and Sex Ref.	Presenting Symptoms	Temp. °F.	Peri Rub	Para pulse	WBC	Bld. Cult.	P. Fl. Cult.	CSF Cult.	Treatment	Steroid	Outcome
32 M[1]	Substernal pain, dyspnea, orthopnea	101	A	P	9,400	P	P	LPND	Pericardial paracentesis (200 ml. thin, serosanguinous fluid); sulfanilamide, antimeningococcic serum	No	Recovered
22 M[2]	Sharp substernal pain, severe dyspnea, cyanosis	96	P	P	35,000	S	P	N	2 pericardiocentesis (290 ml. bloody fluid); penicillin	Hydrocortisone and prednisone	Recovered
2½ M[3]	Fever, nuchal rigidity	101	P	P	11,600	P	S	N	3 pericardiocentesis (210 ml. purulent fluid); ampicillin, methicillin, penicillin	No	Recovered
19 M[4]	Chest pain	101.6	P	. . .	16,000	P	S	N	Diagnostic pericardiocentesis (100 ml. serosanguinous fluid); erythromycin, tetracycline, penicillin	No	Recovered
24 M[4]	Chills, fever, nausea, myalgias, petechias and ecchymosis of skin, midsternal chest discomfort	103	P	. . .	7,800	P	. . .	LPND	No pericardiocentesis; penicillin, sulfadiazine, heparin	Hydrocortisone and prednisone	Recovered
20 M[5]	Stabbing pain in lower precordium and upper abdomen	100	P	P	18,000	P	. . .	N	No pericardiocentesis; chloramphenicol, penicillin	No	Recovered
17 F[6]	Sharp central chest pain	101.3	P	P	15,700	P	S	N	5 pericardiocentesis; pericardectomy with evacuation of blood clots and soft fibrinous material; penicillin	No	Recovered
18 M[7]	Sharp, substernal chest pain, fever, rigors, drenching sweats	96.8	P	P	14,900	S	P	N	Pericardiocentesis followed by surgical pericardial drainage (550 ml. yellow purulent fluid); cephalothin, gentamicin, penicillin	No	Recovered
18 M[8]	Sharp substernal chest pain	104.3	A	. . .	18,000	P	. . .	LPND	No pericardiocentesis; ampicillin	No	Recovered
49 F[9]	Precordial chest pain	102.2	P	P	32,000	P	S	LPND	Pericardiocentesis (350 ml. thick yellow pus), followed by pericardial window (400 ml. thick pus); ampicillin, penicillin	Hydrocortisone	Recovered
16 F[10]	Abdominal pain, diarrhea, ruptured follicle cyst of left ovary	99.5	P	. . .	12,000	P	P	LPND	Pericardiocentesis followed by pericardial drainage (820 ml. purulent fluid); penicillin, gentamicin	No	Recovered
14 M[11]	Severe retrosternal chest pain, dyspnea, tender abdomen, swollen and tender right ankle	100.4	P	P	15,700	S	P	LPND	Indwelling percutaneous pericardial drainage (1,500 ml. pus); cephaloridine, sulphadimidine	No	Recovered
62 F (Present case)	Pressure-like chest pain	99	A	P	15,300	S	P	LPND	Pericardiocentesis (50 ml. purulosanguinolent fluid), followed by partial pericardiectomy (300 ml. fibrinous fluid); oxacillin, ampicillin	No	Recovered

Abbreviations: Temp. = Temperature, Peri Rub = Pericardial rub, Para pulse = Paradoxical pulse, WBC = White blood cell count, Bld. Cult. = Blood culture, P. Fl. Cult. = Pericardial fluid culture, CSF Cult. = Cerebrospinal fluid culture, M = Male, F = Female, A = Absent, P = present or positive, S = Sterile, LPND = Lumbar puncture not done.

contrast, primary meningococcal pericarditis, that is pericarditis without meningitis, is exceedingly rare; to this date, only 12 cases have been reported (Table I).[1-11]

Predominant initial clinical features of primary meningococcal pericarditis include fever, chest pain, pericardial friction rub, and leukocytosis. Our patient had neither a pericardial rub nor fever and, therefore, aroused little suspicion for pericarditis on initial examination. Clinical diagnosis of pericarditis with effusion was first suggested on the second hospital day when the cardiac silhouette increased in dimension, coupled with diffuse, moderately elevated S-T segment changes (concave upward) on the EKG. Clinical signs of cardiac tamponade rapidly ensued, and an echocardiographic examination confirmed the presence of moderate pericardial effusion. This diagnosis was firmly established by pericardiocentesis, and the resultant aspirate yielded *N. meningitidis* as the offending organism on culture.

The syndrome of cardiac tamponade, evident in our patient, appears to be a common clinical finding in primary meningococcal pericarditis. Features of cardiac tamponade are described in approximately 62 percent of reported cases (Table II).

The bacterial pathogen is usually identified by conventional methods of Gram staining and culture of the blood and/or pericardial fluid. *N. meningitidis* was grown from the blood culture in 9 of 12 patients (75 percent); the pericardial fluid provided this diagnosis in 5 of 9 patients (55 percent) (Table II). Although pericardial fluid culture was sterile in

TABLE II. Analysis of various features of 13 patients with primary meningococcal pericarditis

Symptoms	Number of Patients
Chest Pain	11
Fever (more than 99° F.)	10
Pericardial rub	10
Cardiac tamponade	8
Leukocytosis (more than 11,000)	11
Positive blood culture	9
Positive pericardial fluid culture*	6
Therapeutic pericardiocentesis or surgical drainage	9
Steroid	3

* Pericardiocentesis or surgical drainage was not performed in three patients.

one patient,[9] the presence of this offending organism was strongly suspected from a Gram-stain study of the same fluid. Interestingly enough, meningococcus was confirmed in this patient by the counter-current immunoelectrophoresis, a method that is capable of detecting this specific bacterial agent.

In all reported cases with cardiac tamponade, except one,[11] pericardiocentesis was used on the initial approach for the relief of cardiac compression. Failure of the procedure to accomplish this goal in five of eight patients led to the decision for open surgical drainage.[6,7,9,10] In the remaining three patients, pericardiocentesis alone was used, but often as a repeated procedure.[2,3]

On the basis of our experience and that gleaned from the literature, open surgical pericardial drainage may be the effective therapeutic approach when cardiac tamponade is present. This procedure has often produced dramatic clinical improvements and abated the usual protracted, stormy clinical course, observed with pericardiocentesis alone.

Antibiotic treatment represents the therapeutic mainstay for meningococcal pericarditis. Penicillin is at present overwhelmingly favored as the drug of choice; chloramphenicol is considered an alternative agent. Bacterial resistance to these drugs has not been reported to date.

Steroids in the management of meningococcal pericarditis is considered problematical. The course of all reported patients with this form of pericarditis was not significantly altered by the introduction of steroids, as long as an appropriately selected antibiotic and adequate surgical drainage were effectively maintained.

Finally, M-mode and/or two-dimensional echocardiography have emerged as the best and most accurate noninvasive procedure for the detection of pericardial effusion and is currently utilized when pericardial effusion is clinically suspected. Properly performed, an echocardiographic examination can gauge the severity and extent of effusion associated with pericarditis and, coupled with clinical findings, contribute to the decision regarding management.

All reported patients, including ours, have survived the acute illness. Nonetheless, this form of pericarditis may lead to a devastating consequence unless recognized early and treated vigorously.

Summary

A case of primary meningococcal pericarditis with tamponade, representing the thirteenth reported patient, is described. Features of progressive effusion with eventual tamponade were clinically apparent without chest pain or fever. Bacterial pathogen was identified from pericardial aspirate.

Effusion of some degree appears to be invariable with this specific pericarditis and commonly results in cardiac tamponade with reported incidence of 62 percent. M-mode echocardiography is most useful since it represents the best noninvasive diagnostic tool easily applied that assesses the presence and severity of pericardial effusion. Treatment consists of administration of an appropriate antibiotic, usually penicillin, and open surgical drainage for cardiac tamponade.

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Angiography in Brain Death

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The current criteria for brain death require a minimum of 24 hours' observation. With the advent of transplant surgery, early and unequivocal diagnosis of brain death has assumed paramount importance. Angiographic nonfilling of intracranial arteries is now regarded as one of the absolute criteria for irreversible brain death.[1]

The usual angiographic findings in brain death are: nonfilling of the internal carotid arteries beyond the carotid siphon, and of the vertebral arteries at their confluence into the basilar artery. We report a case in which there was nonfilling of both internal carotid arteries and left vertebral artery beyond the midcervical region with no evidence of occlusion on autopsy.

Case report

A 30-year-old drug addict was hospitalized with sudden onset of bizarre behavior, numbness of the lower extremities, diplopia, and subsequent impairment of consciousness. His blood pressure was 150/80 mm. Hg, pulse 54 per minute, respiration 16 per minute, and temperature 37° C. He moved all extremities appropriately to noxious stimuli. The left pupil was 6 mm. in diameter with no reaction to light, and the right pupil was 3 mm., sluggishly reactive to light. The right fundus had indistinct disk margins. The oculocephalic and oculovestibular responses and the corneal reflexes were absent bilaterally. The deep tendon reflexes were brisk, and plantar responses were flexor. Within a few minutes of tracheal intubation, spontaneous respiration ceased and the patient became flaccid and unresponsive to noxious stimuli. Both pupils were dilated and fixed. The patient was maintained on respirator. Selective left and right carotid angiograms, via femoral catheter, showed nonfilling of the internal carotid arteries 3 cm. distal to their origin with tapering of the contrast column posteriorly while the external carotid arteries were normal (Fig. 1 A and B). The left vertebral arteriogram also showed complete nonfilling at about the same level (Fig. 1C). A right vertebral injection was not done because of falling blood pressure. An EEG (electroencephalogram) showed an isoelectric record. Subsequently, the standard criteria for cerebral death including a flat EEG 24 hours later were fulfilled. His kidneys were used for transplantation.

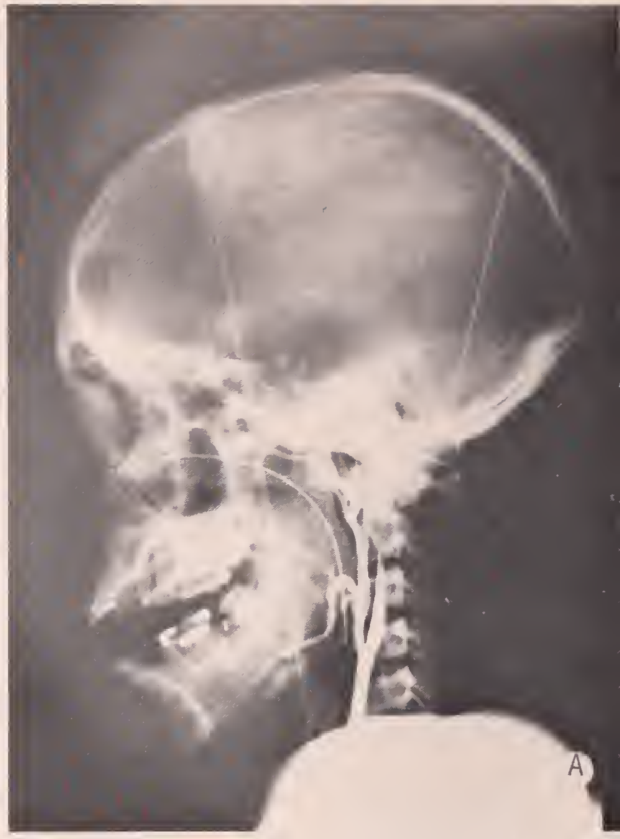


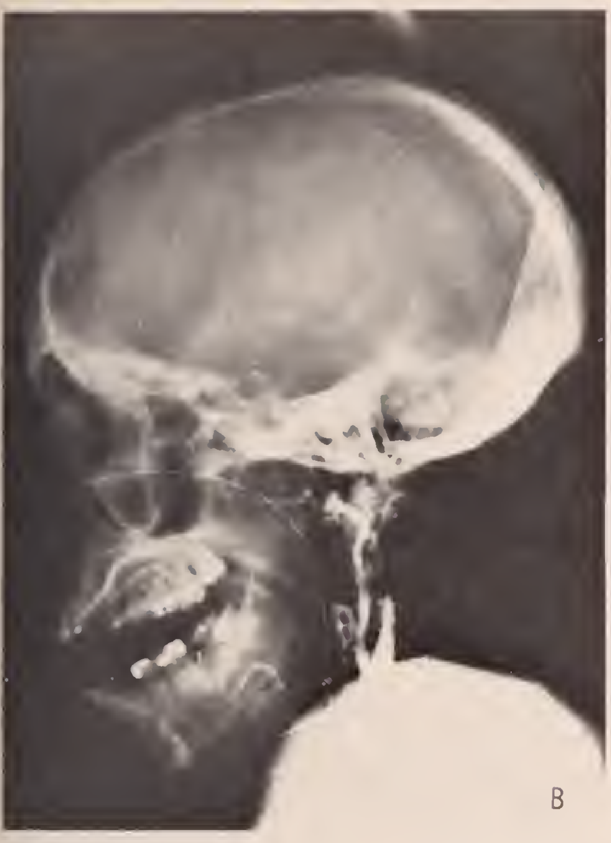
FIGURE 1. Angiograms. (A) Selective right carotid. Nonfilling of internal carotid artery beyond midcervical region with tapering of contrast column. Right external carotid artery filled normally. (B) Selective left carotid. Nonfilling of internal carotid artery beyond midcervical region. Left external carotid artery filled normally. (C) Left vertebral. Nonfilling of left vertebral artery beyond cervical region.

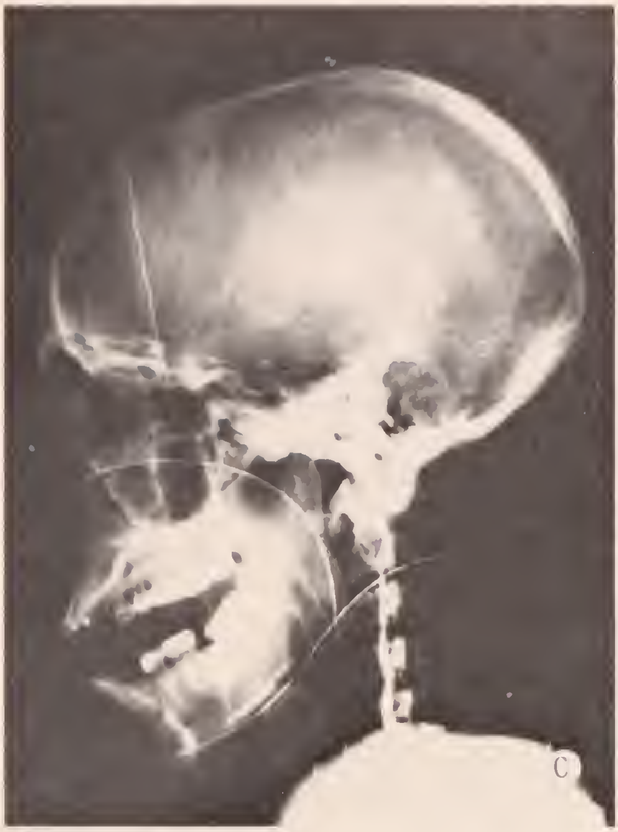
An autopsy disclosed a massive left thalamic hemorrhage with rupture into the ventricles and blood in the basal cisterns. The carotid and vertebral arteries showed no occlusions.

Comment

Circulatory arrest in the brain occurs when the cerebral perfusion pressure decreases to zero as a result of progressive increase in the intracranial pressure until it reaches the level of the systemic arterial blood pressure.[2] All arteries subjected to increased intracranial pressure—internal carotid, vertebro-basilar, and middle meningeal arteries—are affected, while the external carotid arteries fill normally or even prematurely. It is uncertain whether cerebral death precedes or follows the arrest of cerebral blood flow.

Bucheler, Kaufer, and Dux[3] observed filling of the vertebrobasilar system in patients with arrest of contrast material in a carotid artery. Pribram[4] reported a case of subarachnoid hemorrhage in which a ventricular tap was followed by reperfusion confined to the larger vessels with no circulation in the smaller vessels and capillaries. Anatomic occlusions due to atherosclerosis or trauma, and nonfilling due to faulty angiographic techniques, may appear similar to those seen in arrested circulation due to in-





creased intracranial pressure. Although these mostly involve carotid arteries and usually occur unilaterally, they nevertheless remain a potential source of error. Aortic arch angiography or selective internal carotid and vertebral arteriographies on two separate occasions, 30 minutes apart, have been recommended to avoid the aforementioned errors.[5] This procedure is considered sufficiently sensitive to disclose even minimal cerebral blood flow. However, after contrast injection, the film series must extend for more than 30 seconds to help rule out slow flow from elevated intracranial pressure in a viable patient.

In the present case, the nonfilling of both internal carotid arteries and left vertebral artery was seen at the midcervical region, but on autopsy, no structural lesions were found in the appropriate areas, proving that this represents "pseudo-occlusion." As dense contrast tries to enter a closed system, it cannot rise unless the blood already present is expelled. Thus, the contrast slants inward along the base allowing nonopacified blood to flow out above it. The slanting face, coupled with the round vessel cross-section, creates a tapering.

In a recent study, demonstration of absent cerebral blood flow as a confirmatory test of brain death has been recommended in cases in which the standard criteria cannot be applied because of sedative drugs in the blood or the inability to examine extraocular movements.[6] Although more than half of the 503 patients had intracranial conditions that might have been accurately diagnosed by either radiopaque or radionuclear type angiography, only 17 such procedures (6 percent of the cases) were carried out, indicating the widespread reluctance on the part of physicians in the United States to subject these patients to an invasive technique.[6] However, an early diagnosis of cerebral death is essential in prospective organ donors, where delay in pronouncing death would jeopardize a successful transplant. In such cases, unnecessary delay can be avoided by prompt angiographic demonstration of absence of cerebral blood flow. The nonfilling of arteries at the base of the brain in cerebral death is well known. We want to emphasize the importance of recognizing the nonfilling of the internal carotid and vertebral arteries in the midcervical region as an equally valid unequivocal criterion of cerebral death.

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Pelger-Huët Anomaly

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In Pelger-Huët anomaly, the nuclei of the polymorphonuclear cells show an abnormal appearance due to arrest in segmentation. The abnormality consists of incomplete segmentation of the nuclei that is most noticeable in the neutrophils, giving them the typical "pince-nez" or spectacle-shaped nuclei. In addition, the chromatin appears more dense. In 1928, Pelger detected this abnormality of the polymorphonuclear cells in two patients suffering from tuberculosis. He originally associated this abnormal finding with the infection and thought that it indicated a poor prognosis.[1] Huet discovered this anomaly of the polymorphonuclear cells in a relative of one of Pelger's patients three year later and correctly attributed it to an autosomal dominant trait.[2]

Our purpose is to report two cases of Pelger-Huët anomaly that we have encountered recently in our pediatric practice. These children presented cellulitis of the left foot and upper respiratory tract infection. On peripheral blood smear the diagnosis was suspected. We also like to point out that the peripheral blood smear could be very confusing to the clinicians. In this report, we discuss briefly the genetic transmission of this disorder and also emphasize that these polymorphonuclear cells are functionally normal.

Case reports

Case 1. A three-year-old black male was admitted with two days' history of fever and erythematous, tender, and swollen left foot. There was a history of an insect bite over the swollen area. In the past history, nothing was significant. On admission, the mother denied any family history of blood disorder. Physical examination revealed a well-developed, well-nourished young boy in the 75th percentile for height and weight. His vital signs were as follows: heart rate 88 per minute, respiratory rate 24 per minute, blood pressure 100/60 mm. Hg, and temperature 38°C.

Findings on examination of the head, ears, eyes, nose, and throat were normal. Both lungs were clear to auscultation and percussion. The abdomen was soft and nontender. No abnormal mass or hepatosplenomegaly was noted. Findings on cardiovascular examination were normal. His left foot was swollen over the dorsolateral surface; it was warm, erythematous, and tender. A small ulcer was noted at the center of the swelling.

His hospital course was uneventful. He was treated successfully with intravenous oxacillin. Complete blood count on admission was as follows: hemoglobin 11.9 Gm. per 100 ml., hematocrit 35; white blood cells, were 14,300 per cubic millimeter, with metamyelocytes 3, atypical polymorphonuclear cells 56, segmented polymorphonuclear cells 19, eosinophils 3, basophils 1, lymphocytes 10, and monocytes 8 percent. Platelet count was 645,000 per cubic millimeter. Because of the characteristic morphol-

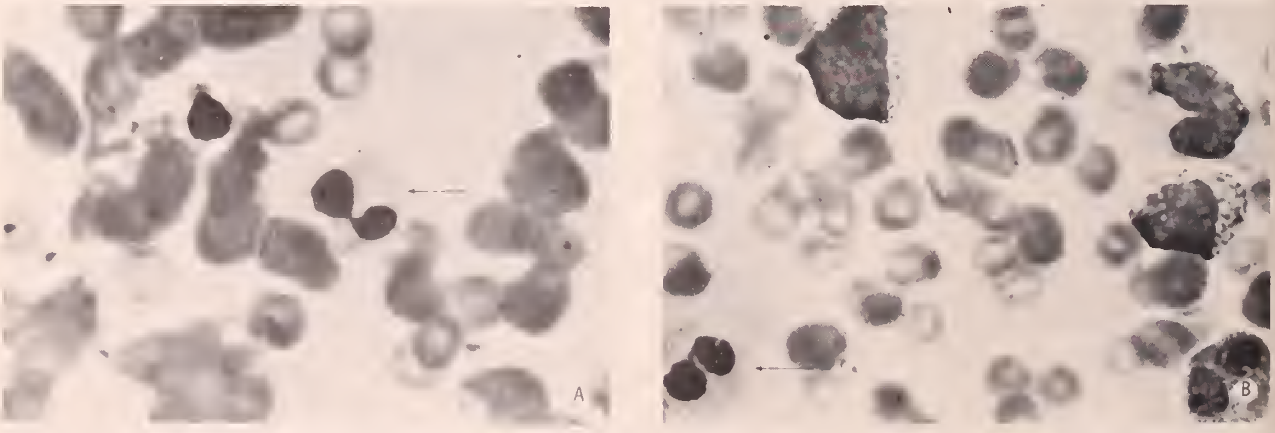

FIGURE 1. Case 1. (A) Peripheral blood smear showing promyelocyte, metamyelocyte, and eosinophil with pince-nez nucleus. Arrow shows Pelger-Huet neutrophil. (B) Father's peripheral blood smear showing Pelger-Huët anomaly at arrow.

ogy of the neutrophils, the possibility of the Pelger-Huët anomaly was raised (Fig. 1). The family history was sought. The natural father's peripheral blood smear also showed similar abnormal-looking polymorphonuclear cells (Fig. 1B).

Because of these atypical neutrophils and positive family history we did not feel that this patient needed bone marrow aspiration to rule out other blood disorders. On follow-up this youngster is doing very well. Laboratory values were as follows: hemoglobin electrophoresis, hemoglobin A_1 – 57.6, A_2 – 3, S – 38, and F – 1.5 percent; red blood cell folic acid 162 and serum folic acid 15.5 micrograms per milliliter. Complete blood count on day of discharge was as follows: hemoglobin 12 Gm. per 100 ml., hematocrit 35; and white blood cells 9,500 per cubic millimeter, with metamyelocytes 4 percent, Pelger-Huët cells 24, segmented polymorphonuclear cells 18, eosinophils 2, lymphocytes 46, monocytes 6 percent, and platelets 855,000 per cubic millimeter.

Case 2. A 10-month-old black male infant, not related to patient 1, was admitted to the hospital with a history of fever and upper respiratory tract infection for two weeks. The infant was treated symptomatically. Two days prior to admission he developed loose brown stools without blood or mucus. He was a product of a normal full-term pregnancy and delivery. His birth weight was 3,062 Gm. He was born with an extra digit next to his left thumb; this extra digit was resected at birth. His growth and development were normal. The family history was significant in the sense that the father is a known case of Pelger-Huët anomaly. One sibling died at three months of age with multiple congenital anomalies. The other four sibilings (two brothers and two sisters) are alive and well. Physical examination revealed a well-developed, well-nourished male in no acute distress. His vital signs were as follows: temperature 40°C., heart rate 120 per minute, respiratory rate 32 per minute, blood pressure 85/50 mm. Hg, weight 9,870 Gm., and height 70 cm. Except for evidence of upper respiratory tract infection and acute purulent right otitis media, the rest of the physical examination test results were normal. The diagnosis of Pelger-Huët anomaly was made on the initial complete blood count. It showed white blood cells 17,100 per cubic millimeter, red blood cells 3.59×10^6 per cubic millimeter, hemoglobin 10. 6 Gm. per 100 ml., hematocrit 29.2, metamyelocytes 1 percent and stab cells 50 percent (Pelger-Huët cells); segmented polymorphonuclear cells 10, lymphocytes 32, and monocytes 7 percent; platelets 617,000 per cubic millimeter, and stool culture showed no growth. The infant responded very well to ampicillin therapy and was discharged home.

Comment

Pelger-Huët anomaly is a morphologic, but not a functional, alteration of the granulocytes, innocuous in the heterozygous state. It is inherited as an autosomal dominant trait, believed by most investigators to have 100 percent penetrance.[3] The condition was initially found in rabbits by Undritz,[4] but extensive investigations were not carried out until Nachtsheim[5] mated two heterozygous rabbits in an attempt to produce homozygotes that lived longer, but all showed skeletal abnormalities described as a chondrodystrophy. Thus, it would appear that in rabbits the homozygous state is a potentially lethal factor. The blood picture of the homozygous rabbits also differed from the heterozygotes in that the polymorphonuclear cells' nuclei were round, not spectacle shaped, with very coarse chromatin structure. In 1952, Begeman and Campagne[6] reported the first case of a possible homozygous Pelger-Huët anomaly in man. Their patient was a two and one-half-year-old girl with epilepsy. In her blood smear, 94 percent of the neutrophils had round, unsegmented nuclei, and 6 percent had indented nuclei. Both parents proved to be Pelger-Huët heterozygotes; they were first cousins. Three siblings had died in infancy, and the mother had had two spontaneous abortions. The two living siblings had normal peripheral blood smears. Comparison of this child's blood with the blood smears of the homozygous rabbits of Undritz[4] showed such similarity that they concluded that they had found the first human homozygote.[6] The first criterion, heterozygosity, in both parents was satisfied. The second, all offspring of the proband possessing the trait, is obviously lacking. That child, if she is still alive, is now of child-bearing age, and follow-up study is a possibility. The only other probable homozygote was reported by Stabbe and Jorke in 1965.[7] They reported a male offspring of two heterozygotes, who produced only one child, a heterozygote for Pelger-Huët trait.[7] As he produced only one child, the numbers are insufficient to draw a firm conclusion. Their patient also had 100 percent round nuclei in the neutrophils. And so it is possible that the homozygous form of Pelger-Huët anomaly has been observed in smears and therefore is not lethal. The heterozygous form, though, is not uncommon. Nachtsheim[5] has established the incidence at 1:1,000 in Berlin, without race or sex difference. These aberrant bilobed nuclei present in mature neutrophils are often incorrectly reported as stabs, and it appears that earlier forms may be seen in the peripheral smear during infections. The first patient reported here was nearly subjected to a bone marrow aspiration until his father was located, and his peripheral blood smear showed a blood picture identical to his son. His father had sickle-cell trait which the son had inherited as well. These two young unrelated patients also had an increased number of platelets. To our knowledge increased platelet counts have not been reported in association with Pelger-Huët anomaly.

It is very important to establish an inherited basis for the Pelger-Huët anomaly because acquired or pseudo-Pelger-Huët cells resembling those found in the heterozygous state have been found in patients with acute and chronic myelogenous leukemia, organic myeloid metaplasia, Fanconi's anemia, infections, infectious mononucleosis, malaria, metastatic bone lesions, and after prolonged exposure to myelotoxic drugs.

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Significant improvement noted in American indians health care

Health care of American Indians has improved significantly in the past 25 years, though some problems remain, says a report in an American Medical Association publication.

Conventional health care has improved on the reservations, and modern Indian medicine men are rekindling interest in ancient healing practices deeply rooted in religion, says the September 25 issue of American Medical News, the AMA's weekly newspaper for physicians.

The paper's Impact Section lists some figures on Indian health to illustrate gains. In 1955 the tuberculosis rate among Indians was 563 cases per 100,000 population, while the rate for the U.S. as a whole was 60 cases. In 1978 the Indian tuberculosis rate had dropped to 62.8 cases per 100,000. This was a vast improvement, but still higher than the overall national rate of 13 cases.

In infant mortality statistics, the Indians have almost caught up with the nation as a whole. In 1956 Indian infants died at a rate of 58.5 per 1,000 live births, while the national figure for that year was 26. By 1977, Indian infant deaths had dropped to 16 per 1,000 live births, while the national figure was 14.

It was 25 years ago that the Indian Health Service became part of the U.S. Public Health Service, the paper points out.

The Indian Health Service now recruits between 125 and 130 young physicians each year from some 1,500 federal scholarship recipients who have completed their studies. Physician extenders also are important in Indian health care, including physician assistants, pharmacists, nurses, and nurses' aides.

To help physicians serving in remote areas get away for a few weeks for a vacation and refresher medical courses, the American Medical Association operates Project U.S.A. Project U.S.A. recruits physicians for short-term replacement assignments in both the Indian Health Service and the National Health Service Corps.

Among the Navajos of Arizona, white medicine is being blended with Indian medicine, particularly among the older Indians.

"Only a traditional sing can cure the whole person. White medicine is good for tuberculosis, pneumonia or infectious illness," explains Fred Stevens, Jr., a medicine man.

Each medicine man knows four or five chants or complicated myths based on Navajo history. The knowledge is passed from father to son or from grandparents to grandchildren.

"They can learn the value of taking a lot of time with their patients and of treating them with kindness and respect. To be effective here, an Anglo physician must learn to become aware of looking at healing, health, and illness in other ways than just his culture.

There still are shortages of trained personnel in Indian health care, and sometimes cultural and communications barriers to surmount, but the service has made great progress in the past 25 years, the AMA newspaper declares.

Posterior Urethral Obstruction Caused by Congenital Posterior Urethral Valve

Prenatal and postnatal ultrasound diagnosis

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The posterior urethral valves are the most common cause of urethral obstruction in male infants, although the incidence of this condition is relatively low.[1]

The obstruction of the urethra, with resulting distention of the urinary bladder, ureter, and renal pelvis, renders gray-scale ultrasonography an ideal tool for prenatal diagnosis of this condition.

A survey of the current literature reveals three cases of posterior urethral obstruction diagnosed before birth with gray-scale ultrasonography.[2,3]

The purpose of this presentation is to report a case of congenital posterior urethral valve, diagnosed in a fetus as posterior urethral obstruction. After birth the congenital posterior urethral valve was confirmed to be the cause of obstruction.

Case report

An 18-year-old, black primigravida underwent an ultrasound examination during the third trimester of pregnancy for estimation of gestation age, because she was uncertain about the date of her last menstrual period. She had had an emergency appendectomy during the first trimester of gestation; otherwise, the course of the pregnancy was unremarkable.

The ultrasound examination showed the fetal bi-

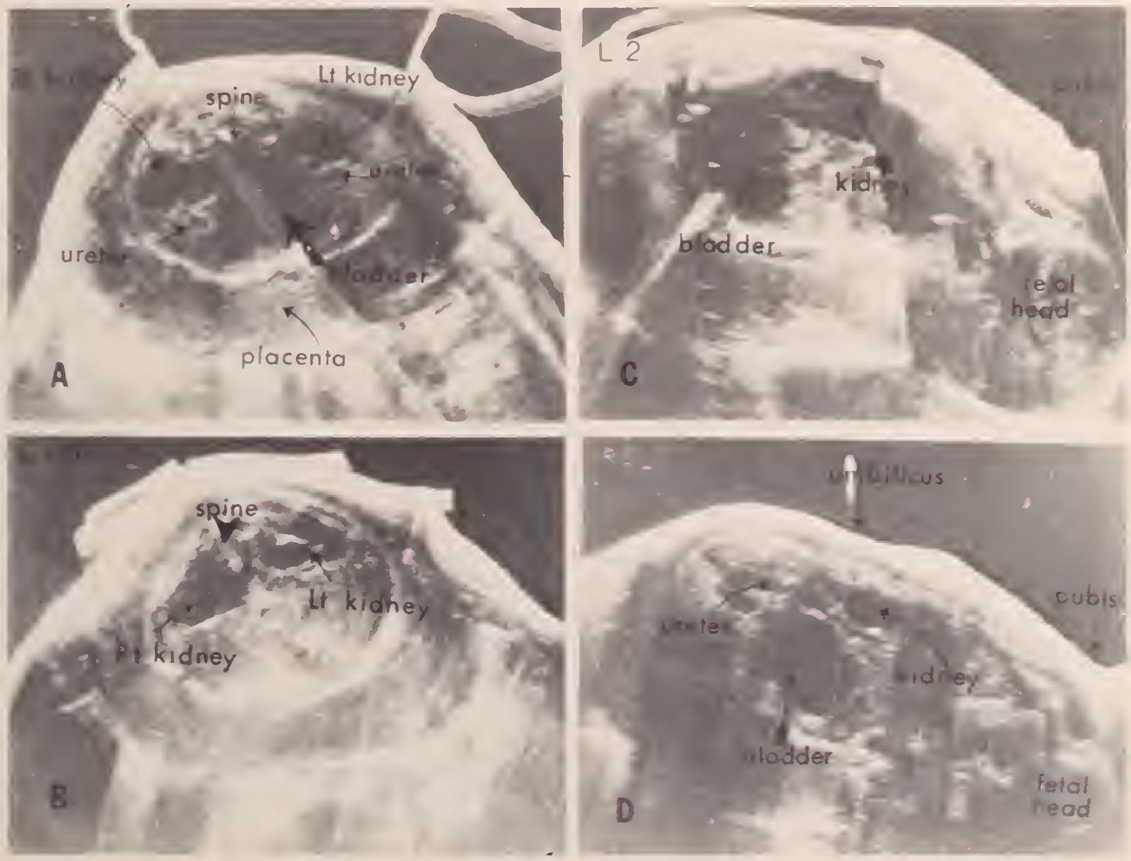

FIGURE 1. Prenatal sonogram of the fetus. (A) Transverse scanning of lower level of a fetus showing distended urinary bladder, hydronephrosis, and hydroureter bilaterally. (B) Transverse scanning of higher level of a fetus revealing bilateral hydronephrosis. (C) Longitudinal scanning along 2 cm. left and (D) 2 cm. right. Midsagittal line of the fetus again reveals bilateral hydronephrosis, hydroureter, and distended urinary bladder.

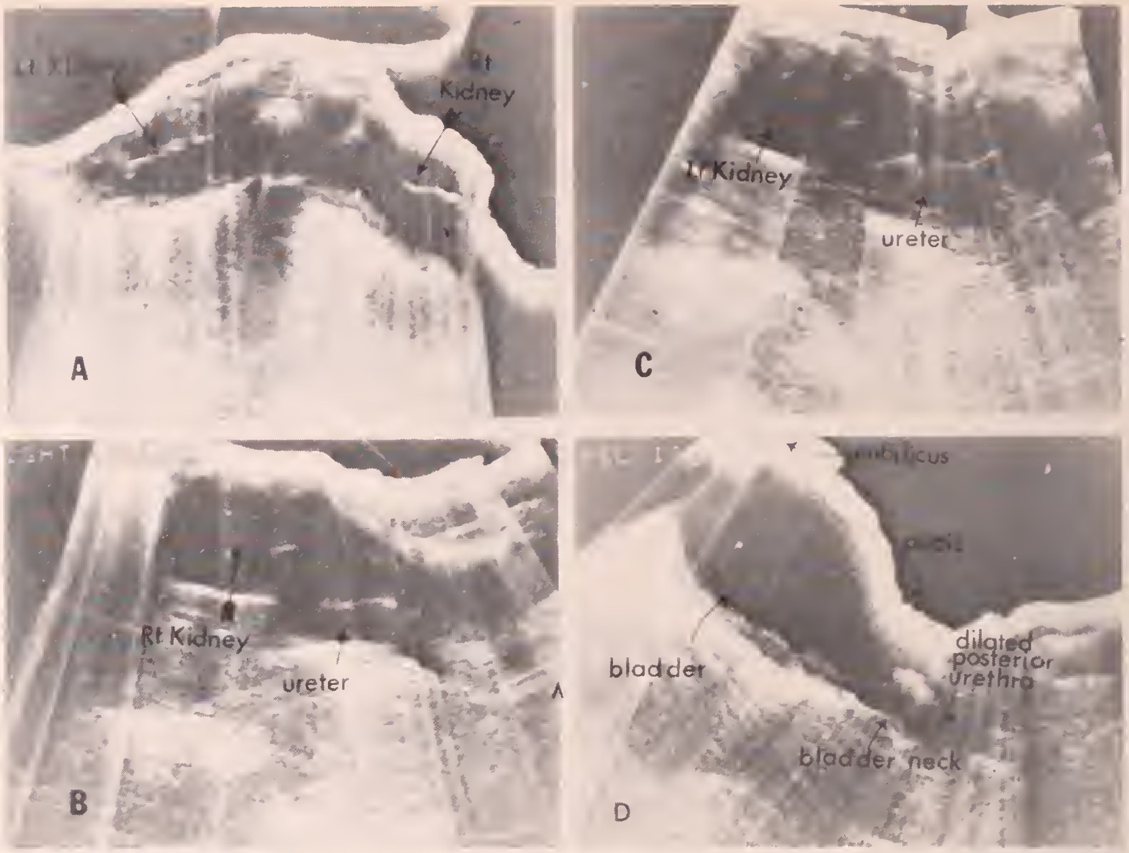

FIGURE 2. Postnatal contact scanning of infant in prone position, showing marked bilateral hydronephrosis and hydroureter. (A) Transverse scanning of the kidneys. (B) Longitudinal scanning of the right kidney. (C) Longitudinal scanning of left kidney. (D) Supine longitudinal scanning of pelvis along midsagittal line revealing dilated posterior urethra extending out from the neck of bladder, ending in pouch-like dilatation.

parietal diameter to be 8.3 cm., compatible with 34 weeks of gestation; the fetal urinary bladder was noted to be markedly distended. There was also marked bilateral hydronephrosis and megaureter (Fig. 1).

Four weeks later, following a normal labor, a 2,948-Gm. full-term male infant with mild abdominal distention was delivered vaginally. An immediate postnatal contact gray-scale sonographic examination with 5MHz 6-mm-diameter transducer confirmed the prenatal diagnosis of posterior urethral obstruction.

More significantly, in longitudinal scanning of the pelvis of the infant, a dilated posterior urethra was noted, extending out of the urinary bladder neck, ending in a blind pouch (Fig. 2).

A retrograde voiding cystourethrography demonstrated the characteristic pattern of distended urinary bladder and posterior urethra with a thin transverse defect below the verumontanum consistent with congenital posterior urethral valve, type I.[2] There was gross vesicoureteral reflux bilaterally (Fig. 3).

At urethral endoscopy, the valve leaflets were identified and fulgurated. The infant subsequently required a suprapubic cystotomy to insure bladder emptying.

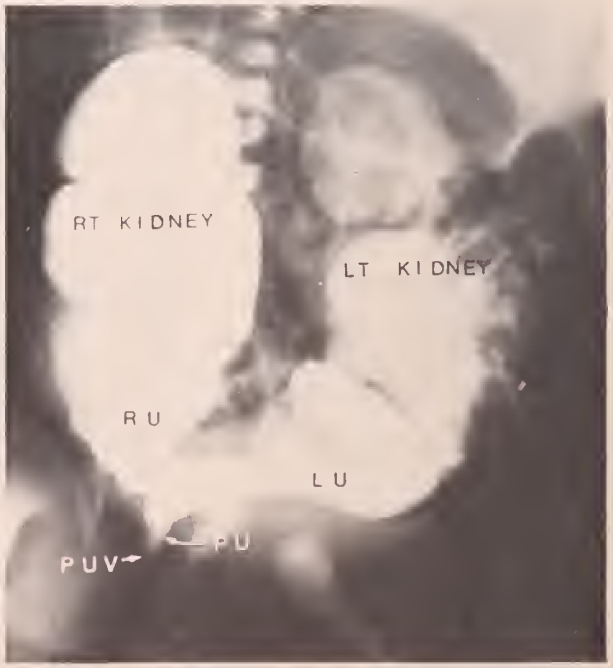

FIGURE 3. Retrograde voiding cystrourethrogram showing characteristic posterior urethral valve with distended posterior urethra. Note gross vesicourethral reflux demonstrating marked hydronephrosis and hydroureter bilaterally. RU= right ureter; LU= left ureter; PU= posterior urethra.

Comment

Since the advent of gray-scale ultrasonography, great advances have been made in imaging the intrauterine fetal structures, especially the pathologic changes of the urinary tract.[4,5]

Review of the literature reveals three prenatal cases of posterior urethral obstruction diagnosed prenatally by gray-scale ultrasonography.[2,3] However, to our knowledge, there is no reported case of any posterior urethral valve being diagnosed prior to birth. This is probably due to limitation of the ultrasonography in defining the fine structure of the urethra of the fetus.

Of the three cases reported, one was a case of prune-belly syndrome. In the remaining two cases, no cause of obstruction was discussed. All three cases showed a distended urinary bladder. The earliest demonstrable urinary bladder distention was at 20 weeks of gestation.[3]

In one fetus the urinary bladder distention was so severe that fetal urinary bladder puncture and drainage were necessary to facilitate delivery of the fetus.[2] One fetus showed bilateral hydronephrosis, hydroureter, and distended urinary bladder similar to the case presented herein.

In our case the definitive diagnosis of posterior urethral valve was made by postnatal voiding cystourethrogram. However, the findings on prenatal ultrasonography were very helpful in suggesting the condition and alerting the neonatologist to prepare for appropriate surgery.

This prevented valuable time loss and further renal damage.

In our case the findings of obstructive uropathy were apparent at 34 weeks of gestation. This condition could have been detected at an earlier date, since congenital posterior urethral valve may occur as early as the 50 to 100 mm. fetal size,[1] approximately during the third gestational month.

The postnatal ultrasonography in our case showed the capability of the gray-scale ultrasonography to demonstrate hydronephrosis and hydroureter and the characteristic dilatation of the posterior urethra comparable to that found on voiding cystourethrography. We therefore believe that gray-scale ultrasongraphy is not only an invaluable modality for screening and detection of intrauterine fetal obstructive uropathy, but also is an excellent diagnostic tool for the evaluation of congenital posterior urethral valve in the neonate.

Summary

Ultrasonography of a gravid uterus demonstrated fetal urinary bladder neck obstruction with bilateral obstructive uropathy. On postnatal ultrasonography a posterior urethral valve was suspected and confirmed by a retrograde voiding cystourethrogram. Therefore, there is indication that posterior urethral obstruction may be diagnosed by utilizing gray-scale ultrasonography not only on the neonate, but also in the prenatal period.

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Meningitis

Neisseria meningitidis, serogroup W-135

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Subtle changes in the prevalence of previously uncommon serotypes of *Neisseria meningitidis* may be occurring. Until now only nine scattered cases of infection due to *N. meningitidis* group W-135 have been reported in the literature;[1-3] six of these patients had documented meningitis. Other than these reports, little attention has been paid to this serotype.

Within a three-month period, three patients, two children and one adult, were admitted to the Harlem Hospital Center with *N. meningitidis* serogroup W-135 meningitis; a fourth child with this infection was seen in 1974. This clinical experience forms the substance of this article.

Materials and method

Each patient was admitted either to the adult or pediatric services of Harlem Hospital Center and seen by at least one of the authors.

Blood or CSF (cerebrospinal fluid) specimens were cultured on Mueller-Hinton agar, incubated for 24 hours at 35°C. under increased CO_2 (carbon dioxide) (candle jar). All isolates were identified as *N. meningitidis* by carbohydrate fermentation and then serotyped. Those strains that were nontypable by standard sera were submitted to the City of New York Department of Health where they were further identified as belonging to serogroup W-135.

Case reports

Case 1. A five-month-old girl was seen after a two-day history of fever, rhinorrhea, and irritability. When admitted in December, 1978, she was somnolent with a temperature of 38.5°C. a heart rate of 120 per minute, and a respiratory rate of 42 per minute. A lumbar puncture was performed; CSF was turbid with 44 WBCs (white blood cells) (all neutrophils), protein 163 mg., glucose 18 mg., with a simultaneous blood glucose of 84 mg. per deciliter. Gram-negative diplococci were seen in the CSF smear, and the culture grew *N. meningitidis* group W-135. Blood culture was bacteria-sterile, and pharyngeal cultures of all family members were negative for *N. meningitidis.* She was initially treated with ampicillin, 400 mg., and chloramphenicol, 100 mg. per kilogram per day intravenously, which was changed to penicillin G, 100,000 units per kilograms per day for a total of 14 days, and was discharged after an uneventful hospital course.

Case 2. A four-year-old boy was transferred to Harlem Hospital after three days of fever, lethargy, and vomiting. Examination on admission, in January, 1979, revealed an acutely ill, lethargic boy with a temperature of 40.2°C., a heart rate of 100 per minute, a respiratory rate of 28 per minute, and a blood pressure of 108/70 mm. Hg. There was nuchal rigidity, with positive Kernig and Brudzinski reflex findings. Few petechiae over the right shoulder and periorbital areas were also noted. The WBC count was 20,900 per cubic millimeter, with 70 percent neutrophils, 10 percent bands, 18 percent lymphocytes, and 2 percent monocytes. The hematocrit was 28, prothrombin time 18.4 seconds (control 11.4), and platelets adequate on smear. A lumbar puncture revealed 200 WBCs and many RBCs (red blood cells) (no differential WBC count recorded), protein 325 mg. and glucose 114 mg. per deciliter, and gram-negative diplococci on smear. CSF culture grew *N. meningitidis* group W-135, and a blood culture was bacteria-sterile. The patient was treated with ampicillin, 400 mg., and chloramphenicol, 100 mg. per kilogram, intravenously, and recovered uneventfully.

Case 3. A 63-year-old black woman was in apparent good health until four days prior to her admission in March, 1979, when she developed malaise, myalgias, arthralgias, and anorexia. Two days prior to admission she complained of headache and was noted to vomit on one occasion. The day before admission the patient became confused and disoriented. The patient's husband had experienced a "viral-like illness" from which he had recovered 10 days earlier.

On admission, physical examination revealed an agitated, well-developed woman who appeared younger than her stated age. The temperature was 35.5°C., pulse 107 per minute, respiratory rate 20 per minute, and the blood pressure 120/80 mm. Hg. Positive physical findings included: marked nuchal rigidity, disorientation to person and place, and coarse tremors in both lower extremities. The initial lumbar puncture was traumatic, and an opening pressure could not be recorded. Examination of the CSF revealed 6,615 RBCs with 3 WBCs per cubic millimeter, all lymphocytes, a glucose of 5 mg. and protein of 1,200 mg. per deciliter. A Gram-stained specimen of the CSF revealed gram-negative cocci in pairs, and culture subsequently grew *N. meningitidis* serogroup W-135. Blood cultures were bacteria-negative. Pharyngeal cultures from the patient's son grew *N. meningitidis* serogroup W-135 without evidence of clinical illness. Pharyngeal culture from the patient's husband was bacteria-negative.

The patient was started on intravenous penicillin, 2 million units every two hours, and chloramphenicol, 1 Gm. every six hours intravenously, pending the return of culture results. The chloramphenicol was subsequently discontinued.

The clinical course was marked by numerous complications. On the third hospital day, ecchymotic areas on both upper extremities and petechiae scattered over the trunk and extremities were noted. The prothrombin time was 13.6 seconds, with a control of 11.3 seconds; the partial thromboplastin time was 48.5 seconds with control of 28.1 seconds. Effusions of the knees and ankles appeared which, on arthrocentesis, revealed cloudy fluid with 50,000 WBCs per cubic millimeter, of which 80 percent were neutrophils and 20 percent lymphocytes. Gram stain and culture of the effusion were bacteria-negative. An echocardiogram revealed a small anterior pericardial effusion as well.

During the second week, the patient's mental status appeared to fluctuate, with periods of alertness and responsiveness alternating with periods of obtundation. The serum sodium fell to 114 mEq. per liter on the eleventh hospital day. The serum osmolarity was 268 mOsm. per liter; the urine osmolarity was 449 mOsm. per liter, and a diagnosis of inappropriate antidiuretic hormone syndrome was made. The patient remained febrile until the twenty-first hospital day when antibiotic therapy was discontinued. Her fever then promptly disappeared, and she subsequently remained well.

Case 4. A five-week-old male infant was seen after a three-day history of fever, irritability, and swelling and redness of left ankle. On admission in April, 1974, he was irritable, crying excessively, and holding his left leg in a flexed position. Rectal temperature was 38.5°C., and heart and respiratory rate 160 and 36 per minute, respectively. The left ankle was swollen, red, and tender with limitation of motion. The hematocrit was 29.5, the WBC count 12,700 per cubic millimeter, with 44 percent neutrophils, 4 percent stabs, 42 percent lymphocytes, and 10 percent monocytes; erythrocyte sedimentation rate (ESR) was 45 mm. per hour. He was treated initially with intravenous oxacillin, 200 mg. and kanamycin, 15 mg. per kilogram per day. Despite the medication, the infant remained febrile. On the sixth hospital day, a lumbar puncture revealed a turbid fluid with 111 WBCs (86 polymorphonuclear leukocytes and 14 lymphocytes, and 1,395 RBCs per cubic millimeter), glucose 22 mg., and protein 225 mg. per deciliter. Culture of the CSF was bacteria-sterile. The blood culture taken on admission grew gram-negative diplococci later identified as *N. meningitidis* serogroup W-135. He responded to intravenous ampicillin and was discharged in good clinical condition.

Comment

Efforts on the part of several investigators to develop a vaccine against *N. meningitidis* to protect new army recruits from meningococcal meningitis necessitated careful monitoring of the epidemiologic element of this disease.[4,5] As part of this effort, the armed forces established a surveillance mechanism to determine the serogroup of all stains isolated from army personnel. In the course of this work, Evans, Artenstein, and Hunter[4] identified three new serogroups: BO, 29E, and W-135. Subsequent biochemical studies have shown that type BO is antigenically and biochemically identical to group Y.[6] It has also been shown that groups Y and W-135 are structurally different from each other and from groups A, B, C, and X. The capsular polysaccharide of these two strains differs by virtue of a D-galactopyranose residue on the capsule of serogroup W-135, which is replaced by a D-glucopyranose residue at the same location on the capsule of serogroup Y. By similar means, it has been shown that the capsular polysaccharides of serogroups 29E and Z are structurally unique from the other meningococci. In summary, the *N. meningitidis* may not be subdivided into serogroups X, Y, Z, 29E, and W-135 in addition to the classical groups A, B, C, and D.

The original studies listed a total of six cases of serogroup *N. meningitidis* W-135 infection, which were not described further than to indicate that the organism was cultured from either blood or CSF.[4,5] Individual survival data were not given. Since these original reports nine case reports have been published in the pediatric literature.[1,3] The 4 cases included in this report bring to 13 the number of patients for whom clinical information has been published (Table 1). From this still-limited sample, several comments can be offered. Despite this paucity of cases, a wide spectrum of organ-system involvement has been described. Besides the 10 episodes of meningitis set forth here, three of the patients reported previously have had pneumonia,

TABLE I. Reported infections due to *N. meningitidis* serogroup W-135

Author and Reference	Age (Case Number)	Sex	Isolation of Organism	Spectrum of Disease
Hammerschlag and Baltimore[1]	4 months	M	Blood	Pneumonitis
Hammerschlag and Baltimore[1]	8 months	M	Blood	Otitis
Hammerschlag and Baltimore[1]	11 months	M	Joint fluid	Septic arthritis
Kim et al.[2]	20 months	M	CSF	Meningitis
Griffis and Brandt[3]	$4\frac{1}{2}$ years	M	CSF, NP[*]	Meningitis
Griffis and Brandt[3]	$1\frac{1}{4}$ years	F	CSF	Meningitis
Griffis and Brandt[3]	23 years	M	Blood	Meningitis
Griffis and Brandt[3]	19 years	M	CSF	Meningitis, DIC[†]
Griffis and Brandt[3]	20 years	M	Blood	Meningitis, DIC[†]
This report	5 weeks (4)	M	Blood	Septic arthritis, meningitis
This report	5 months (1)	F	CSF	Meningitis
This report	4 years (2)	M	CSF	Meningitis
This report	63 years (3)	F	CSF	Meningitis, DIC[†], pericarditis, arthritis

[*] N.P. = Nasopharynx.

[†] D.I.C. = Disseminated intravascular coagulation.

otitis media, and septic arthritis as the major manifestation of infection. Each of these latter cases represents uncommon sites of infection for disease caused by the other meningococcal serogroups.

The adult patient reported here presents a most complex picture. At the time of admission she had proved meningitis. She subsequently developed arthritis, pleuritis, and pericarditis. Such a profusion of organ-system involvement may be explained in one of several ways: (1) serum sickness secondary to her penicillin therapy is a possibility, but seems unlikely since the arthritis began on the third day and persisted well after the termination of antibiotic therapy, (2) the possibility does exist that each of these problems may have been the result of sepsis alone, although organisms were neither seen on Gram stain nor grown from any site other than the CSF, and (3) these manifestations could be the result of an antigen-antibody complex reaction. No information is available with regard to preexisting specific or cross-reacting antibodies to serogroup W-135. The current studies do not help in this regard.

The last aspect of these cases is the relevance of serogroup W-135 to the overall epidemiology of meningococcal disease. During this century, infections due to serogroup A have become unusual in the United States; the predominant isolates belonged to group B. Then in the mid 1960s a sudden dramatic shift from group B to group C occurred. At the same time, the emergence of sulfonamide-resistant strains was noted. These resistant strains rapidly became the majority so that by 1976 the Center for Disease Control, Atlanta, Georgia, reported a survey in which 75 percent of group C isolates were resistant to sulfonamides.[7] The same report indicated that group Y infections had become the third most common cause of meningococcal infection, especially in the military; group W-135 was not mentioned. A recent epidemiologic survey in Houston, Texas, did not reveal a single case of serogroup W-135.[8] In contrast to this experience, epidemiologic data obtained from the City of New York Department of Health indicate that there has been a trend toward an increased incidence of group W-135 isolates; this possibility is further suggested by the identification of four cases in our institution. It is too early to tell whether this is a local phenomenon or indicates the beginning of another general shift in the predominant serogroup as part of the natural evolution of this pathogen in the human population. However, this experience differs sharply from previous reports emanating from military surveillance programs that merely reflect the random occurrence of this serotype dispersed across the country.[3–5] This report presents the first series of patients reported from a single institution.

The isolation of the organism from the pharynx of one healthy family member out of the four tested in our series does indicate that group W-135 can persist in healthy carriers. All the strains of the serotype W-135 isolated in our institution were sensitive to sulfadiazine; however, a resistant strain has been reported recently.[3] It would therefore seem that the same prophylactic precautions must be taken with this serogroup as for the other meningococcal strains. Should group W-135 meningococcal infection prove to be both a virulent and common pathogen, then the reformulation of a meningococcal vaccine must be considered.

The youngest infant in this series was five weeks old; two other infants were under six months of age (Table I). Such a high incidence of susceptible young infants in this relatively small sample suggests the need to establish the prevalence of type-specific antibodies to this serogroup in the population at large.

Summary

Four cases of *Neisseria meningitidis* serogroup W-135 infection have been seen at Harlem Hospital Center; all had meningitis. In addition, one patient had septic arthritis and another had arthritis, pericarditis, and pleuritis. A review of all previously reported cases, as well as this report, indicates that this serogroup may have an unusually high incidence of bacteremia and systemic organ-system involve-

ment. The sudden appearance of multiple cases of an heretofore rare strain of meningococcus raises important questions concerning the epidemiology of this disease.

Acknowledgment. The authors wish to thank Samuel Shaefler, Ph.D., Public Health Laboratory of the City of New York, for performing the serogroup identification of the reported strains.

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Medicaid physicians found honest and conscientious

There is no evidence that most large Medicaid practices are actually the "Medicaid Mills" that some consumerists have charged, says a report in the November 28 Journal of the American Medical Association.

There have been a few reported cases of fraud and improper care of patients in groups treating large numbers of poor patients whose bills are paid by the Medicaid program, but these are definitely in the minority, says Janet B. Mitchell, Ph.D., of the Center for Health Economics Research, Chestnut Hill, Mass., and Boston University Medical Center.

Nearly 60 percent of all Medicaid patients receive their care in a relatively few medical group practice situations. These have sometimes been criticized as fraudulent, but there is no evidence that this charge can be sustained on a national basis, Dr. Mitchell says.

Patient visit lengths are shorter in the large Medicaid practices, but by only some two minutes, for instance.

The Boston Study found no indication that there is widespread abuse of ancillary services (such as ordering unnecessary tests), skimping on auxiliary staff, or excessive incomes. The average income of physicians in the Medicaid groups actually is less than that of physicians as a whole, she says.

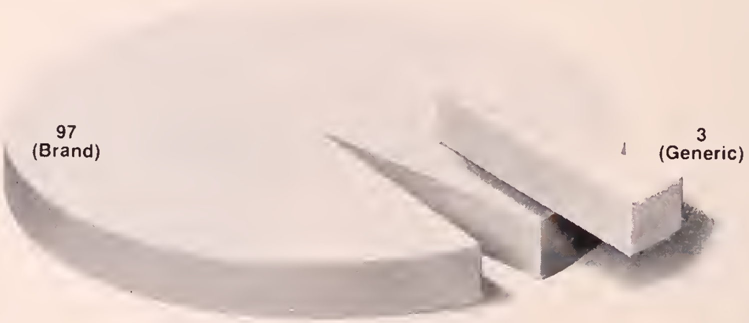
Background and training of physicians in the large Medicaid practice situations are substantially different from other physicians, however. They tend to be older and less specialized and have fewer credentials (less often board certified). A much higher percentage are trained in foreign medical schools.

"It seems that the Medicaid program and its beneficiaries constitute a secondary, residual market, subordinate to the better-paying primary market. More highly trained physicians face greater demand for their services and are able to see private patients who are willing to pay higher fees."

A primary goal of the Medicaid program, to integrate the poor into mainstream medicine, is thwarted, Dr. Mitchell declares.

Medicaid fees should be raised to become more competitive with other insurers, and payment delays should be reduced to enable more physicians to treat more Medicaid patients, she says.

Is there a generic equivalent for drug research?



Estimated Drug Industry Investment in R&D*

Frankly, the dollars say no.

By the most generous estimates, generic manufacturers contribute barely 3% of the more than one billion dollars spent annually in the laboratories of American drug firms on research and development of new drugs.

For the last quarter of a century, virtually all of the major new drugs that imitators imitate have originated with a handful of research-oriented firms well known to all.

While our national investment in research has been declining steadily for a decade, the American pharmaceutical industry has actually been increasing its commitment, so that it now spends over five times the national average. No other industry dedicates a higher percentage of its profits to research. No industry in America depends less on government subsidies.

In the last two decades, the cost of introducing a significant new drug has risen from roughly $4,000,000 to over $50,000,000, while its effective patent life has eroded from seventeen years to less than ten.

Today, the entire research and development commitment of ALL generic manufacturers combined is not enough to develop one single new drug entity.

When you prescribe generics, you switch profits from the innovators to the imitators... and R&D rarely appears on the imitators' budget sheets. Meanwhile, there are *real* people who may have to suffer and perhaps die needlessly if the incentives to progress are removed. It would be sad to abandon our commitment to the future in the short-sighted search for a bargain.

*Based on 1977 published figures available from National Science Foundation and/or Pharmaceutical Manufacturers Association

ROCHE ®

Without the innovators, there could be no imitators

Drinking and Pregnancy

Preventing fetal alcohol syndrome

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"**Warning: alcohol may be dangerous** to your unborn baby." This message will be confronting New Yorkers on radio, television, pamphlets, and posters in the months to come, as part of a State-wide effort to prevent FAS (fetal alcohol syndrome) and other alcohol-related birth defects. Nation-wide, FAS is thought to be the third most frequent cause of mental retardation, due to birth defect following in incidence Down's syndrome and spina bifida. Of these, only FAS is preventable.[1] It has been estimated that infants born with alcohol-related birth defects in New York in only one year, 1978, will cost the State's economy at least $155 million in lifetime care.[2]

Because scientific interest in alcohol as a cause of damage to the fetus has been relatively recent, public attention to this important subject is a phenomenon of the late 1970s and the 1980s. From biblical times through the late nineteenth century alcohol was widely thought to have a detrimental effect on fetal development. Subsequently, however, ideas on the subject changed, and standard teaching in the 1940s and 1950s attributed the unfavorable outcome of pregnancy, often noted in frankly alcoholic women, to such other factors as faulty nutrition and hygiene. More recently, both increasing drug abuse and the treatment of heroin addiction with methadone focused attention on newborn infants of drug-dependent mothers, particularly those undergoing drug withdrawal after birth. There was, however, a curious lack of parallel concern for the infants of alcohol-addicted mothers. It was not until 1968 in France and 1972 in the United States that systematic descriptions of birth defects in offspring of alcoholic women appeared in the scientific literature. The clinical picture was named fetal alcohol syndrome by Jones and colleagues in 1973.[3]

Effects found

FAS consists of deficiencies in growth, in central nervous system development, and in formation of the midportion of the face. Also associated are a range of defects in other organ systems including the heart, joints, kidneys, and genitalia. The growth retardation begins in utero, and persists postnatally in most cases. The head size is well below average, and the eyes are also small. There may be mild to moderate mental retardation, poor coordination, irritability in infancy, and hyperactivity in childhood. The face, with short palpebral fissures, a small, upturned nose, flattened philtrum, thin upper lip, and poorly developed maxilla presents a characteristic appearance recognizable to the experienced diagnostician.[4] Other infants born to mothers reporting various levels of heavier alcohol use during pregnancy display a range of effects short of the full FAS, including smaller size and slower development. An increased risk of stillbirth and midpregnancy miscarriage has also been found. Statistical methods applied to the study of human populations and controlled animal experimentation have established that alcohol itself is the toxic agent, although in clinical situations the alcohol effect may be accompanied and exacerbated by deficient diet and the use of other drugs.[5]

Recent animal research has shown interference with the ability to learn in offspring of mothers who were fed alcohol at levels which did not produce obvious physical defects.[6] Human infants born to mothers who drank at moderate levels during pregnancy have been shown to differ in some behavior patterns from those born to abstinent women or infrequent drinkers.[7] Although the practical significance of these differences for later life is not yet known, the presence of an observable effect is important of itself.

The developing but incomplete state of current knowledge in this area places the physician in a difficult position in counseling pregnant patients. Although it is undoubtedly true that very heavy drinking, at a level of six drinks or more per day, represents a serious risk to the fetus, and it is quite probably true that infrequent light drinking, such as an occasional drink along with a meal, is not likely to be harmful, the broad area between becomes a problem. The question, how much is too much, in the average daily consumption, the pattern of drinking, and in relation to stage of pregnancy, remains unanswered.

State recommendations

The New York State Fetal Alcohol Syndrome Task Force, organized at the request of Gov. Hugh Carey in his 1979 State of the Health message, faced this

1. When you are depressed or nervous, do you find any of the following helpful to feel better or to relax?

	Very Helpful	Not Helpful	Never Tried
a. Smoking cigarettes	____	____	____
b. Working harder than usual at home or job	____	____	____
c. Taking a tranquilizer	____	____	____
d. Taking some other kind of pill or medication	____	____	____
e. Having a drink	____	____	____
f. Talking it over with friends or relatives	____	____	____

2. Think of the times you have been most depressed; at those times did you:	Yes	No
a. Lose or gain weight	___	___
b. Lose interest in things that usually interest you	___	___
c. Have spells when you couldn't seem to stop crying	___	___
d. Suffer from insomnia	___	___
3. Have you ever gone to a doctor, psychologist, social worker, counselor or clergyman for help with an emotional problem?	___	___

4. How many cigarettes a day do you smoke? Check one.

____More than 2 packs ____1-2 packs ____Less than 1 pack ____None

5. How often do you have a drink of wine, beer, or a beverage containing alcohol?

____3 or more times a day
____Twice a day
____Almost every day
____Once or twice a week
____Once or twice a month
____Less than once a month
____Never

6. a. If you drink wine, beer or beverages containing alcohol, how often do you have four or more drinks?

____Almost always ____Frequently ____Sometimes ____Never

b. If you drink wine, beer or beverages containing alcohol, how often do you have one or two?

____Almost always ____Frequently ____Sometimes ____Never

	Yes	No
7. Does your drinking sometimes lead to problems between you and your family, that is, wife, husband, children, parent or close relative?	___	___
8. During the past year, have close relatives or friends worried or complained about your drinking?	___	___
9. Has a friend or family member ever told you about things you said or did while you were drinking that you do not remember?	___	___
10. Have you, within the past year, started to drink alcohol and found it difficult to stop before becoming intoxicated?	___	___
11. Has your father or mother ever had problems with alcohol?	___	___

FIGURE 1. Health questionnaire. Answers to be checked.

question in the course of reviewing the scientific literature and recommended a course of action to inform New Yorkers about alcohol and the fetus. The task force decided to recommend that to be perfectly safe, women should abstain from alcohol during pregnancy. In this, the task force agreed with other public health agencies such as the National Institute on Alcohol Abuse and Alcoholism, the National Council on Alcoholism, the American Medical Society on Alcoholism, the Research Society on Alco-

The self-test may be photocopied for use as part of your routine evaluation for men as well as women. It is designed to be filled out by the patient in the waiting room. Alternatively the questionnaire may be administered by a staff member. Its purpose is to alert the physician to possible alcohol problems, and to the extent of self reported smoking and alcohol use. It may alert to the presence of emotional problems.

Use of the Questionnaire

Q. 1. An answer of "very helpful" on "c, d or e" should alert the physician to possible alcohol or drug dependence.

Q. 2 & 3. Any "yes" should alert the physician to possible emotional problems.

Q. 7-11. Any "yes" should alert the physician to possible alcohol problems.

Q. 4-6. Give an indication of cigarette and alcohol use. Although patients with alcohol problems may under-report their drinking--the recorded data may be of considerable help.

If the physician suspects or is sure that the patient has a drinking problem:

1. To establish a firm diagnosis, consult the NCA criteria for the diagnosis of alcoholism (enclosed in this kit).

2. When consultation or referral is appropriate, consult or refer to:

    a) a physician experienced in the treatment of alcoholism
    b) an alcoholism treatment facility
    c) your local council on alcoholism
    d) Alcoholics Anonymous: A.A. is listed in every telephone directory.

3. Refer family members and other concerned and interested persons close to the patient to:

    a) a physician experienced in the treatment of alcoholism
    b) an alcoholism treatment facility
    c) your local council on alcoholism
    d) Al Anon family groups including Alateen for young family members; These groups may be contacted through telephone listings for Al Anon or for Alcoholics Anonymous.

FIGURE 2. Instructions for use of alcohol and health self-test.

holism, and the March of Dimes. In delivering this message, however, the task force was careful not to imply that:

> Small amounts of alcohol can cause FAS;
> If a pregnant woman drinks at all it makes no difference how much;
> Once any particular month of pregnancy has passed it is "too late" to stop.

The materials developed stress the following.

> The more that alcohol is consumed, the greater the risk.
>
> Pregnant women who stop heavy drinking during pregnancy improve their chances of having a healthy infant.
>
> Not all women can give up drinking without assistance. Help is available for problem drinkers. The wish to bear a healthy child is the best motivation in the world to encourage a woman to obtain treatment for her alcohol problem.
>
> Attention to diet, exercise, general health, smoking, and other drug use is also important.
>
> The physician is the primary source of guidance and care in pregnancy.

A professional education program has preceded and is accompanying the public information campaign. Included is a simple self-test which can be administered in a physician's or a clinic waiting room (Fig. 1). It does not diagnose but can alert the physician to possible alcohol dependence, drug dependence, and emotional problems (Fig. 2). The Committee on Alcoholism of the Medical Society of the State of New York was instrumental in the design of this test, the guidelines for its use, and advice on referral of problem drinkers. A chart of the National Council on Alcoholism's criteria for the diagnosis of alcoholism and information on referral of children with FAS and adults with alcohol problems are part of the informative professional package, along with patient-education materials. The task force is attempting to identify sufficient resources to provide this package to every physician in New York.

Conclusion

The ultimate purpose of these preventive efforts is to plant awareness of FAS firmly in society's body of common knowledge. Just as the "man in the street" knows that eating a lot will cause a gain in weight, it should also be common knowledge that drinking during pregnancy can harm the fetus. This knowledge, combined with an effective system to diagnose and help women with drinking problems, will allow us to save both millions of dollars for the State's taxpayers and an uncountable toll in human suffering, through prevention of alcohol-related birth defects.

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Otolaryngologists seek new name

Quick, now. What is an otolaryngologist?

If your answer is: Huh? You have lots of company. Relatively few Americans could tell you promptly that an otolaryngologist is a medical doctor who specializes in problems of the ear, nose, and throat.

This lack of name recognition for their chosen profession is disturbing many of the 6,000 specialists themselves, and a movement is afoot to change the name to something more comprehensible to the public at large.

In the current issue of an American Medical Association specialty journal, Archives of Otolaryngology, three leading practitioners in the ear, nose, and throat field write editorials on the proposed name change.

Writes Paul H. Ward, M.D., of Los Angeles:

"Few know what an otolaryngologist does or even what the word means. Reputedly sophisticated radio and television commentators are rarely able to pronounce the term, and the name is frequently butchered on the local and national news casts." Dr. Ward would like a simpler name.

George A. Gates, M.D., of San Antonio, likes the name as it is.

"No matter that names ought to say what they mean, they often don't, writes Dr. Gates. "No name can possibly be comprehensive enough to include all the diverse groups of people who are called otolaryngologists and still be meaningful to the public."

Archives Editor Byron J. Bailey, M.D., of Galveston, Texas, points out that "The majority of the members of our specialty favor a name change, but there is no single, specific term that enjoys overwhelming popular support."

Anyone have a good, simple, explanatory name for a medical doctor who concentrates on the ear, nose, and throat? One caution: Few of them like to be known as ear, nose, and throat men."

Transferring Ownership of Medical Practice

How to avoid unfavorable tax results

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The tax consequences of the transfer of ownership of a medical practice can vary significantly depending on the design and structure of the transaction. Proper planning and care is essential if the most favorable tax results are to be achieved for all parties concerned.

Very often new professional employees are recruited into an ongoing practice with the promise and expectation that they will, on the expiration of a stated time period, be given the opportunity to acquire an ownership interest. It is quite common in the medical field for the mentioned trial period to be rather brief, such as one or two years; therefore, planning ahead on how to effect the changeover should commence soon after the ink is dry on the initial employment contract with the associate.

Scope of article

This article will review the various methods available to acquire stock in a P.C. (professional corporation), or alternatively to buy an interest in an unincorporated medical practice. It endeavors to provide both sides of the transaction, purchaser and seller, with some understanding of the initial tax consequences that can be expected, alert them to potential pitfalls where they may exist, and highlight alternative courses of action.

Acquiring ownership in P.C.

There are essentially three methods by which stock can be transferred to a new equity owner.

Gifting of stock interest. The P.C. can make a gift of the stock to the incoming stockholder without payment. If the existing shareholders expect to remain with the P.C. for a long period of time after the newcomer's admission, they might consider making such an arrangement; this naturally would induce a long-term commitment from the newcomer. If the shares are gifted, however, there is a possibility that the I.R.S. (Internal Revenue Service) would attempt to subject the newly admitted shareholder with ordinary income to the extent of the value of these shares. This will result in an additional tax payable by the new admittee, which would undoubtedly be quite onerous to pay. Unfortunately, the taxing authorities have substantial authoritative support for their position by way of court precedent. The fact that an employee-employer relationship was in existence between the new shareholder and the P.C. would set up a presumption that the shares were transferred as compensation for past services, and thus taxable to the new shareholder. This presumption would be hard to rebut successfully.

Effect of stock gift on P.C. On the other side of the transaction, the effect of a stock gift on the P.C. would be that it could avail itself of a corresponding deduction of the value of the stock transferred. If an appropriate tax mix of pension, benefits, and professional salaries were chosen for the P.C. it should, however, have little use for this deduction. Proper planning would have the P.C at nearly zero taxable income at all times, and the deduction of the value of the shares gifted would be superfluous.

Stock treated as gift among shareholders. In the alternative, the issuance of stock could potentially be treated as a gift by the existing stockholders to the new admittee. In this case, the existing stockholders could very well find themselves liable for a gift tax. A gift tax might not be due at this time because of the unified gift and estate-tax credit available to every individual, but it would interfere with their own estate-planning options sometime in the future. None of these results are particularly satisfactory, however pleasing the idea may be for the incoming physician to receive stock in a P.C. without paying for it directly.

Sale of shares by P.C.

Another method by which the incoming physician can obtain an equity interest is by having the P.C. sell shares to him. These would be shares that were authorized in the initial certificate of incorporation or at a later date by amendment to this certificate. These shares can be sold to the professional without resulting in taxable income either to the individual physician or to the professional corporation, since neither profit nor loss occurs when a corporation sells its own shares.

In a well-established active practice, in which a high value may be placed on the shares being transferred, a weighty obstacle will be encountered in paying for the equity interest. To facilitate the sale, a written subscription agreement could be entered into between the purchasing physician and the P.C., whereby the physician buying the shares would pay for them on an installment basis. One serious drawback to this method is that certain jurisdictions, New York State included, do not permit the shares to be issued, nor do they allow the subscribing shareholder to be accorded the status of shareholder until the shares are fully paid for. At this stage the formalities to the state authorities to include the subscribing physician as a shareholder in the P.C. will not have to be made. Not being a legal shareholder will inhibit this purchaser's rights to vote the shares, to receive dividends if they are declared, to inspect the books and records, and to participate in shareholder activities. However, in the interim, until the stock is fully paid for, the purchaser could certainly be treated unofficially as an owner, and receive an appropriate salary with concomitant benefits and pension and profit-sharing coverage.

Disadvantages to existing owners

A disadvantage to the physicians who are already shareholders, in the sale of stock by the P.C., is that although funds will be flowing into the corporation, they, personally, in the short run, can only receive these funds at ordinary income tax rates through dividends or increased salaries. Still another result in having the P.C. sell shares is the increase in the number of shares outstanding and a consequent watering down of their respective percentage stock ownerships.

Most popular route followed

In spite of the shortcomings of the previously mentioned approach of having the P.C. sell shares to an incoming physician, it is still the method most commonly used. The desirability of having a sale of stock without a current taxable occurrence is particularly pleasing to most professionals.

Sale of shares of P.C. by current stockholders

A third option in the transfer of a stock interest in a professional corporation would be to have the existing shareholders sell shares to the incoming physician; one or all of the existing shareholders could sell a portion or all of their respective shares to an associate physician. A transaction of this nature would result in a capital gain to the sellers to the extent that the sale price exceeded their basis for the stock. If the purchaser could not pay in full for the shares immediately, or arrange external financing, the seller might be favorably disposed to accept a promissory note and establish a payment schedule, with a fair rate of interest, for the purchaser to meet.

Advantages to both purchaser and seller

If the ownership interest is not paid for in full but rather is paid for piecemeal according to a promissory note, this could offer a distinct tax benefit to the selling physician. It opens the door to reporting the capital gain on the installment basis, as long as the payments in the year of sale do not exceed 30 percent of the contract price. In addition, if the transaction is arranged in this manner, the incoming physician succeeds to shareholder status immediately on closing of the sale, regardless of the sizable debt owed for the stock to the withdrawing physician.

Sale of assets rather than stock

In a majority of transactions involving the sale of a medical practice, assets, rather than stock, will be sold to the purchasing physician. In selling an unincorporated practice, assets must be sold to effect the changeover, since there is no existing stock. Additionally, if the practice is being operated as a one-professional P.C., the direct sale of assets, oftentimes, will be the only possible route to fulfill regulations of the State of New York Department of Education, Division of Professional Licensing. This department will not permit the purchaser to maintain the same corporation as the seller, if the end result to be accomplished is a termination of activity in the practice by the selling physician. As a consequence, here, too, the assets must be sold to the buyer if a sale of the practice is to be made. However, in a situation in which a senior physician plans to remain active in the P.C., although only to the extent of one day a week, for example, nothing would prohibit a sale of stock and the continuity of this professional corporation.

Which assets should be bought?

The group of assets that the purchaser would be interested to acquire would be those assets that are essential to the continuity of the practice and would include leasehold improvements, office and examination room furnishings, office and medical equipment, medical supplies and instruments, fixtures, real estate (but only if necessary to the continuity of the practice), library, patient records and files, and goodwill; the judicial council of the AMA has decreed that it is not ethical for a physician to sell his patients' records to another physician. In keeping with this ethical consideration, however, patient records can be transferred to the physician purchasing the assets of a medical practice with the consent of the patients. Assets that are not essential to the continuity of a practice generally should not be purchased since it will elevate the selling price with no particular advantage.

Why buy assets?

There are business as well as tax reasons for a purchasing physician to seriously consider purchasing the assets directly, and not the stock, if the seller operated as a P.C. The reasons are:

1. A new practitioner may feel that he wants to start out in practice with a simple entity, and although a P.C. offers numerous benefits and advantages, it unquestionably involves more paper work and similar complexities.

2. A P.C.'s stock may be more costly than the assets to buy, since there may be assets of the P.C. that the purchasing physician does not want or need to carry on the practice. The P.C. may have substantial accounts receivable from patients or third-party payers, and the buyer might be wise not to assume the responsibility of collection. Also there may be real estate owned by the P.C. that may not be essential for the buyer to utilize in the practice. Similarly, other assets may fall in the category of being unnecessary or undesirable, and purchase of the assets on a pick-and-choose basis does in fact make sense.

3. The purchasing physician may not want, or does not have, the financial resources to fund the P.C.'s pension or profit-sharing plans, and purchasing P.C. stock would necessarily mean a continued involvement with these retirement plans. Generally, the purchaser will be a younger professional who will have different financial needs and goals from the seller who had the plans personally designed for himself. It is logical to dissociate yourself from retirement plans that were not designed with your circumstances in mind. Additionally, there may have been prohibited transactions or accumulated funding deficiencies that may necessitate future large obligations on the part of the P.C. Purchasing the assets of either a P.C. or an unincorporated practice allows the purchaser to establish his own Keogh or corporate retirement plan with his own objectives in mind.

4. Buying the stock of a P.C. may involve a greater or more precarious investment risk than anticipated, if there proves to be unstated liabilities on the P.C.'s balance sheet or undisclosed contingent liabilities at the date of closing of the transaction. The concept of limited liability accorded the shareholder of a corporation does in fact offer protection. However, if the unstated or contingent liability problem should surface it may compromise the ability of the P.C. to remain a successful going concern, unless the new shareholder contributes additional sums into the corporation's coffers to meet these liabilities. Examples of these unstated or contingent liabilities might include malpractice suits against the selling physician, in which the P.C. is also named as a codefendant, claims by distributors of office supplies or equipment for unpaid bills, or landlords for unpaid rent, or quite typically a lawsuit by a party claiming injury by an employee of the P.C. in the course of corporate medical business.

There are protections to be taken to avoid risk. A properly drafted contract for the purchase of stock would provide certain protections for the purchaser of P.C. stock. A representation and guarantee should be solicited from the seller of the stock stating that the liabilities are fairly spelled out and that there are no known contingent liabilities. This will provide legal recourse against the seller if unstated or contingent liabilities do, in fact, crop up. Additionally, the fact that the purchase price is to be paid out over a period of time gives the purchaser a sense of assurance engendered by knowing that he is holding the seller's money.

A physician purchasing the assets of a P.C. or of an unincorporated medical practice would not have to be concerned with unrecorded liabilities listed on a balance sheet. However, there would have to be consideration given as to whether or not there are any judgments, liens, or security interests on the assets, or whether or not the assets may have been pledged as collateral. Utmost protection against the possibility of these encumbrances existing could be achieved by making a check of the county clerk's office in the county in which the practice is located, and where the seller resides, and in the office of the secretary of state. In addition, a written representation from the seller, stating that none of these encumbrances are in existence, should be secured.

5. Greatly improved flexibility in purchasing the assets of a P.C. or an unincorporated medical practice is possible, for a great degree of flexibility in allocating the contract price can be achieved. When the stock of a P.C. is purchased, the account books are maintained intact and the assets will continue to be depreciated at the old values and rates. However, when assets are purchased either from a P.C. or from an unincorporated medical practice, the purchase price will be allocated to each of the specific assets bought. In effect, the assets will be revalued from the way that they were recorded and carried on the seller's books, enabling greater deductions for depreciation and investment credit.

Effect of sale of assets on selling physician

The seller will to a large extent have to bear the burden for the purchaser's increased depreciation deductions and investment credit, owing to the interplay of several sections of the I.R.S. Code; these sections are 1245 and 1250 and pertain both to P.C.s and unincorporated practices. They provide that any profit made on the sale of business assets, to the extent that depreciation was taken on the particular assets, must be taxed as ordinary income and not as capital gain. As a consequence of this provision, sellers are generally placed in a less desirable position when larger sums are allocated to the depreciable assets. Sellers of stock do not have to contend with this "depreciation recapture" of previous years. Similarly, sellers who sell assets will have to pay back the I.R.S. investment credit, the exact amount depending on the particular circumstances, an event that would not take place had stock, instead of assets, of a P.C. been sold.

Categories of assets to be sold

The assets of a medical practice, whether it be operated as a P.C. or in unincorporated form, will fall into two categories, tangible and intangible assets, and then a third element denoted as a "covenant not to compete" enters into the picture to comprise the total sale price.

The tangible assets are such items as furniture and fixtures, office and medical equipment, leasehold improvements, and the like, and are all depreciable assets.

The second category of assets that the seller is disposing of to the purchaser is goodwill. Goodwill is an intangible asset that will be defined here as the value of a professional practice over and above the value of its tangible assets, and is that attribute that enables the professional person to have superior earning power. Unlike the tangible assets, goodwill cannot be written off or depreciated as an expense for tax purposes. Once paid for, it remains dormant in the ledger.

Purchaser versus seller: allocation of sale price

The stage is now set for a potential tug of war between the parties. The purchaser would be well advised to insist that a large portion of the sale price be apportioned to the tangible assets, rather than to goodwill, so that he may avail himself of depreciation and investment credit on the assets. Depreciation and investment credit will serve to shelter the income that will be generated by the practice. The seller, on the other hand, may suffer a detriment in having a large allocation of the contract sale price being made to the tangible assets because of previously mentioned sections 1245 and 1250 of the I.R.S. code. These provisions of the tax law have the effect of changing into ordinary income what might be taxed as a capital gain.

The I.R.S., in most cases, will insist on an apportionment of the sale price to goodwill, especially if the assets are sold to an associate physician who had been working with the practice before the sale and who can be expected to retain most of the patients.

"Covenants not to compete"

A covenant not to compete should be part and parcel of every contract for the sale of assets, and was mentioned earlier as being the third element comprising the total contract price. Simply stated, it is a promise elicited from the seller that he will not engage in professional practice for a stipulated time period and within a designated geographic area. It is insurance for the purchasing physician that the seller will not reopen a practice in a nearby area and reclaim former patients to the detriment of the purchasing physician. Generally, for the covenant not to compete to be legally effective, it cannot be unreasonably restrictive. For example, a covenant not to practice medicine for a five-year period anywhere in the United States would be unduly restrictive and contrary to public policy, whereas one restricting the practice of medicine within the city of New York for this same period probably would be enforceable. An apportionment in the contract of the sale price to this covenant not to compete can and should be made.

Purchaser and seller at odds again

The parties to the transaction may very well find themselves at odds in allocating a portion of the sale price to the covenant not to compete. A knowledgeable buyer will attempt to allocate a liberal sum to the covenant since it will be deductible by him against his earnings over the stipulated number of years that the seller is prohibited from practice. On the other side of the transaction the seller will find that he must include as ordinary income these sums earmarked as arising from the covenant not to compete, as opposed to the capital gain that he would otherwise report from the majority of the transaction.

Other features of covenant not to compete

The seller's estate could potentially be deprived of the unpaid sum related to the covenant not to compete if the selling physician should die before the entire sum allocable to the covenant is paid in full. Since the covenant is essentially a personal promise made by the individual, the death of the seller would serve to release the buyer from making continuing payments based on this promise. The death of the seller would have no bearing on the payments under the contract allocable to the tangible assets or goodwill, and these payments would be due to the deceased's estate.

It is possible to draft the contract of sale in such a manner so as not to place at risk the sums apportioned to the covenant in case of death of the seller. However, by so doing, we would be changing the very nature of the covenant, and then the I.R.S. would be on firm ground to declare the deduction taken by the buyer as being not allowable.

Arriving at sum for covenant

The sum allocable to the covenant not to compete is essentially a feature of the relative bargaining power between the purchaser and the seller, just as the total sale price for a medical practice to a large extent is a product of supply and demand. A purchaser may feel that he has paid "top dollar" for the practice and may insist on a sizable apportionment to the covenant to recoup some of his payments through tax savings.

Generally, the I.R.S. will leave the allocations to tangible assets, goodwill, and covenant not to compete untouched, as long as the agreement was between two unrelated parties, their intent was clear, and the apportionments were within relevant ranges, given the circumstances. The I.R.S. does not want to put itself in the position of having to reform contracts bargained at arms length between the parties.

Comment

The intended purpose of this article was to fulfill a need to acquaint physicians with the tax consequences to be faced in the sale and transfer of an interest in a medical practice; this need to know has been exhibited very clearly in my experience with physician clients. An admonition that must be given, however, is that tax-aware legal counsel must be retained to attend to the nuances of any transfer of ownership in a medical practice, lest the results be potentially disastrous.

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ARNING: Because of the potential hazard of nephro-icity and ototoxicity due to neomycin, care should be ercised when using this product in treating extensive rns trophic ulceration and other extensive conditions ere absorption of neomycin is possible. In burns ere more than 20 percent of the body surface is ected, especially if the patient has impaired renal nction or is receiving other aminoglycoside anti-otics concurrently, not more than one application a is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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Obituaries

John Joseph Abbott, M.D., of Flushing and Elmhurst, died on August 3 at the age of 69. Dr. Abbott graduated in 1936 from Long Island College of Medicine. He was an attending surgeon at St. John's Queens Hospital. Dr. Abbott was a Fellow of the International College of Surgeons and a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Leonard G. Breslow, M.D., of Plainview, died on October 15 at the age of 68. Dr. Breslow received his medical degree from the University of Geneva in 1936. He was a staff family practitioner at Central General Hospital. Dr. Breslow was a member of the American Geriatrics Society, the Nassau County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Word has been received of the death of **Henry Buxbaum, M.D.**, of Canandaigua. Dr. Buxbaum received his medical degree from the University of Frankfurt in 1924. He was a member of the Ontario County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

The Medical Society of the State of New York has received word of the death of **Norman William Elton, M.D.**, of Sun City, Arizona, formerly of Binghamton. Dr. Elton graduated in 1926 from Boston University School of Medicine. He was a Diplomate of the American Board of Pathology (Pathologic Anatomy and Clinical Pathology), a Diplomate of the American Board of Preventive Medicine, Inc. (Public Health), a Fellow of the American College of Pathologists, a Fellow of the American College of Preventive Medicine, and a member of the American Society of Clinical Pathologists, the American Public Health Association, the American Society of Tropical Medicine and Hygiene, the American Association of Pathologists and Bacteriologists, the New York State Society of Pathologists, the Binghamton Academy of Medicine, the Broome County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

John Daniel Fadale, M.D., of Lackawanna, died on August 1 at the age of 85. Dr. Fadale graduated in 1918 from the University of Buffalo School of Medicine.

Abraham J. Fleischer, M.D., of The Bronx, died on October 14 at the age of 81. Dr. Fleischer graduated in 1923 from University and Bellevue Hospital Medical College. He was an assistant obstetrician and gynecologist at Flower and Fifth Avenue Hospitals, a consulting obstetrician and gynecologist at The Bronx-Lebanon Hospital Center, and a consulting, emeritus, obstetrician and gynecologist at Metropolitan Hospital Center. Dr. Fleischer was a Diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Surgeons, and a member of the New York Academy of Medicine, the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Hyman Benjamin Gitlin, M.D., of Brooklyn, died on July 7 at the age of 64. Dr. Gitlin received his medical degree from the University of Lausanne in 1943. He was an adjunct in internal medicine at Jewish Hospital and Medical Center of Brooklyn and an assistant family practitioner at Brookdale Hospital Medical Center. Dr. Gitlin was a member of the American Academy of Family Physicians, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Nathan A. Goldstein, M.D., of Flushing, died on September 25 at the age of 60. Dr. Goldstein graduated in 1938 from New York University School of Medicine. He was a Fellow of the American College of Angiology, a Fellow of the American College of Chest Physicians, and a member of the American Thoracic Society, the American Geriatrics Society, the New York Cardiological Society, the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Nelson Milton Gray, M.D., of Irvington and Hastings-on-Hudson, died on July 6 at the age of 73. Dr. Gray graduated in 1932 from the University of McGill Faculty of Medicine. He was an attending psychiatrist at Westchester County Medical Center. Dr. Gray was a member of the American Psychoanalytic Association, the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

William Francis Harrigan, M.D., of Rockville Centre, died on October 26 at the age of 72. Dr. Harrigan graduated in 1942 from New York University School of Medicine. He was a consulting oral surgeon at Mercy Hospital (Rockville Centre) and a consulting plastic surgeon at South Nassau Communities Hospital. Dr. Harrigan was a member of the American Society of Maxillofacial Surgeons, the Nassau County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Jacob O. S. Jaeger, M.D., of The Bronx, died on July 6 at the age of 80. Dr. Jacob graduated in 1924 from University and Bellevue Hospital Medical College. He was a Diplomate of the American Board of Psychiatry and Neurology (Psychiatry) and a member of the American Psychiatric Association, the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Emmanuel B. Kaplan, M.D., of The Bronx, died on

September 20 at the age of 86. Dr. Kaplan received his medical degree from the University of Kharkov in 1916. He was a consulting orthopedic surgeon at the Hospital for Joint Diseases and Medical Center and a consulting orthopedist at The Bronx-Lebanon Hospital Medical Center. Dr. Kaplan was a Diplomate of the American Board of Orthopedic Surgery, a Fellow of the American College of Surgeons, and a member of the American Orthopaedic Association, the American Academy of Orthopaedic Surgeons, the New York Academy of Medicine, the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph Martin Kaplan, M.D., of Brooklyn, died on September 25 at the age of 68. Dr. Kaplan received his medical degree from the University of Vienna in 1937. He was a member of the American Academy of Family Physicians, the American Geriatrics Society, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Kurt Leubuscher, M.D., of Brooklyn, died on June 17 at the age of 81. Dr. Leubuscher received his medical degree from the University of Berlin in 1923. He was a consulting ophthalmologist at Jewish Hospital and Medical Center of Brooklyn. Dr. Leubuscher was a Diplomate of the American Board of Ophthalmology and a member of the American Academy of Ophthalmology and Otolaryngology, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Albert I. Maller, M.D., of Massapequa Park, died on October 15 at the age of 57. Dr. Maller graduated in 1953 from Tulane University School of Medicine. He was a member of the American Academy of Family Physicians, the Nassau County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Silvio A. Mattucci, M.D., of New York City, died on July 2 at the age of 68. Dr. Mattucci received his medical degree from the University of Rome in 1935. He was an attending physician at Madison Avenue Hospital. Dr. Mattucci was a member of the American Academy of Family Physicians and the American Geriatrics Society.

Agnes I. E. Noel McFaul, M.D., of Washington, D.C., formerly of New York City, died on May 5 at the age of 90. Dr. McFaul graduated in 1943 from New York Medical College. She was a member of the American Geriatrics Society, the Pan American Medical Association, the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

David Arthur Meiselas, M.D., of Sarasota, Florida, formerly of Brooklyn, died on June 20 in his 94th year. Dr. Meiselas graduated in 1910 from University and Bellevue Hospital Medical College. He was a Fellow of the American College of Gastroenterology and a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Daniel M. Pino, M.D., of New York City, died on January 13, 1980, at the age of 66. Dr. Pino graduated in 1942 from New York University Medical School. He was an assistant attending anesthesiologist at The Presbyterian Hospital. Dr. Pino was a member of the American Society of Anesthesiologists, Inc., and the New York State Society of Anesthesiologists.

Eric Poulsen, M.D., of North Babylon, died on October 12 at the age of 72. Dr. Poulsen graduated in 1934 from New York Homeopathic Medical College and Flower Hospital. He was a member of the Suffolk Academy of Medicine, the Suffolk County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

W. R. Stanley Quackenbush, M.D., of Goshen, died on October 23 at the age of 78. Dr. Quackenbush graduated in 1930 from the University of McGill Faculty of Medicine. He was an honorary member of the medical staff at Arden Hill Hospital. Dr. Quackenbush was a member of the Orange County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Word has been received of the death of **James William Quinlan, M.D.,** of Rochester. Dr. Quinlan graduated in 1934 from Jefferson Medical College of Philadelphia. He was a consultant in internal medicine at St. Mary's Hospital and a consultant in medicine at The Genesee Hospital. Dr. Quinlan was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, and a member of the Rochester Academy of Medicine, the Monroe County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Vincent J. Rella, M.D., of Larchmont, died on May 3 at the age of 71. Dr. Rella recieved his medical degree from the University of Bologna in 1936. He was a member of the American Society of Anesthesiologists, Inc., and the New York State Society of Anesthesiologists.

Frank Rosen, M.D., of Staten Island, died on October 27 at the age of 80. Dr. Rosen received his medical degree from the University of Graz in 1924. He was an associate obstetrician at Richmond Memorial Hospital and an assistant physician at Sea View Hospital and Home. Dr. Rosen was a member of the American Academy of Family Physicians, the Richmond County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Claire Schiller, M.D., of New York City, died on June 7 at the age of 48. Dr. Schiller graduated in 1955 from the University of Witwatersrand Medical School, Johannesburg. She was an associate physician in rehabilitation medicine at Harlem Hospital Center. Dr. Schiller was a Diplomate of the American Board of Physical Medicine and Rehabilitation and a member of the American Academy of Physical Medicine and Rehabilitation.

Cecil L. Schultz, M.D., of Hudson, died on October 22 at the age of 84. Dr. Schultz graduated in 1920 from the University of Buffalo School of Medicine. He was a Fellow of the American College of Chest Physicians and a member of the American Thoracic Society, the Suffolk County

Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Harvey Earl Smith, M.D., of Binghamton, died on October 25 at the age of 80. Dr. Smith graduated in 1925 from Syracuse University College of Medicine. He was an honorary member of the medical staff at Binghamton General Hospital, a consulting general practitioner at Our Lady of Lourdes Memorial Hospital, and a senior family practitioner at the Charles S. Wilson Memorial Hospital. Dr. Smith was a member of the American Public Health Association, the Binghamton Academy of Medicine, the Broome County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Cyril Solomon, M.D., of New York City and Smithtown, died on October 31 at the age of 68. Dr. Solomon graduated in 1936 from the University of Maryland School of Medicine and College of Physicians and Surgeons. He was director of pathology at Smithtown General Hospital. Dr. Solomon was a Diplomate of the American Board of Pathology (Pathologic Anatomy), a Fellow of the American College of Pathologists, and a member of the American Association of Pathologists and Bacteriologists, the American Society of Clinical Pathologists, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Donald G. Sutherland, M.D., of Voorheesville, died on October 12 at the age of 68. Dr. Sutherland graduated in 1940 from the University of Buffalo School of Medicine. He was a member of the Albany County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Exie E. Welsch, M.D., of New York City, died on October 28 at the age of 72. Dr. Welsch graduated in 1932 from Indiana University School of Medicine. She was an assistant attending psychiatrist at The Presbyterian Hospital. Dr. Welsch was a Diplomate of the American Board of Psychiatry and Neurology (Psychiatry and Child Psychiatry) and a member of the American Psychiatric Association, the American Academy of Child Psychiatry, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

James Manuel Wolf, M.D., of The Bronx and Pelham Manor, died on September 5 at the age of 60. Dr. Wolf received his medical degree from the University of Havana in 1943. He was a member of the American Geriatrics Society, the American Academy of Family Physicians, the International Academy of Proctology, the New York Cardiological Society, the New York Academy of Medicine, the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

The annotation of "**You and Your Prostate.**" By Francis Patton Twinem, M.D. Springfield, Ill., Charles C Thomas Publisher, 1980. Illustrated, 104 pages. Softcover, (no price given), was published on page 1904 of the Journal, November, 1980. Since then, the Journal has been informed that the book is published in a hardcover, price $7.75; as well as the softcover, or paperback, which is $5.95, postpaid.
The Journal is grateful for this additional information.

MEDICAL SOCIETY

of the

STATE OF NEW YORK

BYLAWS

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LAKE SUCCESS, NEW YORK 11042

MEDICAL SOCIETY OF THE STATE OF NEW YORK

BYLAWS

Revised 1980

ARTICLE I. NAME AND PURPOSE

The name and title of the State Society shall be the Medical Society of the State of New York. The purposes of the State Society shall be: to federate into one organization the medical profession of the State of New York; to extend medical knowledge and advance the science and art of medicine; to establish the *Principles of Professional Conduct* which shall be binding on the members of the Medical Society of the State of New York, the members of the component county medical societies, and the members of the component district branches, in all matters in their relation to each other and to the public; to enhance the delivery of medical care of high quality to all people in the most economical manner; to promote the betterment of community health; and to enlighten and direct public opinion in regard to the problems of medicine and health for the best interests of the people of the State.

ARTICLE II. MEMBERSHIP

SECTION 1. CLASSES

The membership in the Medical Society of the State of New York shall be divided into four classes: (a) active, (b) life, (c) honorary, and (d) student.

Active membership shall be limited to graduates of recognized medical or osteopathic schools who have completed not less than four satisfactory years of at least eight months each, or the equivalent, in a medical or osteopathic school in the United States of America or Canada registered as maintaining at the time a standard satisfactory to the medical or osteopathic licensing authorities of the State of New York, or in a medical or osteopathic school in a foreign country maintaining a standard not lower than that prescribed for medical schools in this State.

The active members shall be all active members in good standing of the component county medical societies. A copy of the roster of such members, certified to be correct by the respective secretary of each component county medical society, shall be evidence of the right of the members whose names appear therein to membership in the Medical Society of the State of New York.

Student members shall be those members enrolled in recognized medical schools in the State of New York, who are pursuing a course of study leading to the degree of Doctor of Medicine. Eligible students may become members of the Medical Society of the State of New York. Concurrent membership in a component county society and the American Medical Association is not a requirement for student membership. They shall apply for student membership on a form supplied by the secretary together with such dues as are fixed by the House of Delegates. When a student member ceases to be enrolled in a recognized school of medicine in the State of New York pursuing a course of study leading to a degree of Doctor of Medicine, he shall be considered to have resigned from membership in the Medical Society of the State of New York.

A student member who is suspended from the rights and privileges of his medical school shall likewise be suspended for the same period from the Medical Society of the State of New York.

An active member in good standing who has completely withdrawn from the active practice of medicine and who has been a member in good standing for the ten consecutive years prior to the attainment of the age of seventy years or an active member in good standing who continues the active practice of medicine and who has been a member in good standing for the ten consecutive years prior to the attainment of the age of seventy-five years, or an active member in good standing for ten consecutive years or more who is permanently disabled, may apply for life membership. The House of Delegates or the Council may waive the requirements in a proper case where there appear to be extenuating circumstances. He shall apply for such life membership to the component county medical society of which he is a member. His application shall be governed by the constitution and bylaws of the component county medical society relative to active membership.

His application shall be signed by the president and the secretary of the component county medical society of which he is a member and sent to the secretary of the State Society for presentation to the Council for approval.

The honorary members of the Medical Society of the State of New York shall be such distinguished physicians residing outside the State of New York as may be elected. Nominations for honorary membership shall be endorsed by three members of the State Society and forwarded to the secretary of the State Society for presentation to the House of Delegates. A two-thirds vote of the House of Delegates present and voting shall be necessary for election to honorary membership.

SECTION 2. PRIVILEGES

Active members vote and hold office in the Medical Society of the State of New York.

They shall be entitled to receive the *New York State Journal of Medicine*, the *News of New York*, and the *Medical Directory of New York State*.

Life members shall not be subject to Medical Society of the State of New York dues or assessments but shall be accorded all the rights and privileges of active membership. They shall be entitled to receive the *New York State Journal of Medicine* and the *News of New York*, but the *Medical Directory of New York State* only on request.

Student members shall be entitled to receive the *New York State Journal of Medicine* and the *News of New York*, but not the *Medical Directory of New York State*.

Honorary members shall be entitled to the privilege of attending the meetings of the Medical Society of the State of New York.

For a member elected after October 1, all rights and privileges of membership shall date from the time of election.

State Society dues and assessments of a member elected after October 1 shall be credited to the succeeding year.

A member of one component county medical society shall not be permitted to transfer to membership in another component county medical society until he has paid the current annual dues and assessments to the former component county medical society and has established a legal residence or practices in the county to which he desires transfer, except as provided in Article XVIII, "Component County Medical Societies," Section 2. The question of legal residence or locus of practice shall be verified by the component county medical society to which the member desires transfer.

Any member, except a member who is eligible and has applied for life membership, whose component county medical society and Medical Society of the State of New York dues are unpaid after May 1 of any current year or whose assessments are unpaid by the specified time is not in good standing and shall be deemed to be in arrears.

A member of the Medical Society of the State of New York who is in arrears for component county medical society dues and State Society dues or assessments shall not be eligible for any office or delegacy or be entitled to vote for any officer, councilor, trustee, or delegate.

A member whose dues are unpaid after June 1 or whose assessments are unpaid one month after the specified date shall be dropped from the rolls of membership of his component county medical society and the Medical Society of the State of New York upon reasonable notice to such member by his component county medical society, or the State Society, and without further action on the part of either the component county medical society or the State Society,and on such date he shall automatically cease to be a member of both the component county medical society and the State Society.

A member who has been dropped from the roll of a component county medical society by reason of failure to pay dues shall not be accepted by another component county medical society except by regular transfer after reinstatement in the original component county medical society.

Medical Society of the State of New York dues of a member reinstated after October 1 shall be credited to the succeeding year, all rights and privileges of membership, however, dating from the time of reinstatement; but no member dropped for nonpayment of dues and assessments shall be reinstated until he has, in addition, paid his dues and assessments for the year in which he was dropped.

A member convicted in a court of law of a crime evidencing moral turpitude shall thereupon cease to be a member of the Medical Society of the State of New York.

A member expelled from his component county medical society or suspended from its rights and privileges shall likewise be expelled or suspended for the same period from the Medical Society of the State of New York. The right of appeal to the State Society shall not be impaired. Members not in good standing or ceasing to be members of their component county medical society shall *ipso facto* have the same status in the State Society.

SECTION 3. CONTINUING MEDICAL EDUCATION

An active member who fails to fulfill the requirements for continuing medical education established by the Council of the Medical Society of the State of New York shall not be in good standing. This section shall become effective on March 1, 1981.

An active member as defined in Article II, Section 1, who is found not to be in good standing as of March 1, 1981, or March 1 of any subsequent year, for failing to comply with paragraph 1 of this Section shall receive reasonable notice that he must fulfill continuing medical education requirements by the last day of December of the year in which he is found not to be in good standing. An active member who does not fulfill continuing medical education requirements by the last day of December of the year in which he is found not to be in good standing shall automatically cease to be a member of the component county medical society and the State Society, unless, in the view of the Council, specific mitigating circumstances exist that the physician could not complete the CME requirements.

ARTICLE III. HOUSE OF DELEGATES

There shall be a House of Delegates which shall be the legislative body of the Medical Society of the State of New York and shall be charged with the general management, superintendence, and control of the State Society and its affairs, and shall have such general powers as may necessarily be incident thereto, except as otherwise specifically provided by the Bylaws.

SECTION 1. COMPOSITION

The House of Delegates shall be composed of: (a) duly designated delegates from the component county medical societies; (b) officers of the Medical Society of the State of New York, councilors, and trustees; (c) a duly designated delegate from each district branch; (d) a duly designated delegate from each scientific section; (e) duly designated delegates from the student membership; (f) the Commissioner of Health of the State of New York, or a deputy designated by him, provided that any representative shall be a member of the State Society; (g) past-presidents of the State Society and any past president of the American Medical Association, provided that individual is a member of the Medical Society of the State of New York who shall be members for life; and (h) a representative from each of the medical schools in New York State, provided said representative is a member of the Medical Society of the State of New York.

The number of delegates to which each component county medical society is entitled shall be determined by one of the two following optional methods:

(a) Each component county medical society shall be entitled to as many delegates as there shall be State assembly districts in such county at the time of election, but each county medical society shall be entitled to elect at least 1 delegate;

(b) Any component county medical society, which according to the rolls of the Medical Society of the State of New York two months prior to the annual meeting, shall have had up to 99 members, shall be entitled to 1 delegate. Any component county medical society having 100 to 199 members shall be entitled to 2 delegates. Any component county medical society having 200 to 349 members shall be entitled to 3 delegates. Any component county medical society having 350 to 499 members shall be entitled to 4 delegates. Any component county medical society having 500 to 749 members shall be entitled to 5 delegates. Any component county medical society having 750 to 999 members shall be entitled to 6 delegates. Any component county medical society having 1,000 or more members shall be entitled to at least 7 delegates and 1 additional delegate for each additional 300 members. Each component county medical society shall be entitled to designate at least 1 delegate, but no component county medical society shall be entitled to designate more than 30 delegates.

A delegate to the House of Delegates shall not be considered in good standing or entitled to vote in the House of Delegates if the component county medical society by which he was elected is in default of the payment of any dues or assessments imposed by the House of Delegates, and said component county medical society has been duly notified of such default, or if such component county medical society shall at the time be under sentence of suspension imposed by the House of Delegates, or if such delegate is not in good standing in the Medical Society of the State of New York, or in the component county medical society to which he belongs.

The term of a delegate duly designated by a component county medical society, district branch, scientific section, or medical school shall begin at the first annual meeting of the House of Delegates subsequent to his designation.

A delegate shall practice or maintain residence or an office in the State of New York. Otherwise his office as a delegate in the Medical Society of the State of New York shall be declared vacant by the Council.

The student members of each medical school in New York State shall, at least sixty days prior to the annual meeting of the House of Delegates of the Medical Society of the State of New York, elect two members from among their number to represent them at the business meeting of the student members which shall be held immediately prior to the convening of the House of Delegates. At such meeting the representatives shall elect a chairman, vice-chairman, secretary, delegates, and alternate delegates. The medical student membership shall be entitled to one delegate and one alternate delegate and, according to the rolls of the Medical Society of the State of New York, sixty days prior to the annual meeting, one additional delegate for each additional 400 student members, up to a maximum of 3 delegates. No member shall hold more than one such office. The chairman, vice-chairman, and secretary shall conduct the business meeting and the delegates and alternate delegates shall represent the student members at the first annual meeting of the House of Delegates subsequent to their designation.

SECTION 2. DUTIES

The House of Delegates formulates policy for the Medical Society of the State of New York. No officer, councilor, board, commission, committee, or employee shall initiate any policy or commit the State Society to any policy unless such policy has been expressly approved by the House of Delegates or by the Council.

It shall elect the officers, councilors, and trustees of the State Society and the delegates to the American Medical Association.

Credentials signed by the president and secretary shall be issued to delegates to the American Medical Association.

It shall pass on the credentials and qualifications of delegates and shall decide who are entitled to be members of the House of Delegates of the Medical Society of the State of New York.

It shall have authority and power to suspend or otherwise discipline its own members, district branches, component county medical societies, or any members of the Medical Society of the State of New York charged with special duties for and under authority of the State Society.

It shall provide for a division of the scientific work of the Medical Society of the State of New York into appropriate sections; for the organization of the district branches; for rules and regulations for its own government, and for the administration of the affairs of the State Society.

It shall provide for the issuance of charters to component county medical societies in affiliation with the Medical Society of the State of New York.

It shall have authority to appoint special committees from among members of the Medical Society of the State of New York.

SECTION 3. MEETINGS

The annual meeting of the Medical Society of the State of New York and the annual meeting of the House of Delegates shall be held at the call of the speaker.

Such annual meetings may be held during the annual convention of the Medical Society of the State of New York though this is not required.

The sessions of the House of Delegates may be adjourned from time to time as may be necessary. At least 30 days before the annual meeting of the House of Delegates, the speaker shall announce a schedule of the adjourned sessions of the House of Delegates. This schedule may be amended by the House of Delegates during its meeting.

Resolutions may be submitted to the House of Delegates only by members of the House of Delegates as individuals, or as delegates representing component county medical societies, district branches and scientific sections, or by component county medical societies, district branches, and scientific sections.

No new resolution shall be introduced at the last scheduled session except by a unanimous vote of the House of Delegates.

Special meetings of the House of Delegates shall be called by the speaker on the request in writing by 25 per cent of the duly accredited delegates of the previous annual meeting of the House, or at the request of the Council; and in case of the failure, inability, or refusal of the speaker to act, such meetings may be called by a notice thereof subscribed by 25 per cent of duly accredited delegates.

The notices of the annual and special meetings of the House of Delegates shall state the date, place, hour, and items of business that will be considered. These shall be mailed first class postpaid to each delegate not less than ten nor more than fifty days before such a meeting.

Publication of the notice of the annual meeting in the official publication of the Medical Society of the State of New York shall be considered as complying with this provision.

The affidavit of mailing by the secretary of the Medical Society of the State of New York to the last recorded address of the delegate shall be deemed sufficient proof of the service on each and every delegate for any and all purposes.

A quorum shall consist of 100 members of the House of Delegates.

The following shall be the order of business at the sessions of the House of Delegates:

1. Calling the meeting to order
2. Invocation
3. National Anthem
4. Report of Reference Committee on Credentials
5. Report by the secretary as to the presence or absence of a quorum
6. Remarks by the speaker
7. Reading of the minutes of the previous meeting by title
8. Address by the president
9. Report of House Committee on Bylaws
10. Report of the Judicial Council
11. Reports of Council commissions and committees
12. Report of the secretary
13. Report of the treasurer
14. Report of the Board of Trustees
15. Report of the executive vice-president
16. Reports of district branches
17. Reports of special committees
18. Reports of reference committees
19. Elections
20. Recess for annual meeting of the State Society
21. Unfinished business
22. New business
23. Adjournment

This order of business may be altered by the speaker with the approval of the House of Delegates and may be suspended by two-thirds vote of the House.

No delegate shall speak on any question before the House of Delegates for longer than five minutes nor more than once on any subject except by the consent of a majority vote of the House.

As the first business of the last scheduled session of the annual meeting of the House of Delegates, the officers, councilors, and the trustees of the Medical Society of the State of New York, and the delegates to the American Medical Association shall be nominated and elected.

The rules contained in *Sturgis Standard Code of Parliamentary Procedure* shall govern the House of Delegates in all cases in which they are not inconsistent or in conflict with the Bylaws of the Medical Society of the State of New York or the standing or special rules of the House of Delegates.

ARTICLE IV. COUNCIL

There shall be a Council which shall exercise all the rights and duties of the House of Delegates, consistent with the Bylaws of the State Society, when the House of Delegates is not in session. The Council, therefore, is in fact the executive committee of the House of Delegates.

SECTION 1. COMPOSITION

The Council shall be composed of the president, president-elect, vice-president, immediate past-president, secretary, assistant secretary, treasurer, assistant treasurer, speaker, vice-speaker, chairman of the Board of Trustees, and 12 councilors elected by the House of Delegates.

The trustees, the executive vice-president, the deputy executive vice-president, and the general counsel of the Medical Society of the State of New York shall attend all meetings of the Council with voice but without vote.

Four councilors shall be elected annually by the House of Delegates, each for a term of three years. In the event of a vacancy, a councilor shall be elected by the Council to serve until the next meeting of the House of Delegates, at which time the House of Delegates shall elect a councilor to fill the unexpired term.

No person shall serve, consecutively, more than two terms as councilor. An unexpired term shall not be construed as a term of office.

The councilors shall assume office on election and shall hold office until their successors are duly elected and qualified.

Councilors shall be assigned to specific county societies as liaison for the Council in accordance with the provisions of Article V, Section 2. Councilors shall be required to disseminate information of Council activity as well as returning information to the Council, and shall report regularly to the Council on their activity.

A councilor shall practice or maintain a residence or an office in the State of New York. Otherwise his position in the Medical Society of the State of New York shall be declared vacant by the Council.

If a councilor is absent from three consecutive regular meetings of the Council without proper excuse, the Council shall declare his position vacant and elect a successor for the unexpired term.

SECTION 2. DUTIES

The Council shall take such action as is necessary to carry out the Bylaws and to give full effect to any resolution or vote of the House of Delegates.

It shall also have power to legislate as a House of Delegates, when the latter is not in session, on all matters consistent with the Bylaws.

It shall have the authority to make policy for the Medical Society of the State of New York when the House of Delegates is not in session.

The Council's resolutions and actions shall be decisive and final except that all resolutions and actions of the Council are subject to review by the House of Delegates. Its actions shall be governed by the Bylaws of the Medical Society of the State of New York and the rules and regulations of the House of Delegates.

The Council shall have the authority to vote all funds of the Society subject to the approval of the Board of Trustees.

Should the Board of Trustees disapprove of the expenditure of any funds voted for by the House of Delegates or the Council, then and in that event, the Board of Trustees shall return the matter to either the House of Delegates or the Council, if the House of Delegates is not in session, which may override such disapproval by a three-quarter vote and direct the expenditure of such funds. The Board of Trustees shall not vote on this issue at a meeting of the House of Delegates and the chairman of the Board of Trustees shall not vote on this issue at the Council.

The Council shall have power to fill any vacancy which may occur in any elective office not otherwise provided for, until the next meeting of the House of Delegates.

The Council shall, by written notice, inform the component county medical societies of the specific Councilor assigned to it as liaison with the Council.

It shall prepare an annual budget for submission to the Board of Trustees.

The Council utilizing a search committee shall, with the approval of the Board of Trustees, appoint and reappoint an executive vice-president, who shall be the chief executive officer of the Medical Society of the State of New York, to manage and direct the activities of the State Society including disbursement of its funds when duly authorized. He shall be a member of all boards, commissions, and committees with voice but without vote. The executive vice-president shall appoint and reappoint a deputy executive vice-president subject to the approval of the Council.

The Council shall act on the applications for life membership which have been submitted by the component county medical societies. A majority vote of the Council present and voting shall be necessary for election to life membership.

The Council shall have responsibility for all publications of the Medical Society of the State of New York and their distribution. For the purpose of required announcements, the official publication of the State Society shall be the *New York State Journal of Medicine*.

Special committees shall report to the Council and shall be subject to the Council unless otherwise instructed by the House of Delegates.

The Council, with the aid of the general counsel of the Medical Society of the State of New York, shall examine the constitution and bylaws of component county medical societies and district branches and/or all amendments thereto which shall be submitted to the Council for approval and shall approve or disapprove of said amendments.

The duties of the Council shall include the supervision of all commissions, committees, and activities of the Medical Society of the State of New York.

The Council shall also keep constantly advised of the activities of and collaborate with the health and social service departments of the State and with hospitals, clinics, and social service agencies in furthering the health of the community.

Commissions and committees of the Council may include any member of the Medical Society of the State of New York who shall be appointed by the president subject to the approval of the Council.

The Council shall control all arrangements for the annual convention of the Medical Society of the State of New York.

SECTION 3. TRIALS FOR MALFEASANCE

The Council shall sit as a trial body for hearings on charges of malfeasance and/or nonfeasance.

Charges of malfeasance or nonfeasance preferred by a member against an officer, councilor, trustee, or member of a board, commission, or committee of the Medical Society of the State of New York shall be transmitted to the president in writing. The president shall order a trial on said charges by the Council, or a committee thereof.

Charges of malfeasance or nonfeasance preferred by a member against the president shall be transmitted in writing to the secretary of the Medical Society of the State of New York and shall be considered by the Council with the vice-president presiding.

The accused shall be given at least ten days' notice of such trial and of the charges against him and shall have full opportunity to defend himself, but no such officer, councilor, trustee, or member of a board, commission, or committee shall be removed or otherwise disciplined except by a three-fourths vote of the Council.

In case any such officer, councilor, trustee, or member of a board, commission, or committee shall be removed, he may appeal from the decision of the said Council to the House of Delegates; but, pending the determination of such appeal, he shall not exercise the functions of his office.

SECTION 4. EXECUTIVE COMMITTEE

The Council shall establish an executive committee to be composed of the president, the vice-president, the president-elect, the immediate past-president, the secretary, the treasurer, and two additional members of the Council appointed by the president with the approval of the Council.

This committee shall be appointed by the president and shall serve only during his tenure as president.

The executive committee shall have the authority to take action in case of emergency arising in the interim between the meetings of the Council to protect the interests and purposes of the Medical Society of the State of New York as set forth in these Bylaws. In times of such emergency, the executive committee shall have all the powers and duties which are conferred on the Council, and it shall at all times assist the Council. Any action taken by the executive committee shall be reported in full to the Council at its next meeting.

SECTION 5. MEETINGS

The newly elected Council shall meet at the close of the annual meeting of the House of Delegates. The Council and Executive Committee shall meet at regular intervals at times and places that shall be fixed by the president with the approval of the Council. Twenty-five per cent of the members of the Council in writing may require the president to call a special meeting for such time and place as he shall designate, within ten days of his receipt of such notice.

The notices of the regular meetings of the Council shall state the date, place, hour, and shall be mailed postpaid to each member by first class mail not less than ten nor more than fifty days before a meeting.

The affidavit of mailing by the secretary of the Medical Society of the State of New York to the last recorded address of the Council member shall be deemed sufficient proof of the service on each and every Council member for any and all purposes.

Council members must receive at least three days' notice by letter or telegram from the State Society's office of a special meeting, which shall state the date, place, hour, and items of business that will be considered.

A quorum shall consist of 14 members of the Council.

The following shall be the order of business at meetings of the Council, which may be altered by the chairman with the consent of the Council:

1. Calling the meeting to order
2. Roll call
3. Reading of minutes
4. Communications
5. Report of the Executive Committee
6. Report of the president
7. Report of the secretary
8. Report of the treasurer
9. Report of the chairman of the Board of Trustees
10. Reports of councilors
11. Report of the executive vice-president
12. Reports of commissions and committees
13. Unfinished business
14. New business
15. Adjournment

ARTICLE V. OFFICERS

The officers of the Medical Society of the State of New York shall be a president, a president-elect, a vice-president, a secretary, an assistant secretary, a treasurer, an assistant treasurer, a speaker, and a vice-speaker of the House of Delegates. They shall take office at the termination of the annual meeting at which they are elected and shall serve for one year or until their successors have been duly chosen.

No person may serve, consecutively, more than five terms as secretary, treasurer, assistant secretary, assistant treasurer, speaker, or vice-speaker. An unexpired term shall not be construed as a term of office.

No salaried employee of the Medical Society of the State of New York shall be an elected officer of the Medical Society of the State of New York. For the purposes of this article an honorarium shall not be considered as a salary.

SECTION 1. VACANCIES AND SUCCESSION

An officer shall practice or maintain a residence or an office in the State of New York, otherwise his office in the Medical Society of the State of New York shall be declared vacant.

The president-elect shall succeed to the presidency at the end of his term as president-elect.

In the event of the president's death, resignation, removal, permanent incapacity, or refusal to act, the vice-president shall succeed him and shall serve for the remainder of the unexpired term.

If the president is temporarily incapacitated for service by injury, ill health of himself or his family, important professional duties, or any other mandatory absence, the vice-president shall become acting president for the duration of such incapacity of the president. The president shall promptly notify the vice-president of his incapacity and request his attention to the duties of the office and shall also promptly notify the vice-president of the end of the period of temporary incapacity before resuming the office of the presidency.

If the office of vice-president becomes vacant, for any reason whatsoever, the Council, when the House of Delegates is not in session, shall elect a successor for the unexpired term.

If the office of president-elect becomes vacant, it shall remain so until the next annual meeting of the House of Delegates, at which an eligible member shall be elected to become president. A president-elect to succeed him at the end of his term shall also be elected at the same meeting.

The assistant secretary, the assistant treasurer, and the vice-speaker shall serve as the secretary, the treasurer, and the speaker, respectively, whenever these senior officers are incapacitated for service by injury, ill health of themselves or families, important professional duties, or any other mandatory absences. This shall be construed so as to include duty at or during meetings of the Board of Trustees as well as the other official duties designated for the senior officer. The senior officer shall promptly notify the junior officer of his incapacity and request his attention to said duties. When the period of incapacity is ended, the senior officer shall promptly notify the junior officer of the end of the period of temporary incapacity before resuming office.

If the offices of secretary, treasurer, or speaker become vacant, for any reason whatsoever, these officers shall be succeeded by the assistant secretary, assistant treasurer, and vice-speaker, respectively, for the unexpired term.

If the office of assistant secretary, assistant treasurer, or vice-speaker becomes vacant, for any reason whatsoever, the Council, when the House of Delegates is not in session, shall elect a successor for the unexpired term.

If an elected officer is absent from three consecutive regular meetings of the Council, without proper excuse, the Council shall declare his office vacant. The vacancy shall be filled as provided in the Bylaws.

Any elected officer of the Medical Society of the State of New York who is called into active service in the armed forces of the United States or in the United States Public Health Service may, on application to the Council, be granted leave of absence for any portion of his term of office during which he is on active service. During such absence, his duties shall be delegated as the Council may direct except where such delegation is already provided for elsewhere in the Bylaws.

SECTION 2. DUTIES

President

The president shall set the dates and place of regular meetings of the Council and Executive Committee and shall preside at all meetings of the Medical Society of the State of New York, the Council, and the Executive Committee.

He shall name the appointive members of the Executive Committee and appoint the chairmen and members of all committees and the chairmen of all commissions of the Council with the approval of the Council. He shall appoint all other committees not otherwise provided for, with the approval of the Council.

Within three months after assuming the office of president, he shall appoint, as prescribed in Article XI, Section 2, a nominating committee, whose names he shall cause to be published in the official publication of the Medical Society of the State of New York.

He shall be an *ex officio* member of all boards, commissions, and committees with voice and vote, with the exception of the Judicial Council, the Board of Trustees, and the Nominating Committee wherein he shall have voice but no vote.

With the approval of the Council, he shall appoint a member to the Judicial Council to succeed the member with an expiring term, and in the event of a vacancy occasioned otherwise, he shall appoint a member for the unexpired term.

He shall appoint, with the approval of the Council, representatives to other medical societies or similar bodies as the interests of the Medical Society of the State of New York may require.

He shall appoint a sufficient number of delegates or alternate delegates to the House of Delegates of the American Medical Association when the full quota of those elected is not available, as provided in the Bylaws, Article VIII, paragraphs 3 and 4.

He shall assign Councilors as liaison between the Council and specific county medical societies for the purpose of the dissemination of information to such societies.

He shall appoint, with the approval of the Council, a chairman and a secretary for each organized session of the Medical Society of the State of New York.

When charges by a member of malfeasance or nonfeasance are preferred against any other officer, councilor, trustee, or member of a board, commission, or committee of the Medical Society of the State of New York and are transmitted to the president in writing, he shall order a trial on said charges by the Council, or a committee thereof.

He shall assign the special branches of work for which the members of the Council shall be responsible, with the approval of the Council.

He shall make an annual report to the House of Delegates.

He shall deliver an address at the annual meeting of the House of Delegates. He shall perform such other duties as the House of Delegates or the Council shall require.

He shall attend all meetings of the House of Delegates of the American Medical Association.

President-Elect

The president-elect shall perform such duties as may be requested by the president.

The president-elect shall attend all meetings of the House of Delegates of the American Medical Association.

Vice-President

The vice-president shall perform the duties of the president in the latter's absence.

He shall preside over the Council when it is deliberating on charges of malfeasance or nonfeasance preferred against the president.

Secretary

The secretary shall attend all meetings of the Medical Society of the State of New York, the House of Delegates, the Council, the Board of Trustees, and the Judicial Council, and shall keep minutes of their respective proceedings. These minutes shall be copied from a stenographer's notes with such deletion only as will not modify, alter, or becloud the history of the actions of the said bodies. The stenographer's typewritten copy shall be preserved until ordered destroyed by the House of Delegates.

He shall perform such other duties as may be prescribed from time to time by the House of Delegates or the Council. He shall attend all meetings of the House of Delegates of the American Medical Association.

The secretary shall be the custodian of the seal of the Medical Society of the State of New York and of all books of records and papers belonging to the State Society, except such as properly belong to the treasurer, and shall keep an account of and promptly turn over to the treasurer all funds of the State Society which come into his hands.

He shall record the name and date of admission of each member of the Medical Society of the State of New York.

He shall provide for the registration of the members at all conventions of the Medical Society of the State of New York. With the aid and cooperation of the secretaries of the component county medical societies, he shall keep a proper register of all registered physicians of the State by counties.

He shall conduct the official correspondence, notifying members of meetings, officers, councilors, trustees, and board members of their election, and commissions and committees of their appointments and duties.

He shall affix the seal of the Medical Society of the State of New York to the credentials of delegates to the American Medical Association and to such other papers and documents as may require the same.

He shall make an annual report to the House of Delegates. Acting in cooperation with the Council, he shall prepare and issue all programs.

He shall be an *ex officio* member of all boards, commissions, and committees with voice and vote, with the exception of the Judicial Council, the Board of Trustees, and the Nominating Committee wherein he shall have voice but no vote.

Assistant Secretary

The assistant secretary shall aid the secretary in the work of his office.

Treasurer

The treasurer shall keep accurate books of accounts of all moneys of the Medical Society of the State of New York which he may receive and shall disburse or cause to be disbursed the same when duly authorized. He shall be the official custodian of all securities and the income thereof owned by the State Society, subject to the direction and disposition of the Board of Trustees. The Board of Trustees may select a bank or trust company to act as custodian in the place of the treasurer of all or any part of such securities and to act as agent of the State Society in collecting the income therefrom.

He shall collect, on or before the first day of May in each year, from the treasurer of each component county medical society, the Medical Society of the State of New York per capita annual dues. He shall collect any assessments voted by the House of Delegates or the Council. He shall, at the expense of the Medical Society of the State of New York, give a bond for the faithful performance of his duties, which shall be approved by the Board of Trustees as to amount, form, and surety. He shall make an annual report to the House of Delegates and report to the Council at each of its meetings. He shall be an *ex officio* member of the Professional Medical Liability Insurance and Defense Board, with voice but without vote.

Assistant Treasurer

The assistant treasurer shall aid the treasurer in the work of his office.

He shall, at the expense of the Medical Society of the State of New York, give a bond for the faithful performance of his duties, which shall be approved by the Board of Trustees as to the amount, form, and surety.

Speaker

The speaker shall preside at all meetings of the House of Delegates. He shall appoint all committees to serve during the meeting of the House of Delegates at least thirty days in advance of the meeting. All resolutions submitted by component county medical societies, district branches, scientific sections, and medical schools to be presented to the House of Delegates should be forwarded to the speaker at least forty-five days in advance of the annual meeting of the House and referred by him to the appropriate reference committees; and all resolutions sent in subsequent to forty-five days should be presented to the House and referred to the appropriate reference committees.

Vice-Speaker

The vice-speaker shall perform the duties of the speaker when so requested by the speaker.

ARTICLE VI. TRUSTEES

There shall be a Board of Trustees which shall have charge of all property including trust funds and shall supervise the financial affairs of the Medical Society of the State of New York.

SECTION 1. COMPOSITION

The Board of Trustees shall consist of seven members elected by the House of Delegates. The president, secretary, treasurer, executive vice-president, deputy executive vice-president, and general counsel shall sit with the Board of Trustees with voice but without vote.

One trustee shall be elected annually for a term of five years, but whenever the terms of two trustees expire in the same year, two trustees shall be elected each for five years.

To be eligible for election as trustee, a member shall have served at least two years as an officer or at least three years as a councilor, or at least five years as a member of the House of Delegates.

No person shall serve more than one term as a trustee. An unexpired term shall not be construed as a term of office.

A trustee shall practice or maintain a residence or an office in the State of New York, otherwise his position in the Medical Society of the State of New York shall be declared vacant.

If a trustee is absent from three consecutive regular meetings of the Board, without proper excuse, the Council shall declare his position vacant and elect a successor for the unexpired term.

In the event of a vacancy, a trustee shall be elected by the Council to serve until the next meeting of the House of Delegates at which time the House of Delegates shall elect a trustee to fill the unexpired term.

SECTION 2. DUTIES

The annual budget estimate, prepared by the Committee on Budget and Finance, after its approval by the Council, shall be submitted to the Board of Trustees for its approval.

All resolutions or recommendations of the House of Delegates or Council pertaining to expenditures of money must be approved by the Board of Trustees before the same shall become effective.

Should the Board of Trustees disapprove of the expenditure of any funds voted for by the House of Delegates or the Council, then and in that event, the Board of Trustees shall return the matter to either the House of Delegates or the Council, if the House of Delegates is not in session, which may override such disapproval by a three-quarter vote and direct the expenditure of such funds. The Board of Trustees shall not vote on this issue at a meeting of the House of Delegates and the chairman of the Board of Trustees shall not vote on this issue at the Council.

The Board of Trustees shall make and execute all contracts for the Medical Society of the State of New York. The fiscal year shall begin January 1 and end December 31 of each calendar year.

All moneys of the Medical Society of the State of New York received by the Board of Trustees, Council, or any member or agent thereof, shall be paid to the treasurer of the State Society. The Board of Trustees shall approve the bond of the treasurer and the assistant treasurer as to amount, form, and surety, and shall employ a certified public accountant licensed by the State of New York to audit the accounts of the treasurer and secretary and other agents of the State Society and present a statement of the same in its annual report to the House of Delegates.

The chairman of the Board of Trustees shall make a report to the House of Delegates of its transactions for the year and of the amount of money belonging to the Medical Society of the State of New York under its control.

SECTION 3. MEETINGS

The Board of Trustees shall meet immediately at the close of the annual meeting of the House of Delegates, and shall organize under the temporary chairmanship of the member senior in service on the Board, elect a permanent chairman, and fix the time and place of its regular meetings. Should two trustees have similar seniority, choice between them for temporary chairmanship shall be by lot.

The Board of Trustees shall meet at least bimonthly, except in July and August.

The notices of the regular and special meetings of the Board of Trustees shall state the date, place, and hour and shall be mailed first class postpaid to each member not less than ten nor more than fifty days before a regular meeting and at least five days before a special meeting.

The affidavit of mailing by the secretary of the Medical Society of the State of New York to the last recorded address of the trustee shall be deemed sufficient proof of the service on each and every trustee for any and all purposes.

Any three members of the Board of Trustees may require the chairman to call a special meeting at the office of the Medical Society of the State of New York for such time as shall be designated by them in writing.

A quorum shall consist of four members of the Board of Trustees.

The following shall be the order of business at the meetings of the Board of Trustees, which may be altered by the chairman with the approval of the Board:

1. Calling the meeting to order
2. Roll call by the secretary
3. Reading of minutes
4. Communications
5. Reports
6. Unfinished business
7. New business
8. Adjournment

ARTICLE VII. JUDICIAL COUNCIL

There shall be a Judicial Council which shall have jurisdiction to hear and determine all appeals from decisions on discipline of component county medical societies or decisions of such societies which may involve the privileges, rights, or standing of members, whether in relation to one another or to component county medical societies or to the Medical Society of the State of New York.

It shall hear also from applicants on appeals from the action of a component county medical society in excluding them from membership.

SECTION 1. COMPOSITION

The Judicial Council shall consist of five appointed members. One member shall be appointed by the president each year for a term of five years with the approval of the Council.

No member shall serve for more than two consecutive terms, but a member appointed to serve an unexpired term shall not be regarded as having served a term unless he has served three or more years.

A member of the Judicial Council shall practice or maintain a residence or an office in the State of New York, otherwise his position on the Judicial Council shall be declared vacant.

In the event of a vacancy, a member shall be appointed by the president for the unexpired term with the approval of the Council.

The president and secretary of the Medical Society of the State of New York shall be *ex officio* members of the Judicial Council with voice but no vote. The executive vice-president, the deputy executive vice-president, and the general counsel of the Medical Society of the State of New York shall sit with the Judicial Council with voice but without vote.

SECTION 2. DUTIES AND PROCEDURES

A member of a component county medical society who shall have been disciplined or directed to suffer discipline in any degree by any final decision of his component county medical society and who shall have exhausted his right of appeal, if any, with a component county medical society, feeling aggrieved by the decision of such society, may appeal to the Judicial Council of the Medical Society of the State of New York from the decision of such component county medical society by filing a notice of appeal with the secretary of the State Society and with the secretary of such component county medical society within three months after such final decision by such component county medical society.

An applicant for membership in a component county medical society who has been excluded from membership in such society may likewise appeal from the action of said society.

The Judicial Council shall investigate also all charges preferred (a) by a member of a component county medical society against a component county medical society of which he is not a member; and (b) by a component county medical society against another such component county medical society or a member thereof.

A notice of appeal shall set forth in writing the name of the appellant, the name of such component county medical society and the date and substance of the decision appealed from, and shall indicate the ground or grounds upon which such appeal is taken. If the appellant desires to be present, with or without counsel, at the hearing of said appeal, the notice of appeal must so state. In that event, the appellant must file with the notice of appeal a bond in the sum of $500 to cover the costs of said appeal. If the appellant fails to appear in person or be represented by counsel on hearing of said appeal, he shall forfeit to the Medical Society of the State of New York such shares of said bond as represents necessary expenditures incident to convening the Judicial Council for the hearing of said appeal.

On filing a notice of appeal, the appellant and the component county medical society shall submit to the secretary of the Judicial Council all records, minutes, letters, papers, and all written evidence, including a digest of all testimony not stenographically reported relating to the matter. All data so submitted shall be available only to the Judicial Council.

The Judicial Council shall consider the appeal on the data so submitted to it and may affirm, modify, or reverse the decisions so appealed from by a majority vote of the members present and voting. If, in its opinion, the taking of further evidence is advisable, the Judicial Council may summon witnesses and proceed to take such evidence in such manner as it may deem proper and render its decision by a majority vote of those present and voting, which decision shall be final and binding. A member shall have the right of appeal to the Judicial Council of the American Medical Association.

Whenever the Judicial Council has met, the secretary shall report the proceedings to the Council of the Medical Society of the State of New York at its next regular meeting.

The chairman shall submit an annual report of the Judicial Council to the House of Delegates.

SECTION 3. MEETINGS

Immediately at the close of the annual meeting of the House of Delegates the Judicial Council shall organize and elect its own chairman.

The secretary of the Medical Society of the State of New York shall be the secretary of the Judicial Council.

The Judicial Council shall meet on the call of the chairman. The notices of the meetings of the Judicial Council shall state the date, place, and hour and shall be mailed postpaid to each member not less than ten nor more than fifty days before a meeting.

The affidavit of mailing of the secretary of the Medical Society of the State of New York to the last recorded address of the member of the Judicial Council shall be deemed sufficient proof of the service on each and every member for any and all purposes.

A quorum shall consist of three members of the Judicial Council.

ARTICLE VIII. ELECTIONS

As the first business of the last scheduled session of the annual meeting of the House of Delegates, the officers, councilors, and trustees of the Medical Society of the State of New York, and the delegates to the American Medical Association shall be nominated and elected.

A member of the Medical Society of the State of New York who is in arrears for component county medical society dues or State Society dues or assessments shall not be eligible for nomination to any office, the Council, the Board of Trustees, or as a delegate to the American Medical Association, or entitled to vote for any officer, councilor, trustee, or delegate.

The delegates to the American Medical Association shall be elected in the calendar year preceding the meeting of the House of Delegates of the American Medical Association to which they are elected. One half of the allotted number of delegates and alternate delegates shall be elected each year.

Nominations for delegate to the American Medical Association shall be made for not less than double the full number of delegates to be elected.

SECTION 1. BALLOTING

After the appointment of a sufficient number of tellers by the speaker and after all nominations have been made, the secretary of the Medical Society of the State of New York shall cause to be displayed in full sight of the House of Delegates a list of nominees for each office of the Medical Society of the State of New York and for delegates to the American Medical Association, arranged in alphabetical order, and shall also cause to be distributed a sufficient number of blank ballots for the use of the House of Delegates. These ballots shall have printed or stamped thereon the appropriate headings for each office with spaces thereunder in which may be written the name of the candidate or candidates to be voted for.

All elections for offices of the State Society and delegates to the American Medical Association shall be by ballot, each member of the House of Delegates depositing his ballot on roll call individually. When after the call for nominations from the floor, there is only one candidate for an office, the speaker shall direct the secretary to cast one ballot on behalf of the delegates. If there are more than two nominees for an office, with the exception of that of delegate to the American Medical Association, and none receives a majority of votes on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken for that office. This procedure shall be continued until one of the nominees receives a majority of the votes cast when he shall be declared elected.

For the election of delegates to the American Medical Association, the delegates shall be declared elected in the order of the highest number of votes cast until the allotted number shall have been chosen; a corresponding number in the next highest order of votes cast shall be declared alternate delegates.

When the full quota of elected delegates or alternate delegates is not available for attendance at the meeting of the House of Delegates of the American Medical Association, the president of the Medical Society of the State of New York shall appoint and certify a sufficient number to complete the quota.

A duly elected delegate to the American Medical Association who does not serve as such because of reduction in number of delegates to which the Medical Society of the State of New York is entitled shall fill any vacancy which may occur in the delegation before alternate delegates are designated for that purpose.

The delegates and alternate delegates shall take office at the beginning of the calendar year following their election and shall serve for a term of two years.

ARTICLE IX. REFERENDUM

At any meeting of the House of Delegates two thirds of the members present and voting may order a referendum vote of the Medical Society of the State of New York on any question consistent with the Bylaws and in accordance with such regulations respecting the submission of the question as the House of Delegates may prescribe.

The members of the Medical Society of the State of New York shall vote thereon by mail. The polls shall be closed at the expiration of fifteen days after the mailing of the question; and if the members voting shall comprise a majority of all the active and life members of the Medical Society of the State of New York, a majority of such vote shall determine the question and be binding on the State Society and the House of Delegates.

When the House of Delegates is not in session the Council may in a similar manner order such a referendum by a two-thirds vote.

ARTICLE X. COMMITTEES OF THE HOUSE OF DELEGATES

SECTION 1. REFERENCE COMMITTEES

At least one month before the meeting of the House of Delegates the speaker shall appoint and publish in the official publication of the Medical Society of the State of New York such reference committees as he shall deem expedient for the purposes of the meeting. Immediately after the organization of the House of Delegates he shall formally announce the appointments of the committees. Only members of the House of Delegates shall be eligible for appointment to the reference committees. Such committees shall each consist of five members, three members constituting a quorum, and shall serve during the meeting of the House of Delegates for which they are appointed.

Annual reports of officers, Council commissions and committees, Board of Trustees, Judicial Council, district branches, and special committees shall be printed at least one month before the meeting of the House of Delegates and sent to the members of the reference committees appointed according to paragraph 1, for their preliminary consideration.

All recommendations, resolutions, measures, and propositions presented to the House of Delegates and which have been duly seconded shall be referred by the speaker to the appropriate reference committees, except that reports of committees of the House of Delegates may, at the discretion of the House, be presented directly to the House without referral to the reference committees.

Each reference committee shall consider such business as may have been referred to it and shall report promptly to the House.

Any member of the Medical Society of the State of New York in good standing shall have the right to appear before any reference committee and participate in its deliberations.

SECTION 2. COMMITTEE ON BYLAWS

The House Committee on Bylaws shall be appointed annually by the speaker. It shall consist of at least five members including a chairman, all of whom shall be members of the House. The president, secretary, and the speaker shall be *ex officio* members with voice and vote. The executive vice-president, deputy executive vice-president, and general counsel of the Medical Society of the State of New York shall be members of the committee with voice but without vote.

It shall be the duty of the committee to study all proposed amendments to the Bylaws and the *Principles of Professional Conduct* of the State Society and to report thereon at the annual meeting of the House of Delegates following the meeting at which such amendments are proposed. The committee shall include in its report recommendations for action on the proposed amendments with reasons for such recommendations.

It shall be the duty of the committee to suggest amendments to or revisions of the Bylaws and the *Principles of Professional Conduct* of the Medical Society of the State of New York.

The report of the House Committee on Bylaws shall be presented directly to the House, without referral to a reference committee.

SECTION 3. SPECIAL COMMITTEES

Special committees may be created by the House of Delegates to perform the special functions for which they are created. They shall be appointed by the speaker or other officer presiding pro tempore over the meeting at which the committee is authorized.

ARTICLE XI. COUNCIL COMMISSIONS AND COMMITTEES

SECTION 1. ORGANIZATION

Committees of the Council are grouped by the related nature of their purposes and functions. A commission is composed of the chairmen of all committees within such a group.

Subject to the approval of the Council, the president shall appoint the chairmen and members of all of its committees and the chairmen of the commissions.

Any member of the Medical Society of the State of New York is eligible for membership on committees and commissions of the Council.

All chairmen of such commissions and committees shall have the right to present their reports in person to the Council and to engage in the discussion of such reports. Members of such commissions and committees shall have the privilege of presenting minority reports, and both the majority and minority reports shall be published.

Any *ex officio* member of a committee who enjoys that status by being a duly elected officer of the Medical Society of the State of New York shall have all the rights, responsibilities, and duties of any other member of the committee.

SECTION 2. NOMINATING COMMITTEE

The Nominating Committee shall be appointed by the president from a list of not less than three or more than five names submitted by the respective district branches, in conformity with Article V, Section 2, paragraph 3. It shall consist of 11 members, 1 from each district branch and 2 members at large.

In the event that a member of the Nominating Committee who has been selected as the representative of a particular district branch (or his alternate) shall be unable to attend the meeting of this committee, the president shall appoint an at large member, from the district branch whose representative is absent, to represent the interests of that district on the Nominating Committee. It shall be the duty of this committee to propose and nominate members of the Medical Society of the State of New York for all vacancies to be filled at the ensuing annual meeting of the House of Delegates. These recommendations shall be made to the House of Delegates in the same manner as prescribed in Article X, Section 1, paragraph 2.

SECTION 3. PROFESSIONAL MEDICAL LIABILITY INSURANCE AND DEFENSE BOARD

A committee to be known as the Professional Medical Liability Insurance and Defense Board shall be appointed by the president with the approval of the Council. It shall consist of nine members including a chairman, each appointed for a three-year term. No member shall serve for more than two consecutive terms. A vacancy created by expiration of a term shall be filled by the president, with the approval of the Council, by appointment of a member for three years. Other vacancies shall be filled for the unexpired term in similar manner. The secretary shall be an *ex officio* member of the committee with voice and vote. The treasurer shall be an *ex officio* member of the committee with voice but without vote. The general counsel and indemnity representative shall attend all meetings with voice but without vote. It shall be the duty of the committee to study and supervise, on behalf of the Medical Society of the State of New York, all matters having to do with professional medical liability insurance and defense.

SECTION 4. COMMITTEE ON PRIZE ESSAYS

A Committee on Prize Essays shall be appointed by the president with the approval of the Council. It shall consist of three members, including the chairman. It shall be the duty of this committee to receive all essays offered in competition for prizes which may be offered by the Medical Society of the State of New York. The committee shall make all necessary rules and regulations for the awarding of prizes, subject to the terms of the deeds of gift, and shall report the result at the next annual meeting of the House of Delegates. It shall give notice through the official publication of the State Society or by other methods of the amount of the prize and when the essays shall be submitted to the committee.

ARTICLE XII. SECTIONS AND SESSIONS

As designated by the House of Delegates, there shall be sections devoted to the scientific work of the Medical Society of the State of New York and sessions devoted to scientific, cultural, historical, or economic subjects. Both sections and sessions shall meet during the annual convention of the State Society, under the supervision of the Council.

SECTION 1. SECTIONS

The House of Delegates shall designate those scientific sections entitled to representation in the Medical Society of the State of New York. Such sections shall correspond to the Statewide specialty societies recognized by the Council of the Medical Society of the State of New York. These scientific sections designated by the House of Delegates shall organize at their annual meeting by the election of officers. Officers to be elected shall include a chairman, a vice-chairman, a secretary, and a delegate to the House of Delegates. The chairman, vice-chairman, secretary, and delegate must be members of both the Statewide specialty societies and the Medical Society of the State of New York and shall be elected for one year terms with the exception of the secretary who shall be elected for such term as the section may deem desirable.

Each of the Statewide specialty societies recognized by the Council of the Medical Society of the State of New York shall be requested to submit to the office of the Executive Vice-President the name of one nominee for each office of their corresponding sections not less than ninety days prior to the section's annual business meeting. Such nominees shall be voted on, together with all other nominees submitted, at the annual business meeting of the section. All such nominees must be members of the Medical Society of the State of New York.

To participate in the election of any section, a member of the Medical Society of the State of New York must be registered with such section.

Should the delegate of a scientific section be unable to serve in the House of Delegates, the chairman of the section shall designate a substitute delegate and shall so notify the secretary of the Medical Society of the State of New York in writing.

The officers of the various sections shall prepare programs for their section under the direction and subject to the approval of the Council.

No new section shall be created by the House of Delegates unless a session devoted to its subject matter or specialty shall have been held at at least two successive annual conventions.

SECTION 2. SESSIONS

A session shall be a single meeting of a group to discuss scientific, cultural, historical, or economic subjects, under the direction and subject to the approval of the Council.

Each session shall have a chairman and a secretary who shall be appointed by the president with the approval of the Council.

ARTICLE XIII. MEETINGS

SECTION 1. ANNUAL CONVENTION

There shall be an annual convention of the Medical Society of the State of New York to be held at a time and place designated by the House of Delegates or by the Council.

This convention shall include the annual scientific program which shall include the annual meetings of the sections and sessions, scientific motion pictures, and exhibits, and such other activities, and presentations as the House of Delegates or Council may direct.

The annual meetings of the Medical Society of the State of New York and the House of Delegates may or may not be held at such convention pursuant to the provisions of Article III, Section 3 of these Bylaws.

SECTION 2. ANNUAL MEETING OF MEDICAL SOCIETY OF THE STATE OF NEW YORK

The Medical Society of the State of New York shall hold its annual meeting at the last scheduled session of the House of Delegates, while the House is recessed following the annual elections. The president shall preside at this annual meeting of the State Society, which shall include the induction of the incoming president. The incoming president shall deliver his inaugural address at the annual meeting of the State Society.

Following the adjournment of the annual meeting, the House of Delegates shall reconvene to complete its agenda and receive the report of the tellers.

SECTION 3. SPECIAL MEETINGS

Special meetings of the Medical Society of the State of New York shall be called by the president on the request in writing of members entitled to cast ten per cent of the total number of votes entitled to be cast at such meeting. Such request must specify the date and month of such meeting, which shall not be less than two nor more than three months from the date of such written demand. The president of the Society upon receiving the written request shall direct the secretary to promptly give notice of such meeting. If the secretary shall fail to give such notice within five business days of such request, any member signing such request may give the required notice.

SECTION 4. ORGANIZATION AND PROCEDURES

The notices of the annual convention and annual and special meetings of the Medical Society of the State of New York shall state the date, place, and hour and shall be mailed postpaid to each member by first class mail not less than ten nor more than fifty days before a meeting.

Publication of such notice in the official publication of the Medical Society of the State of New York shall be considered as complying with this provision.

The affidavit of mailing by the secretary of the Medical Society of the State of New York to the last recorded address of the member shall be deemed sufficient proof of the service upon each and every member for any and all purposes.

Each member in attendance at the annual convention of the Medical Society of the State of New York shall enter his name and the name of the component county medical society to which he belongs in a register to be kept by the secretary of the State Society for that purpose. No member shall take part in any of the proceedings of such convention until he shall have complied herewith.

All members in good standing so registered may attend and participate in the proceedings and discussions of the scientific meetings of the Medical Society of the State of New York and of the sections and sessions.

A distinguished physician of a foreign country or a physician not a resident of this State who is a member of his own state medical association may become a guest during any annual convention upon the invitation of the president or officers of the Medical Society of the State of New York, and may be accorded the privilege of participating in all the scientific programs of the convention.

No address or paper before the Medical Society of the State of New York, except those of the president and president-elect, shall occupy more than twenty minutes in its delivery.

All papers read before the Medical Society of the State of New York at its annual convention by its members shall become the property of the State Society. Whenever such paper shall be deemed not acceptable for publication in the *New York State Journal of Medicine* it shall be returned to the author as promptly as possible after its receipt in the publication office of the State Society.

The following shall be the order of business at the annual meeting of the Medical Society of the State of New York:

1. Calling the State Society to order
2. Reading of minutes of the last meeting by title
3. Induction of incoming president
4. Inaugural address by incoming president
5. Adjournment

The rules contained in *Sturgis Standard Code of Parliamentary Procedure* shall govern the Medical Society of the State of New York in all cases in which they are not inconsistent or in conflict with the Bylaws of the State Society.

ARTICLE XIV. FUNDS

Funds shall be raised by annual dues levied on each active member at a uniform per capita rate throughout the State. Funds may also be raised in any other manner approved by the House of Delegates or by the Council when the said House of Delegates shall not be in session.

The approval of the Council and of the Board of Trustees shall be necessary for the expenditure of any funds of the Medical Society of the State of New York, except that the said Board may delegate, to such person or persons as it sees fit, the authority to expend funds of the State Society in amounts and under conditions to be determined by said Board, on recommendation of the Council.

ARTICLE XV. DUES

The annual dues shall be determined by the House of Delegates.

Assessments can be levied by the House of Delegates or the Council and shall be payable within a period of time specified by them.

The dues and assessments, of those active members who have been graduated from medical or osteopathic college not more than five calendar years, not counting active service in the armed forces of the United States or in the United States Public Health Service, shall be one third the amount levied on all other active members. The dues and assessments of those active members who have not completed their continuous residency training shall be one-tenth the amount levied on all other active members. In no case may an active physician continue to pay such reduced dues more than seven years after the date of graduation from medical or osteopathic school.

Life and honorary members shall not be required to pay dues or assessments to the Medical Society of the State of New York.

Annual dues are due and payable on the first day of January each year. The dues year shall coincide with the calendar year, January 1 to December 31.

Any member, except a member who is eligible for and has applied for life membership, whose component county medical society and State Society dues are unpaid after May 1 of any current year or whose assessments are unpaid by the specified time is not in good standing and shall be deemed to be in arrears.

A member whose dues are unpaid after June 1 of any current year or whose assessments are unpaid one month after the specified date shall be dropped from the roles of membership of his component county medical society and the Medical Society of the State of New York upon reasonable notice to such member by his component county medical society or the State Society, and without further action on the part of either the component county medical society or the State Society, and on such date he shall automatically cease to be a member of the component county medical society and State Society.

Dues and State Society assessments of a member elected or reinstated after October 1 shall be credited to the succeeding year, but no member dropped for nonpayment of dues and assessments shall be reinstated until he has, in addition, paid his dues and assessments for the year in which he was dropped.

The dues of an active or student member of the State Society may be remitted for the current year by action by the Council on account of illness, financial hardship, or temporary active service in the armed forces of the United States or in the United States Public Health Service, when the request for such remission is made by the member's component county medical society, except in the case of student members who shall make application for remission directly to the secretary. Such a request shall be accompanied by a brief summary of the reasons therefor. Remission of dues due to illness or financial hardship shall be reviewed annually.

ARTICLE XVI. EXPENSES

Allowances for expenses incurred in the actual performance of official duties by officers, councilors, trustees, members of the Judicial Council and of commissions and committees, delegates to the American Medical Association, and employees of the Medical Society of the State of New York shall be made in conformity with the following conditions.

The president and the president-elect shall be allowed a per diem and expenses when engaged on official business. The amount of the per diem shall be set by the House of Delegates.

All other officers, councilors, trustees, members of the Judicial Council, delegates to the House of Delegates of the American Medical Association or an alternate delegate who, at the direction of the Council, attends a meeting of the House of Delegates of the American Medical Association, members of commissions and committees of the Council, and of all special committees, members of the Medical Society of the State of New York appointed by the president or the Council to carry out special assignments for the State Society, and employees of the State Society shall be allowed traveling expenses when engaged on official business.

Members for life of the House of Delegates, delegates of the district branches, scientific sections, and student members, sitting in the House of Delegates, shall be allowed necessary expenses by the Medical Society of the State of New York.

Proper vouchers must be filed with the secretary of the Medical Society of the State of New York before any of the above allowances shall be made.

There shall be no allowances for the expenses, traveling or otherwise, for members of any reference committee.

Each district branch shall be entitled to receive a sum not to exceed $1,000 exclusive of the work done by the Medical Society of the State of New York regarding notices, programs, and so on, to defray the expenses of such district branch, provided a proper statement of such expenses shall have been presented to the secretary.

All bills, claims, or vouchers herein provided for shall be filed within thirty days after the date of the incurring of such expense. This time may be extended for any cause by the Board of Trustees.

ARTICLE XVII. DISTRICT BRANCHES

SECTION 1. DIVISION

The membership of the Medical Society of the State of New York shall be divided into nine district branches, as follows:

The First District Branch shall comprise the members of the Medical Societies of the Counties of Bronx, Kings, New York, Queens, and Richmond.

The Second District Branch shall comprise the members of the Medical Societies of the Counties of Nassau and Suffolk.

The Third District Branch shall comprise the members of the Medical Societies of the Counties of Albany, Columbia, Greene, Rensselaer, Schoharie, Sullivan, and Ulster.

The Fourth District Branch shall comprise the members of the Medical Societies of the Counties of Clinton, Essex, Franklin, Fulton, Hamilton, Montgomery, Saratoga, Schenectady, Warren, and Washington.

The Fifth District Branch shall comprise the members of the Medical Societies of the Counties of Cayuga, Chenango, Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, and St. Lawrence.

The Sixth District Branch shall comprise the members of the Medical Societies of the Counties of Broome, Chemung, Cortland, Delaware, Otsego, Schuyler, Tioga, and Tompkins.

The Seventh District Branch shall comprise the members of the Medical Societies of the Counties of Livingston, Monroe, Ontario, Seneca, Steuben, Wayne, and Yates.

The Eighth District Branch shall comprise the members of the Medical Societies of the Counties of Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, and Wyoming.

The Ninth District Branch shall comprise the members of the Medical Societies of the Counties of Dutchess, Orange, Putnam, Rockland, and Westchester.

Changes in the number or membership of these district branches may be made by a two-third vote of the House of Delegates at any annual meeting thereof.

SECTION 2. AIMS AND ORGANIZATION

The objectives of the district branches shall be to promote the scientific, social, cultural, and other interests of the medical profession within the district and to cooperate with the Council of the Medical Society of the State of New York in any way which that body may advise.

Each district branch may adopt a constitution and bylaws for its government and may amend them. The constitution, bylaws, and amendments shall not be in conflict with the Bylaws of the State Society and before becoming effective they shall be approved by the Council.

SECTION 3. OFFICERS AND ELECTIONS

Each district branch shall elect a president for two years and a delegate to the House of Delegates for two years, but with the approval of the Council a district branch may elect a president for one year.

Each district branch shall elect such other officers as are provided for in its bylaws. They shall attend the business meetings of the branch.

In the case of the inability of the delegate of a district to serve, the vice-president shall serve as delegate, and if the vice-president is unable so to function, the president shall designate a substitute delegate to serve and shall so notify in writing the secretary of the Medical Society of the State of New York.

Any elected officer of a district branch who is called into active service in the armed forces of the United States or the United States Public Health Service may, on application to the Council, be granted leave of absence for any portion of his term of office during which he is on active service. During such absence his duties shall be designated as the Council may direct, except where such delegation is already provided for elsewhere in the Bylaws.

The president of each district branch shall visit the component county medical societies of the district at least once during his tenure of office and make a careful inquiry of the condition of the profession in each county in his district and shall report thereon to the House of Delegates.

ARTICLE XVIII. COMPONENT COUNTY MEDICAL SOCIETIES

SECTION 1. DEFINITION

The term "component county medical society" shall include all county medical societies now in affiliation with the Medical Society of the State of New York or which may hereafter be organized and chartered by the House of Delegates. There shall be but one component county medical society in each county affiliated with the State Society. If there should be an insufficient number of physicians in any of the counties of this State to form themselves into a component county medical society, such physicians may become members of the component county medical society of an adjoining county when eligible by the constitution and bylaws of such component county medical society.

SECTION 2. MEMBERSHIP

Eligibility for membership in a component county medical society shall be determined by that society. Except by the approval of the Council no physician shall be an active member in a component county medical society other than that of the county in which he practices or maintains legal residence.

Whenever an active member in good standing or a life member in any component county medical society removes to another county in this State, his name on his request shall be transferred to the roster of the component county medical society of the county to which he removes, without cost to him, provided that he files a certificate with the secretary of the Medical Society of the State of New York, signed by the president and secretary of the component county medical society from which he removes as to his good standing in such society, and provided his application for membership has been acted on favorably by the members of the component county medical society of the county to which he has removed.

No physician shall be granted membership by any county medical society in any category of membership which has been created for the benefit of physicians who neither reside nor practice in such county, unless and until such county medical society verifies, with the Medical Society of the State of New York, the fact that the applicant currently holds either active, junior, or life membership in another county of this State. This requirement applies with equal force whether the category of membership on the local county medical society level be designated "associate membership," "affiliate membership," "corresponding membership," "nonresident membership," or by any similar designation.

No member shall be an active member of more than one component county medical society, nor shall any component county medical society accept as a member a physician who does not practice or have a residence in that county in any other way than in accordance with the law governing transfers.

SECTION 3. DUTIES OF OFFICERS

The secretary of each component county medical society shall keep a roster of its members in which shall appear the full name of each of said physicians, the date of his admission to such society, his residence, and the date when his license to practice medicine in this State was granted. He shall note any changes in said roster by reason of removal, death, or change of name, revocation of license, or other disqualification.

He shall forward said roster and information together with the names and places of residence of each of the officers of said society and the names and residences of each delegate to the House of Delegates from said society to the secretary of the Medical Society of the State of New York at least ninety days before the date of the annual meeting of said House of Delegates.

The treasurer of each component county medical society shall forward to the treasurer of the Medical Society of the State of New York the amount of the State Society per capita dues and/or assessments and the amount of all American Medical Association dues collected from members of his component county medical society as promptly as possible but in any event before the first day of May of each year.

SECTION 4. MEETINGS

Each component county medical society shall hold an annual meeting for the purpose of electing officers and a delegate or delegates to represent it in the House of Delegates of the Medical Society of the State of New York in accordance with the Bylaws.

The annual meeting of each component county medical society shall be held between January 1 and July 1 of each year at a time which it shall determine.

All officers of the component county medical society shall enter on their official duties between May 1 and July 1 at a date determined by the component county medical society and shall serve for a term of one year or until their successors shall have been duly elected and qualified.

SECTION 5. RESIGNATIONS

An active or life member in good standing whose resignation from membership in his component county medical society shall have been duly accepted, shall be considered to have resigned from the Medical Society of the State of New York.

When a member in good standing, other than a life or honorary member, ceases, between May 1 and December 31 of any year, to reside and practice in the State of New York, he shall be considered to have resigned from membership effective as of that December 31. If such cessation to reside and practice occurs between January 1 and May 1 of any year, he shall, provided he has been in good standing for the prior calendar year, be considered to have resigned from membership effective as of the previous December 31.

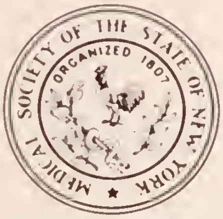
On resignation, a member shall forfeit all rights and title to any share in the privileges and property of the Medical Society of the State of New York, the district branch, and his component county medical society.

SECTION 6. CONSTITUTION AND BYLAWS

Each component county medical society shall adopt a constitution and/or bylaws for regulation of its affairs and may amend them. The constitution, bylaws, and amendments shall not be in conflict with the Bylaws of the Medical Society of the State of New York, and before becoming effective, they shall be approved by the Council.

ARTICLE XIX. SEAL OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

The seal of the Medical Society of the State of New York shall be as follows:


MEDICAL SOCIETY OF THE STATE OF NEW YORK
ORGANIZED 1807

ARTICLE XX. AMENDMENTS

Amendments to the Bylaws or to the *Principles of Professional Conduct*, except such as are obligatory by law, shall be made only at an annual meeting of the House of Delegates after having been submitted in writing at a previous annual meeting and having been published in the official publication of the Medical Society of the State of New York at least once and at least one month before the annual meeting at which action shall be taken.

The affirmative vote of two thirds of the House of Delegates present and voting shall be necessary for adoption of any amendment.

Amendments made necessary by law shall be made either by the Council or House of Delegates whenever such necessity exists.

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MEDICAL SOCIETY OF THE STATE OF NEW YORK
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Books Reviewed

Female Sterilization by Minilaparotomy and Open Laparoscopy. By A. Jefferson Penfield. Urban & Schwarzberg, Baltimore, 1980. Illustrated, 136 pages. Price,

The author is an expert in the field of family planning and he has had many innovative ideas relating to the technique of female tubal sterilization. In this book, Dr. Penfield describes "minilaparotomy" and open laparoscopy, procedures which he claims have many advantages over closed or conventional laparoscopy. In fact, the author states that he had not done the latter procedure since 1976. Dr. Penfield performs these operations mostly under local anesthesia in an out-of-the-hospital facility. His major objections to closed laparoscopy are the inherent dangers to "blind entry" into the peritoneal cavity which he states has caused hundreds of major vascular injuries. However, even open laparoscopy and "minilaparotomy" have complications as indicated by the author in one of his chapters. This reviewer believes that open laparoscopy does have a place in selected gynecologic situations, especially in the very obese patient or one who has had multiple previous abdominal operations.

The author advocates the rather unconventional use of room air for creating pneumoperitoneum, omits any reference to the significance of intra-abdominal pressure, and he employs the double ring applicator, called a Laparocator. This reviewer has not been favorably impressed with the instrument.

Penfield is quite emphatic that surgeons should be held accountable for major vascular or intestinal injuries caused by the needle or trocar during conventional or closed laparoscopy. Although the term "minilaparotomy" does not yet appear in medical dictionaries, it does seem to be a commonly used word. The author seems overly concerned with the medical-legal aspects and ethics of female sterilization.

Penfield solicited viewpoints from 16 well-known gynecologists engaged in female sterilization and of 13 replies, nine favored conventional laparoscopy and three others were also enthusiastic about "minilaparotomy." Only one respondent preferred "minilaparotomy" to conventional or closed laparoscopy for sterilization.

Some criticisms of this monograph include the paucity of references, the lack of references to the illustrations in certain chapters in the text, and the grammatical inference throughout the book that all gynecologic surgeons are male.

Casarett and Doull's Toxicology. The Basic Science of Poisons. Second edition. Edited by John Doull, M.D., Ph.D., Curtis D. Klassen, Ph.D., and Mary O. Amdur, Ph.D. New York, Macmillan Publishing Co., Inc., 1980. Illustrated, 778 pages. Cloth, $29.95.

The second edition of "Casarett and Doull's Toxicology" is an expanded, updated version of the excellent text that first appeared in 1975. That edition was a highly successful effort to present in a unified manner the multidimensional aspects which comprise modern toxicology.

The past few years have seen the rapid growth and transformation of toxicology from a hitherto relatively esoteric specialty into a basic, multidisciplinary science which is generating increasing interest in both the public and private sectors. While all areas of toxicology are so involved, the environmental and industrial branches have been witness to a particular surge of activity, as concern over the purity, quality, and safety of our total environment is now a paramount issue. In response to the complexity of the fundamental problems, modern toxicology draws on the analytic, chemical, biochemical, pharmacologic, and other clinical sciences. The interactions among the major branches of toxicology are increasing, thereby eliminating many of the traditional intra-disciplinary boundries and making important a broad knowledge of the entire field. Concurrently, we see the impact of the growth of regulatory toxicology and of the crucial role of toxicology itself in civil and criminal matters. The practicing toxicologist must be able to present and defend in a court of law both fact and informed opinion in a comprehensible and objective manner.

The need for basic texts which meet the complex, diversified academic and educational requirements of training programs in toxicology is obviously great. Happily, the present work can be highly recommended in this regard, not only to students at all levels, but also to those already in the field seeking information on specialties other than their own, and to all others in the medical sciences to whom toxicology is of interest or relevance.

The book is divided into five units: General Principles of Toxicology; Systemic Toxicology; Toxic Agents; Environmental Toxicology; and Applications of Toxicology. The chapters within each unit are written by specialists, and although not intended to be state of the art reviews, do in general offer an excellent overview of the particular specialty. Each chapter is also very well referenced.

The first part of Unit I provides a review of such basic topics as toxicologic testing and evaluation, drug pharmacodynamics and pharmacokinetics, drug metabolism and factors influencing toxicological interpretation. The last three chapters are excellent surveys of the principles and mechanisms involving chemical carcinogens, genetic toxicology, and teratogens. These topics are the basis of much of the current research and controversy in several areas of toxicology and pharmacology, and the material presented here should serve as a suitable introduction to the reading of the current literature. The chapter on genetic toxicology is new and reflects the growing awareness of the role of heredity in relation to the response to drugs and chemicals.

The toxic responses that develop in such specific systems of the body as the central nervous system, liver, kidney, respiratory system, eye, blood, and reproductive system are discussed in individual chapters in Unit II (Systemic Toxicology). Each chapter incorporates the basic physiological and pharmacological information necessary for an understanding of the mechanisms of the toxic actions. In general, the effects of specific types of drugs and chemicals are presented on the basis of which agents and metabolites produce a given toxicologically-induced pathological disorder, or in relation to organ structure and function. The role of organic and inorganic pollutants is well covered, particularly in the chapter on respiratory toxicology. With regard to the discussion of carbon monoxide poisoning in the chapter on the blood, I would like to see included in future editions the recent work (see Leo Goldbaum—Is Carboxyhemoglobin Concentration the Indicator of Carbon Monoxide Toxicity? in Legal Medicine Annual 1976, p. 165, which provides very strong evidence for a mechanism involving the unbound, circulating carbon monoxide as being responsible for the poisoning of the cytochrome system). Overall, each chapter is an excellent source of essential information, not usually available in most textbooks, on the nature, type, and mechanism of drug and chemical induced toxicity in a given system.

Unit III (Toxic Agents) is a comprehensive survey of the respective toxicologies of such classes of compounds as pesticides; metals; solvents and vapors; radiation and radioactive materials; plastics; toxins of animal origin; and phytotoxicology (plant toxins). These chapters are most useful to anyone seeking familiarity with the basic aspects of these topics. Unit IV (Environmental Toxicology) deals with food additives and contaminants, air pollutants, and water and soil pollutants.

The chapter on air pollutants is a very good introduction to the subject and should be read in conjunction with the chapter on toxic responses of the respiratory system as there is much overlapping and mutually relevant material.

The final unit, Applications of Toxicology, deals with the forensic, clinical, and occupational toxicologies and concludes with two chapters entitled regulatory toxicology and toxicology and the law. The chapter on forensic toxicology contains a concise assessment of the basic objectives, material requirements, problems of interpretation, and future trends of this field and, in addition, discusses the all-important relationship between the toxicologist and the legal system. The section on clinical toxicology provides an excellent survey of the symptoms and medical management of overdoses of a wide variety of therapeutic agents and chemicals. The discussion of occupational toxicology is a brief presentation of the basic problems of this area. The final two chapters offer an introduction to the role of the drug and chemical regulatory statutes, occupational, health, and safety codes, and so forth, with which most toxicologists should be more familiar.

While keeping in mind both the general design of the book and the editors concern for avoiding an excessively large text, this reviewer would nevertheless like to see the unit on Applications of Toxicology expanded. In particular, the chapters on forensic and occupational toxicology could be enlarged to provide more comprehensive discussion of some of the more relevant theoretical and practical problems. In addition, the growing frequency of involvement of drugs other than or in combination with alcohol, especially marijuana, in traffic accidents and fatalities warrants some discussion of this increasingly alarming problem. As methodology itself has become an important factor in the crucial areas of interpretation and reliability in toxicological testing, some discussion of the scope and limitations of the complex and sophisticated techniques and analytic instrumentation currently employed is relevant.

These points aside, Toxicology is an excellent, comprehensive, well-written text which provides essential information in all areas of this burgeoning field. It will no doubt find wide acceptance among students at both graduate and undergraduate levels, and it is highly recommended as a reference for all practitioners seeking basic up-to-date information in the specialty areas of toxicology. **Donald B. Hoffman, Ph.D.**

Breast Cancer. A Practical Guide to Diagnosis and Treatment. Edited by Louis Venet, M.D. New York, SP Medical & Scientific Books, 1979. Illustrated, 181 pages. Hardcover, $20.

Breast Cancer followed a multidisciplinary conference on the disease and is aimed at the practitioner as an update. The author of each chapter is obviously engaged in caring for patients with breast cancer and easily translates recent scientific discoveries into practical terms which allow direct application to patients.

As with any book written in a field where medical thought is changing as rapidly as it is in the field of the management of carcinoma of the breast, certain sections are outdated almost as soon as the text is complete. The broad experience of the contributors to this book minimizes the tendency for material to be dated and deals with methods and concepts which have withstood the test of time.

The various participants stress the need for the multidisciplinary team approach to the management of the disease. This is brought out in the chapters on mammography, mass screening, gynecologic role, psychiatry, nuclear medicine, pathology, surgery, radiation therapy, plastic surgical reconstruction, and medical management.

This book helps the clinician who must deal with patients with breast cancer today while awaiting the future developments of tomorrow. Covered in less than desirable detail is the diagnostic usefulness of computed tomography (CT scan) and details of operative technique, which, although available elsewhere, might appropriately be included in this volume. Illustrations in general are sparse except for the chapters on mammography and plastic surgical reconstructions. Finally, no mention is made of breast carcinoma in the male.

Breast Cancer is recommended as a sensible current review for the practitioner. **John M. Stein, M.D., F.A.C.S.**

Ethical Options in Medicine. By Gregory E. Pence, Ph.D. Oradell, N.J. Medical Economics Co., Book Division, 1980. Hardcover, 221 pages. Price, $17.50.

According to the author, the purpose of his book is to show the extent and complexity of some major moral problems in medicine. Dr. Pence emphasizes that the cases discussed in his book are not representative of everyday medicine; however they are intended to illustrate controversial moral problems that occasionally arise.

In chapter 2, entitled "Ethical Perspectives," the author thoroughly discusses the theory of virtues. He discusses Christian ethics, Kantian ethics, utilitarianism, Aristotelian virtues, and individualism. And then he puts forth his own idea of a modern theory of virtue necessary to help answer the problems that arise in medical ethics.

In chapter 3, entitled "Euthanasia, Death and Dying," the author states that the Hippocratic Oath morally obliges physicians to reject any form of euthanasia by quoting the

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following from the Oath: "Neither will I administer a poison to anybody when asked to do so, nor will I suggest such a course." My interpretation of this statement is that the physician should not use active euthanasia in his practice of medicine, because the sentence before this one in the Hippocratic Oath permits one to use passive euthanasia. The Oath states: "I will follow the system of regimen which according to my ability and judgment I consider for the benefit of my patients . . ." I believe the following from the prayer of Maimonides could be used in the discussion on euthanasia: "Let me be intent upon one thing, O Father of Mercy, to be always merciful to thy suffering children."

In his last chapter, Dr. Pence discusses the virtues of good physicians, which include temperance, compassion, professional competence, courage, phronesis or practical judgment, justice, and honesty.

In conclusion I can say that Dr. Pence attempts to solve all of his cases by using the philosophical approach. It is his hope that this book will introduce an analysis of virtues into cases in medical ethics and that this approach will be better for medical ethics than any other kind of theory. This book should be of interest to those philosophical ethicists, who are attempting to solve certain moral and ethical questions.

Meanwhile the common ethical problems encountered by the physician in his daily practice will still be answered by the physician ethical committees.

Sound Sleep. By Quentin R. Regestein, M.D. New York, Simon and Schuster, 1980. Cloth, 208 pages. Price, $10.95.

Quentin R. Regestein, M.D., is Assistant Professor of Psychiatry at Harvard Medical School and Director of the Sleep Clinic at Harvard's Peter Bent Brigham Hospital. Dr. Regestein is not accredited by the Association of Sleep Disorders Centers as a clinical polysomnographer—sleep disorders medicine's only formal certification for practitioners. The sleep clinic at Harvard's Peter Bent Brigham Hospital has not been certified by The Association of Sleep Disorders Centers as an accredited sleep disorders center—the only formal certification available for centers purporting to give diagnostic and treatment services for sleep disorders. However, Dr. Regestein has seen numerous patients with a complaint of insomnia at his sleep clinic.

With case materials gathered from his clinical experiences he has prepared a publication which must join the ever-increasing list of publications that can collectively be referred to as the "how to sleep books." This book, like others on the market, asks readers to begin a self-appraisal and a self-treatment program. The book asks about symptoms, provides self-scoring tests, and suggests techniques to improve sleep without pharmacologic or medical intervention. The most positive features of the book are: the detailed self-assessment questionnaires, a good discussion on the dangers of hypnotic drugs, the instructive use of case histories, the emphasis on proper sleep schedules, and the excellent easy-to-read style.

On the negative side, the book provides no scientific bibliography for interested readers. There are no outcome data on the treatment techniques suggested. And most important, Dr. Regestein seems to have forgotten one of the most important principles of medicine: diagnosis should precede treatment. It is not until page 154 that the author alludes to the importance of considering organic causes for the complaint of insomnia. The reader takes away the message that the book provides a useful and safe technique for the nonpharmacologic treatment of insomnia. It is assumed that most problems with insomnia are not associated with organic disorders and readers are encouraged to use this book in detail to attack their problem. Only if the book's techniques fail should the reader seek medical evaluation for insomnia. To this end, the author provides a list of specialists that may provide proper diagnosis.

This reviewer feels that the author has suggested an inappropriate course of action to insomnia sufferers. It seems to me that diagnosis, if at all possible, should come before treatment. I am uncomfortable with the real possibility of delays in correct diagnosis and treatment that this book might cause. Delays are particularly likely in individuals with sleep disorders such as sleep apnea and nocturnal myoclonus. Collective experience of the Association of Sleep Disorders Centers indicates that such disorders comprise around 15–20 percent of people presenting to Accredited Sleep Disorders Centers with the problem of insomnia.

Because of the above difficulties, I suggest that readers consider carefully the author's statement on the page before Chapter 1 in which the author disclaims any responsibility, medical or otherwise, for the care of people who read or use the book. Readers also should know that persistent sleep problems involving impairment of function should be evaluated by a trained sleep specialist. **Merrill M. Mitler, Ph.D.**

Prostate Cancer. Edited by Donald S. C. Coffey and John T. Isaacs. Geneva, Switzerland, International Union Against Cancer, 1979. UICC Technical Report Series, Volume 48. Illustrated, 289 pages. Paperback, Swiss Francs, 20. (Available from above organization at 3 Rue du Conseil General, Geneva, 1205.)

The UICC workshop on Prostatic Cancer was held in Geneva on October 23 to 26, 1978.

The purpose of the meeting was twofold.

(1) To provide an indepth discussion of the status and future directions of research designed to develope new methods of controlling prostatic cancer.

(2) To encourage the exchange of ideas of 12 world leaders in this field of cancer.

The practical points derived from the meeting were:

(1) Rectal examination is the best method of early detection of prostatic cancer.

(2) The RIA prostatic acid phosphatase is not an accurate screening test as many false negative results occur in patients with occult cancer, but the determination can be used as a follow-up guide.

(3) The use of irradiation is the method of choice in the treatment of prostatic cancer.

(4) Prognosis mainly depends on the biology of the tumors. Differentiated tumors do well and undifferentiated tumors do poorly. **Leonard B. Goldman, M.D., F.A.C.R.**

Pathology of Soft Tissue Tumors. By Steven I. Hajdu, M.D. Philadelphia, Lea & Febiger, 1979. Illustrated, 599 pages. Cloth, $65.

Dr. Hajdu is well qualified by extensive experience and wide knowledge of the literature in this field. His book is

continued on page 137

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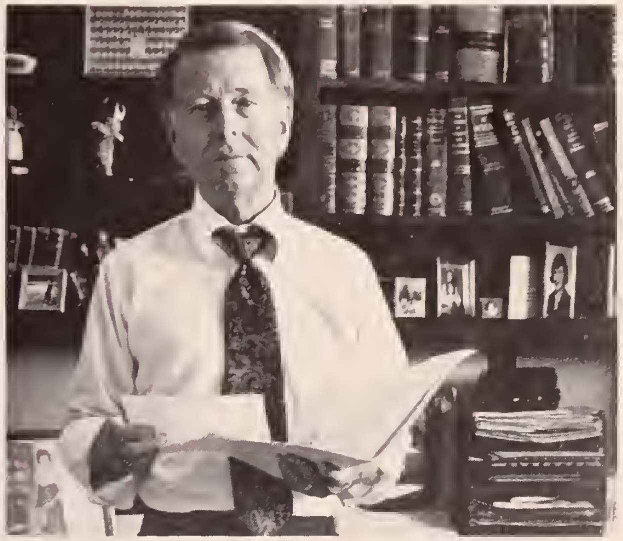

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ZINC IN HUMAN NUTRITION

Sharon Greeley, Ph.D.
Department of Nutritional Sciences
University of California
Berkeley, CA
and
Harold H. Sandstead, M.D.
United States Department of Agriculture
Science and Education Administration
Human Nutrition Laboratory
Grand Forks, N.D.

Nearly thirty years passed between the study demonstrating that zinc was an indispensable nutrient in experimental animals[1] and the detection of zinc deficiency in a human population[2]. Not until 1974 was zinc included in the Recommended Dietary Allowances although the suggested intake is second only to iron in the trace metal category[3]. Why was there such a long interval? The answer to this question rests with a number of factors.

Prior to the advent of atomic absorption spectroscopy in the late 1960s and its availability to clinical investigators, the analysis of zinc in biological materials was difficult. In addition, the wide distribution of zinc in the environment made the possibility of zinc deficiency in man seem very unlikely. Both the recognition that parakeratosis in pigs was due to zinc deficiency[4] and that zinc metabolism was abnormal in patients with cirrhosis of the liver[5] increased the awareness of the potential importance of zinc in human nutrition. Finally, the description of zinc deficiency in adolescent boys by Prasad, et al.[2] conclusively demonstrated the importance of zinc for man. Since then, there has been an ever increasing research effort and numerous reports of human zinc deficiency.

Level of Zinc Nutriture

Today, a major problem is the recognition of mild or marginal zinc nurtiture. Unless dietary zinc is low or poorly absorbed for a long period of time, plasma zinc tends to stay within the "normal" range[6,7]. Analysis of either plasma or hair in an individual provides the best means of diagnosing marginal zinc consumption. The reported normal range of hair or plasma zinc values is wide and varies with methods used by different laboratories[7]; therefore, cautious interpretation of an individual sample is required. While a low value usually is indicative of zinc deficiency, a normal value does not necessarily rule out the possibility of this deficiency[8].

At present, it appears that people in the United States are more apt to suffer from marginal zinc nutriture than from frank deficiency[9]. Hambidge, et al.[7,10] have shown in children in the United States that the effects of dietary zinc deprivation may be particularly striking, resulting in growth failure and loss of taste acuity. Clinicians, dietitians, and nutritionists are therefore faced with the difficult problem of identifying persons at risk of zinc deficiency based on knowledge of economic status, dietary habits and illnesses without the assistance of an absolutely reliable laboratory indicator. In some instances when the clinical setting strongly suggests the possibility of zinc deficiency, a careful therapeutic trial with zinc supplementation may be the only conclusive way of establishing the diagnosis.

Homeostatic adjustments tend to protect individuals from severe zinc depletion and make the diagnosis of marginal states difficult. The adjustments occur in intestinal absorption, distribution and excretion of zinc. Studies in animals suggest that the absorption of zinc from the intestine becomes increasingly efficient as dietary zinc declines[11]. This increased efficiency of absorption presupposes that dietary factors which may have a positive influence on zinc are adequate and factors which may inhibit absorption are not excessive. Homeostatic mechanisms can also induce the transfer of zinc from one tissue to another. During this process, the plasma zinc may be normal while the overall status is deficient[6]. Decreased excretion of zinc through urine, sweat or feces may also be part of an adaptive process to conserve available zinc[12].

Functions of Zinc

Zinc is present throughout the body in every tissue. The role zinc plays is different from tissue to tissue and multifunctional within single cells. We will discuss some general biologic functions attributed to zinc, and cite pertinent examples. At the molecular level, the three most general functional categories for zinc are: (1) as an essential component for metalloproteins, (2) as a cofactor in certain enzyme reactions, (3) as a structural component in macromolecules. These roles for zinc are by no means mutually exclusive and probably overlap in a number of areas.

The enzyme **carbonic anhydrase** was shown to be a zinc metalloprotein in 1940[13]. This enzyme found in red blood cells facilitates the removal of carbon dioxide, as bicarbonate, from tissues and transfers it to the lung where the gas is expired. In the kidney, the carbonic anhydrase is involved in the production of ammonium ion for excretion. A third carbonic anhydrase is found in the parietal cells of the stomach. Here the enzyme functions to produce gastric hydrochloric acid needed to maintain a low pH in the stomach. In the case of **carboxypeptidase A**, a complex enzyme-zinc-substrate has been identified. Carboxypeptidase is a proteolytic zinc metalloenzyme secreted by the pancreas in inactive form. Zinc is required in the actual catalytic reaction in which large peptides are converted into smaller ones. It is interesting that the activity of this enzyme is decreased early when rats are subjected to severe dietary zinc deficiency[14].

Investigations with experimental animals demonstrated that zinc functions as a **cofactor in the synthesis of collagen**[15]. This triple-stranded fibrous protein is produced in connective tissue where it helps to maintain the necessary rigidity of the tissue. Collagen is also found throughout the body where it serves to bind cells together in the formation of tissues. In addition to zinc, ascorbic acid, iron and copper must be present at adequate levels to ensure continued biosynthesis of functional collagen. Zinc may also be involved in the proteolysis of collagen. The neutral protease, **collagenase**, was shown to contain zinc. Furthermore, enzyme activity was depressed in the presence of certain chelating agents[16]. The metabolism of collagen provides an example of a system in which zinc is required for both synthesis and degradation.

Alkaline phosphatase is a zinc metalloenzyme found in various tissues including liver, intestine, bone, kidney, heart and placenta. The catalytic action of the enzyme is to hydrolyze the organic phosphates, but it may also be involved in the transfer of phosphate groups. Isoenzyme forms can be demonstrated electrophoretically or by changing conditions of the assay procedure[17]. Bone phosphatase is required for normal calcification processes but the biological functions of the other isoenzymes are less well-defined.

During the past fifteen years, attention has turned to the role of zinc in replication, transcription and translation of the genetic code. **Nucleotidyltransferases** are classified as enzymes which "polymerize" the appropriate nucleotides to form DNA and RNA Both DNA and RNA polymerases were reported to contain zinc in certain non-mammalian systems There is some evidence that the mammalian enzymes also depend on zinc for normal activity Other investigations suggest that zinc may serve in yet another capacity The **macromolecules**, DNA and RNA, may depend upon zinc for maintenance of structural integrity. Complex structures such as ribosomes, membranes, and microtubules may also be maintained intact and functional by the presence of zinc[17,18,19]

Populations Potentially at Risk

How do these molecular functions affect the overall well-being of an organism? A sort of biochemical priority system may determine which tissues or processes will be most sensitive to zinc deficiency. Cells which undergo rapid turnover or molecules which do not bind the metal tightly might be expected to relinquish zinc. The physiological state of an individual, such as active growth or tissue repair, may put additional constraints on the system.

Children and teenagers undergoing rapid growth change may be more susceptible to inadequate dietary zinc than adults. At the molecular level, growth involves cell division and protein synthesis The discovery of hypogonadal dwarfism in the Middle East[2,20] confirms that adequate dietary zinc and its absorption are necessary to support growth and testicular development. The adolescent growth spurt and sexual maturation apparently increases the zinc requirements of these individuals[9] and is in part responsible for the evolution of the zinc deficiency.

Similar reasoning leads us to suspect that **pregnant women** may be at risk of marginal or deficient zinc nutriture. Rapid cell division and growth which accompany embryogenesis and fetal development place an increased burden on homeostasis in women with a limited dietary zinc supply. In experimental animals, zinc deprivation during pregnancy decreases maternal plasma zinc, impairs fetal growth, decreases brain maturation and affects subsequent behavioral performance[21]. In humans, maternal serum zinc has been found to be one of several maternal predictors of the weight of the newborn[22]. **Pregnant teenagers** may be a particularly susceptible group. Zinc is needed for the continued growth of the young mother as well as the developing fetus. Additional roles for zinc during pregnancy have been suggested. Zinc concentrations in plasma taken from Scandinavian women at mid-pregnancy were reported to correlate with the outcome of pregnancy[23]. Women with abnormal labor and difficult childbirth had lower levels of plasma zinc. This observation is consistent with studies in pregnant rats[15,24] Studies in experimental animals have shown that the zinc requirements of the **suckling infant** must be supplied by the mother[25] Human infants must also obtain zinc from mothers' milk[26,27] or adequately supplemented formula

Certain disease conditions and various therapeutic treatments may alter zinc status[28] Acrodermatitis enteropathica (AE) is a genetic disorder involving zinc metabolism The symptoms include dermatitis, diarrhea, increased susceptibility to infection, growth failure and death Infants with the disease respond to human milk or pharmacologic supplements with zinc[26]

Zinc deficiency has been implicated in some taste and appetite disorders It has been suggested this may involve a zinc-containing protein which has been isolated from human parotid saliva[15] Some patients with impaired healing and low serum zinc have responded to supplemental zinc with acceleration of wound healing[17]. The response is consistent with the requirement of zinc for nucleic acid and protein synthesis and implies zinc deficiency in such patients Deficiency can be induced inadvertently when patients are fed parenterally or enterally without sufficient zinc[7,29,30,31]

Zinc Sources and RDA

The ubiquitous nature of zinc deficiency and the disorders associated with it are good evidence for the importance of adequate zinc intake in the diet Americans are moving towards food with fewer calories and some derive the bulk of their nutrients from vegetables. Zinc is generally considered to be less available from plant sources (beans, nuts, whole-grain cereals and fruits) than from animal sources (organ meats, liver, oysters and muscle meats)[24]. Associated factors such as phytate (an effective chelator for divalent metals) and fiber may be responsible for this relatively lower availability. Bioavailability was taken into account when the World Health Organization suggested provisional dietary requirements for zinc[32]. In the United States the Recommended Dietary Allowances (RDA) for zinc are 10 mg for children ages one through ten years and 15 mg for people eleven years of age or older[3]. Nutritionists and those in the health fields must encourage Americans to select diets which will ensure a proper balance of nutrients and provide adequate zinc[33].

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Neurological aspects of movement disorders

"The Movement Disorders—Update 1981" will be presented at the Sloman Lowenstein Auditorium, Hillside Division, Long Island Jewish-Hillside Medical Center on February 6 from 8:30 a.m. to 4:30 p.m.

This continuing medical education offering meets the criteria for 6 credit hours in Category 1 of the Physician's Recognition Award of the American Medical Association and meets the criteria for 6 hours of LCCME Category 1 credit.

The program is sponsored by the Department of Psychiatry of the Long Island Jewish-Hillside Medical Center. For further information, contact: Continuing Education Coordinator, Long Island Jewish-Hillside Medical Center, Lakeville Road, New Hyde Park, New York 11042; telephone (212) 470-2114.

30th Annual scientific session

The American College of Cardiology will hold its 30th Annual Scientific Session in San Francisco, California, March 15–19, 1981.

Mini-courses will lead off the program on Sunday, March 15, with the Opening Plenary address scheduled for the following morning. The Session will continue with reports on original investigation in the cardiovascular sciences, structured Symposia, and the highly clinically-oriented Core Curriculum, luncheon, and Fireside panel discussions.

The Program Committee for the College's 1981 Session is under the co-chairmanship of Emilio R. Giuliani, M.D., and Dwight C. McGoon, M.D., both of Rochester, Minnesota.

Among other events will be the Annual Convocation on Wednesday, March 18, followed by the Annual Dinner-Dance. Some 1,000 newly and formerly elected Fellows will be inducted into the American College of Cardiology at the Convocation.

President of the College is Robert O. Brandenburg, M.D., Rochester, Minnesota. Dan G. McNamara, M.D., Houston, Texas, is President-Elect.

Further information about the 30th Annual Scientific Session can be obtained from the Annual Scientific Session Department, American College of Cardiology, 9111 Old Georgetown Road, Bethesda, Maryland 20014.

Upcoming continuing education courses

Some of the upcoming continuing education courses sponsored by the American Society for Surgery of the Hand in 1981 of interest to New York State physicians are: March 25 to 28, at Philadelphia, Pennsylvania, at the Benjamin Franklin Hotel: "Hand Rehabilitation" correlated with "Hand Surgery," a symposium and workshop designed to present to the physician and the therapist a unique opportunity to correlate the concepts, indication, surgical techniques, and pre- and postoperative care of the injured and disabled hand. The course chairmen are: James M. Hunter, M.D., Lawrence H. Schneider, M.D., and Evelyn J. Mackin, L.P.T.

"Difficult Reconstructive Problems in Hand Surgery" will be presented March 28 to April 14 at The Mark Resort, Vail, Colorado. This course is planned for general, orthopedic, and plastic surgeon experienced in hand surgery, and house officers trained in hand surgery. On successive mornings, 7 to 10 a.m., lectures will be given on the following five subjects: nerve injuries, congenital deformities, fractures and dislocations, soft tissue injuries, tumors of the hand. From 5 to 8 each evening small group sessions will be devoted to discussion of the day's topic and to related case presentations. Each of these discussion groups will be led by two faculty members. Course chairmen are: Earl Z. Browne, Jr., M.D., and Richard J. Smith, M.D.

Richard I. Burton, M.D., and Robert M. McCormack, M.D., are the course chairmen for "The Thumb—Afflictions and Reconstructions," being held May 14 to 16 at Rochester, New York. This course is planned for the orthopedic, general, or plastic surgeon who has had considerable interest and experience in reconstructive hand surgery, and for the career hand surgeon, and will deal exclusively with the thumb and will cover anatomy and the kinesiology of complex reconstructions of various types of deformities, disabilities, and injuries. The course will have a small faculty and ample time for panel and group discussion.

Course on eye disease

The Department of Ophthalmology, Lenox Hill Hospital, will hold a course on "External Diseases of the Eye," April 9 and 10, at the Einhorn Auditorium. This course is accredited for 16 hours in Category 1 of the Physician's Recognition Award of the American Medical Association.

For further information on registration and accommodations, contact: Lori Dioszeghy, Office Manager, Department of Ophthalmology, Lenox Hill Hospital, 100 East 77th Street, New York, New York 10021; telephone (212) 794-4726.

Fourth annual geriatric medicine seminar

The Department of Long-Term Care Medicine, Kingsbrook Jewish Medical Center, has scheduled its fourth annual geriatric medicine seminar on "Geriatric Cardiology: Update 1981" for April 14. The seminar is co-sponsored by the Office of Continuing Education of the State University of New York Downstate Medical Center for the American Medical Association Category 1 credit toward the Physician's Recognition Award. Being requested are co-sponsorship by the American Geriatrics

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Material for inclusion in the medical meetings section must be received eight weeks prior to publication date.

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Society and the American Academy of Family Physicians.

For additional information: Morris Kleinfeld, M.D., Director, Department of Long-Term Care Medicine, Kingsbrook Jewish Medical Center, Rutland Road and East 49th Street, Brooklyn, New York 11203; telephone (212) 756-9700.

Fifth Annual spring weekend

The Department of Radiology, Downstate Medical Center, is presenting the fifth annual spring weekend symposium on "Diagnostic Ultrasound" on May 1, 2, and 3 at the Vista International Hotel, New York City. Category 1 credit, 20 hours, ACOG cognates and ASRT credit are available.

For further information contact the Department of Radiology, State University of New York Downstate Medical Center, Box #1192, 450 Clarkson Avenue, Brooklyn, New York 11203; telephone (212) 270-1602.

Renal Biopsy Pathology in Medical Disease

A program entitled, "Renal Biopsy Pathology in Medical Disease" will be presented by the Department of Pathology, University of Texas Health Science Center at Dallas on April 30–May 2 (Thursday–Saturday), 1981, on the Campus. The three (3) day program will include lectures by Jacob Churg, M.D., Professor of Pathology, Mount Sinai School of Medicine, New York, N.Y., who will speak on diseases producing nephrotic syndrome, membranous glomerulonephritis, nil disease, and focal glomerulosclerosis. Conrad Pirani, M.D., Professor of Pathology, Columbia University, New York, N.Y., will discuss pathology of the tubules, lupus nephritis, and post-infectious glomerulonephritis. Robert Heptinstall, M.D., Professor of Pathology, Johns Hopkins University School of Medicine, Baltimore, Maryland, will discuss interstitial nephritis and hypertensive renal disease. Other faculty include Tito Cavallo, M.D., University of Texas Medical Branch at Galveston, M. A. Venkatachalam, M.D., University of Texas Health Science Center, San Antonio, and members of the clinical faculty of the University of Texas Health Science Center at Dallas.

The program is designed for pathologists, nephrologists, internists, and other physicians with special interest in recent advances in diagnosis of medical renal disease. Clinicopathologic correlations will be emphasized.

Application is being made for 22 hours of Category 1 credit of the AMA and LCCME.

For further information please write Dr. Edwin H. Eigenbrodt, Department of Pathology, University of Texas Health Science Center at Dallas, 5323 Harry Hines Blvd., Dallas, Texas 75235 or call (214) 688-2133.

Diagnostic radiology postgraduate course

"General Diagnostic Radiology/Postgraduate Course" will be held June 28 to July 4, Dublin, Ireland. Fulfilling all I.R.S. requirements for deductible study abroad and conforming to the Category 1 criteria (30 hours credit) specified by the A.M.A., for Physicians's Recognition Award.

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Emergency Medicine Foundation

The Emergency Medicine Foundation will be accepting applications for grants beginning January 1. The applications will be considered for funding in the 1981–82 fiscal year, and must be received at the Foundation's Headquarters before June 1, 1981. The funding cycle was recently announced by Harris B. Graves, M.D., during the Annual Meeting of the Foundation recently held in conjunction with the Annual Scientific Assembly of the American College of Emergency Physicians.

The Foundation was organized in 1972 by the American College of Emergency Physicians and is the research and education arm of emergency medicine. In 1977 it was expanded to include representatives from the Emergency Department Nurses Association and the University Association for Emergency Medicine. In addition, representatives serve on the EMF Board of Trustees who are leaders in the National Association of Emergency Medical Technicians and the Society of Teachers and Emergency Medicine.

The primary purpose of the Foundation is to improve the availability and quality of emergency medical services through research and education.

Criteria for grants and applications may be obtained by writing: Emergency Medicine Foundation, Post Office Box 61911, Dallas, Texas 75261, or calling (214) 659-0911.

Continued increase in TB cases

New York City Health Commissioner Reinaldo A. Ferrer, M.D., recently announced that 1,238 suspected cases of pulmonary tuberculosis were reported in the City for the first nine months of 1980. This represented a one percent increase over the 1,221 cases reported for the same period in 1979.

"Much of this increase," said Dr. Ferrer, "is attributed to a continued rise in the transmission of the tuberculosis bacilli from person to person, particularly among the young. For example, during the first half of 1980 age group 0–4, 5–9, 10–14, and 15–24, all showed an increase over 1979."

"What is significant about this increase," said Dr. Alje Vennema, Director, Division of Tuberculosis, "is that contrary to popular belief, there is still evidence of high tuberculosis morbidity among New York City residents.

"With the recent employment of much needed field personnel," continued Dr. Vennema, "the Health Department's TB Control program is able to conduct a more intensive control program. To prevent the spread of tuberculosis, greater emphasis is now being placed on enforcing treatment compliance and the rapid identification and examination of contacts. Because the Tuberculosis Control field force is still relatively inexperienced, maximum impact on the TB problem is not expected until next year. The size and the complexities of the present disease prevalence do not permit an accurate prediction of when the disease will be truly under control in New York City."

Material for inclusion in the medical news section must be received eight weeks prior to publication date.

35,000 physicians test their medical knowledge

Over 35,000 physicians voluntarily tested their medical knowledge recently and compared their scores with like-minded colleagues. The physicians were participants in a year-long course of study known as the MKSAP (Medical Knowledge Self-Assessment Program).

The MKSAP concept, developed by the ACP (American College of Physicians) in the 1960s and now in its fifth edition, was the first comprehensive self-evaluation program designed to help practicing physicians review current medical thought and update their medical knowledge. The MKSAP began a whole new era of medical education for physicians—self-testing. Today, many medical specialty societies offer MKSAP-type programs to their members. These include surgeons, pediatricians, family practitioners, and psychiatrists.

"The half-life of medical knowledge is generally regarded as only five years," commented Robert H. Moser, M.D., F.A.C.P., Executive Vice President of the ACP. "The explosion of technology has made it impossible for any one physician to know everything that is going on in the broad expanse of medicine. Though no one physician can be proficient in all the subspecialties of internal medicine, he or she should be aware of current medical thinking and concerned about the areas where they may need some review. Thus, one of the primary purposes of the MKSAP is to help physicians fill in the 'gaps' in their medical knowledge."

The MKSAP is published every three years by the ACP as an independent volume. The program features a syllabus—a fact-filled text that details the developments in medicine within the last five years—and self-administered tests for each chapter or subject. Following completion of the test, the physician may send the answer sheet into the College for computerized scoring. The physician-student is then able to compare his or her scores against those colleagues in each of the 12 subspecialties of internal medicine: coronary heart disease; allergy and immunology; dermatology; glandular disease and metabolism; digestive diseases; blood diseases; infectious diseases; kidney diseases, nerve disorders; tumors; lung diseases; and arthritis, joint, and muscle problems.

Also included in the MKSAP are patient management problems (PMPs). These practical problems, which simulate actual bedside situations, are designed to test physicians' ability to combine present knowledge with the latest developments in medicine as outlined in the MKSAP text. The test questions focus on a specific patient and oblige the physician to gather information, make a diagnosis of the problem or problems, and then determine the course of treatment along with the costs to the patient.

Recently, work began on the next edition, MKSAP VI,

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The XV International congress of Radiology in Brussels, June 23 to 27, can be tied in with the Dublin-Year II program.

Early registration is advised. The cut-off date for reservations is May 1. For complete information on the travel portion of the meeting program, the pre- and postmeeting tours, contact: Gallagher/World, Inc., 420 Lexington Avenue, New York, New York 10017; telephone (212) 986-1277.

10th international symposium of the Fulton Society

The 10th international symposium of the Fulton Society on "Developmental Neurobiology" will be held September 22 in Kyoto, Japan, along with the 12th World Congress of Neurology.

For further information write to: Professor Dr. Victor Soriano, Calle Buenos Aires 363, Montevideo, Uruguay.

Forensic sciences symposium 1981

A "Forensic Sciences Symposium 1981" will be held Monday to Friday, July 6 to 10. The course director is Michael M. Baden, M.D.

This symposium is for medical examiners, coroners, coroner/physicians, pathologists, attorneys, and law enforcement officers. It provides a concentrated intensely practical review and updating of major subjects in the forensic and investigative sciences. Summary presentations and follow-up workshops are specifically designed to meet the everyday needs of the forensic practitioner and law enforcement personnel. There is a written course syllabus.

For information: New York University Post-Graduate Medical School, 550 First Avenue, New York, N.Y. 10016.

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comprehensive; the illustrations are of high quality; the references and tables are excellent. Pathologists and oncologists in particular will find this work useful and every medical library should have it on its reference shelf.

Earlier classifications are presented and Dr. Hajdu has modified and added to them, and has produced his own. It has the virtue of grouping these lesions in a way that provides a useful basis for diagnosis, prognosis, and treatment. It will be widely criticized but this too is useful and I am sure Dr. Hajdu expects this and will welcome it as a means to further and better concepts and organization.

It is unfortunate that the book is so difficult to read. There are many confusing and awkward passages that require re-reading and careful study before their meaning can be extracted. This can be corrected by more careful editing in future editions.

Dr. Hajdu's book, despite this one cavil, is highly recommended. **Charles F. Begg, M.D.**

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U.S. Department of Labor

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scheduled to be released in three installments beginning in late 1982. Over 100 physicians, acknowledged leaders in their fields, will begin the task of reviewing the current medical literature, writing the syllabus textbook, devising the test questions and patient management problems, and suggesting further reading for the physician-student subscribers.

Several new features will be incorporated into MKSAP VI. One will be a new chapter on drug usage. Another will be on selected topics in internal medicine covering the periodic health examination, emergency medical care, medical problems related to aging, psychiatric and psychosomatic disorders, and other aspects of medical care.

Serving as general chairman for the MKSAP VI will be Norton J. Greenberger, M.D., F.A.C.P., chairman of the Department of Medicine at the University of Kansas School of Medicine in Kansas City. Reappointed editor was Calvin F. Kay, M.D., M.A.C.P., clinical professor of medicine at the University of Pennsylvania School of Medicine in Philadelphia.

The following physicians from the State of New York have been named to develop the American College of Physicians sixth Medical Knowledge Self-Assessment Program: *Cardiovascular Diseases*: J. Thomas Bigger, Jr., M.D., F.A.C.P., Columbia University, New York; *Clinical Pharmacology*: Marcus M. Reidenberg, M.D., F.A.C.P., Cornell University Medical College, New York; *Gastroenterology*: John A. Balint, M.D., F.R.C.P., Albany Medical College of Union University, Albany; *Hematology*: Marshall A. Lichtman, M.D., F.A.C.P., chairman; University of Rochester School of Medicine, Rochester; Edward S. Henderson, M.D., Rosewell Park Memorial Institute, Buffalo; Victor J. Marder, M.D., F.A.C.P., University of Rochester School of Medicine, Rochester; *Infectious Diseases*: R. Gordon Douglas, Jr., M.D., F.A.C.P., University of Rochester School of Medicine, Rochester; Harold C. Neu, M.D., F.A.C.P., Columbia University College of Physicians and Surgeons, New York; *Oncology*: John Horton, M.B., Ch.B., F.A.C.P., Albany Medical College, Albany; Franco M. Muggia, M.D., F.A.C.P., New York University Medical Center, New York; *Pulmonary Diseases*: Robert A. Klocke, M.D., Erie County Medical Center, Buffalo.

Publication of proceedings

The National Institute on Aging is pleased to announce the publication of the proceedings of the *Second Conference on the Epidemiology of Aging*. This conference, held in Bethesda, Maryland, was a collaborative effort by the National Institute on Aging and the National Heart, Lung, and Blood Institute to set the groundwork for an effective program of research which extends far beyond the study of how aging relates to the incidence and prevalence of diseases occurring in the later years of life.

The major areas of discussion included in the publication are: definitions of aging; biomedical correlates of aging; social, psychological and functional correlates of aging; demographic trends and health care implications; and a summary which makes recommendations for future research.

Single complimentary copies of the *Second Conference on the Epidemiology of Aging* may be obtained by writing to: Expand Associates/NIA/Epid, 8630 Fenton Street, Suite 508, Silver Spring, Maryland 20910.

List of animal carcinogens available

For the first time, a complete list of all known human and animal carcinogens is available to the general public. Information such as this is often scattered in various places. It often requires hours of research just to find out if one particular chemical can cause cancer.

The Carcinogen Information Program has compiled lists of human and animal carcinogens released by the International Agency for Research on Cancer, the U.S. Environmental Protection Agency, and the U.S. Occupational Safety and Health Administration. This master list is now available as our bulletin #14. Beside chemical names, the Chemical Abstract registry number is given and a reference code telling which agencies rated the chemical as carcinogenic.

This list is invaluable both to health specialists and to the general public. This list can be obtained free of charge. Your readers can receive this CIP bulletin simply by sending us a long self-addressed, stamped envelope (it is important that they do send us a self-addressed, stamped envelope as our mail is often overwhelming).

Here and there

Appointed: Joseph Goodgold, M.D., has been appointed chairman (acting) of the Department of Rehabilitation Medicine, New York University School of Medicine, and director, Rehabilitation Medicine Services, at New York University Medical Center and University Hospital.

Awarded: Joseph H. Burchenal, M.D., director, Clinical Investigation, Memorial Sloan-Kettering Cancer Center, received the fifth annual Gottlieb Award and delivered the Gottlieb Memorial Lecture on November 5, at M. D. Anderson's 25th annual Clinical Conference . . . Michael I. Cohen, M.D., F.A.A.P., professor of pediatrics, Albert Einstein College of Medicine, was awarded the 1980 American Academy of Pediatrics' Adolescent Health Award.

Dedicated: The Dr. Eugene J. Lippschutz Conference Center, at the State University at Buffalo School of Medicine was dedicated on September 22. Dr. Lippschutz had served as provost and associate vice president for health sciences from 1970 until his retirement in 1979.

Elected: Stephen L. Gumport, M.D., consultant, Division of Oncology, Department of Surgery, New York University Medical Center, was recently elected President of the American Cancer Society, New York City Division . . . Robert P. Reinicke, M.D., Albany, was elected secretary for governmental relations of the American Academy of Ophthalmology at its annual business meeting in November.

Honored: Alan H. Friedman, M.D., director of eye pathology laboratory, Mount Sinai School of Medicine; Heskel M. Hadd, M.D., Herbert M. Katzin, M.D., Marvin F. Kraushar, M.D., New York City; Henry Samuel Metz, M.D., University of Rochester; Edward Leon Raab, M.D., and Lawrence A. Yannuzzi, M.D., New York City, received the American Academy of Ophthalmology's 1980 Honor Award for outstanding service to their profession.

Selected: Sheila B. Blume, M.D., director, New York State Division of Alcoholism and Alcohol Abuse, and president, the American Medical Society on Alcoholism has been selected as a member of the National Commission on Alcoholism and Other Alcohol Related Problems.

Month in Washington

From now until mid-January the most-used word in the nation's capital will be transition. Reagan people—or allegedly Reagan people—will swarm about the town with knowing looks as to who's on first base, tapping briefcases bulging with position papers, and bright new ideas for a brave new government.

To the purist, the word "interregnum" is preferable to "transition" in describing the Washington scene—for indeed there is an interval between two successive reigns, a suspension of administrative function.

Reagan said he wants his administration to "hit the ground running" when it takes office January 20.

The selection of the cabinet dampened the fire of speculation about the tone and tenor of the incoming administration in this town that hasn't had any practice in dealing with a Republican from the conservative wing of the party.

Reagan has been supplied with detailed position papers on health policy from his advisory group for use in charting his administration's course next year. A transition team is working with President Carter and his aides on the transfer of power. The proposed federal budget for the fiscal year that starts next October is almost completed. And now the Reagan officials will have their whack at it. Usually a new administration doesn't do much tampering with the carryover budget.

In a move to lay the groundwork for early action, Reagan appointed six people to review the federal structure with an eye to lower level appointments and possible reorganizations. Elizabeth Dole, wife of Senator Robert Dole (R., Kans.) and former member of the Federal Trade Commission, will handle human resources including the HHS (Health and Human Services) Department, the Housing and Urban Development Department, and the Department of Education.

Reagan has indicated opposition to the separate Department of Education that was established to carry out a controversial campaign pledge by President Carter aimed at wooing the votes of teachers. And there has been renewed talk about reorganizing the HHS Department in order to put more emphasis on health and less on its welfare functions.

Reagan's health advisory group, headed by William Walsh, M.D., president of Project Hope, has proposed a pool arrangement for private health insurance companies under which insurance would be made available to people whose disabilities make them uninsurable at present.

They would pay premiums which would be subsidized, if necessary, by the rest of the insured population.

Other recommendations included:

—Allowing Medicare-Medicaid beneficiaries to choose private coverage with premiums paid by the government.

Prepared by the Washington, D.C., office of the American Medical Association.

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Special Articles

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Abstracts

Berson, B. L.: Arthroscopy of knee; diagnostic and therapeutic value, **New York State J. Med.** 81: 17 (Jan.) 1981.

A review of 220 consecutive arthroscopic knee examinations performed at The Mount Sinai Hospital were correlated with clinical and arthrographic findings for meniscal lesions. They revealed higher rates of diagnostic accuracy with arthroscopy when compared with clinical or arthrographic diagnoses. A high incidence of anterior cruciate ligament ruptures with or without concommitant collateral ligament or meniscal injuries was observed, as well as acute peripheral meniscal separations. Prompt repair of acute ligament rupture or peripheral meniscus detachment is advocated. Diagnostic arthroscopy with biopsy has been of value in previously undiagnosed knee problems. The role of operative arthroscopy provides opportunity for great advancement in treating many knee problems including meniscal lesions, patellofemoral abnormalities, loose bodies, synovial plica, and other conditions.

Bartsich, E. G., and Dillon, T. F.: Acute pelvic inflammatory disease; laparoscopic assessment, **New York State J. Med.** 81: 25 (Jan.) 1981.

The diagnosis of pelvic inflammatory disease shows poor correlation between clinical examination and actual physical findings on laparoscopy. Eighty-one patients with clinical diagnosis of pelvic inflammatory disease underwent laparoscopic examination. In only 49 patients (60.5 percent) was this diagnosis confirmed by laparoscopy. With liberal use of laparoscopy, unnecessary treatment can be avoided and definitive therapy would not be delayed.

Vlachakis, N. D., Pratilas, V., and Pratila, M.: Raised plasma catecholamines; possible consequences, **New York State J. Med.** 81: 27 (Jan.) 1981.

In 24 nonsurgical subjects plasma catecholamines and platelet aggregation were studied at rest and during isometric handgrip exercises. Additionally, plasma catecholamine concentration and platelet aggregation were measured in 10 subjects during norepinephrine infusion. Also, in 28 surgical patients the extent of plasma NE (norepinephrine) and E (epinephrine) changes during and after cardiovascular or abdominal surgery was determined. The percent of light transmission of 1 micromol ADP (adenosine diphosphate) final concentration and the minimal concentration of ADP to induce irreversible aggregation (threshold) at 300,000 mm.^{3} platelets were used to determine platelet aggregation. The infusion of NE significantly increased plasma NE and platelet aggregation and there was an inverse correlation between NE increase and threshold decrease (refactorum = 0.69 $P < 0.05$). A twofold increase in plasma catecholamine concentration, attained during exercise, was associated with a significant increase in platelet aggregation. Major surgery induced elevation in plasma catecholamine concentration similar to that attained during exercise. It is possible that the raised catecholamines induced by surgery could contribute to platelet abnormalities which may in turn participate in the initiation of venous thrombosis frequently seen in the postoperative period.

Fribush, M. A.: Mental illness; involuntary admissions in New York State, **New York State J. Med.** 81: 37 (Jan.) 1981.

This article is written to serve as a brief guide to procedures of involuntary admission and their associated legal liability. Several suggestions are made to help minimize physician liability risk. Recent court decisions have upheld the validity of involuntary admission for protection of the mentally ill and the community. Since the legislature has ceded part of the judicial process directly to physicians, awareness of how to properly utilize these procedures is needed by primary care and emergency care physicians in New York State.

Schwartz, A. H., Perlman, B. B., Paris, M., and Thornton, J. C.: Private psychiatric participation in Medicaid; practitioner ebb and flow, **New York State J. Med.** 81: 42 (Jan.) 1981.

To research financial and provider dynamics within the private psychiatric sector of Medicaid, complete data were obtained for the years 1971 to 1975 from the City of New York Bureau of Medical Assistance; expenditures rose from $2 million to $7 million during those years. The data revealed: (1) High registration but poor participation, (2) most participate at low dollar levels, median payments never exceeding $3,000, with never more than 30 percent receiving more than $10,000, and (3) when fee schedules increased to more appropriate levels, participation increased substantially. It seems that private psychiatrists are not prejudiced against the poor, but, rather, are resentful of an unfair, unwieldy system.

continued from page 139

—Examining the $1 billion renal dialysis program to determine if services could be provided at less cost.

—Expanding home health benefits with an aim to reducing Medicare-Medicaid payments for hospital and nursing home care.

—Decentralizing health planning.

The thrust of the report toward easing federal regulation and encouraging a greater role for the private sector was mirrored in a report on health policies issued by the Heritage Foundation, a Washington, D.C., study group.

The Heritage Foundation, a conservative think tank with strong ties to the Reagan administration, has come up with a blueprint for future government that includes some sweeping changes in health.

The Foundation calls for examination of methods of "phasing out Medicaid and Medicare in their present form, pursuant to the development of systems relying on 'vouchers' and a more competitive private market."

Foundation President Edwin Feulner, said the Foundation's "Mandate for Leadership" study, a year in the making, is a basic set of conservative policy recommendations "which I hope the Reagan administration will give its careful and serious consideration." He said the study represents the collected opinions of more than 250 experts from government, universities, think tanks, and the business and legal professions.

The author of the report on the HHS Department was David Winston, an aide to Senator Richard Schweiker (R., Pa.).

The HHS section proposed a freeze on all HHS consulting contracts pending a full review of their usefulness, noting that the department "is very heavily dependent on such outside consultants."

It called for concentration on the role of HHS as a " 'last resort,' while deregulating and enhancing the private sector's innovative capabilities."

Turning to the HCFA (Health Care Financing Administration), which runs Medicare and Medicaid, the report said HCFA has considerable difficulties managing fiscal intermediaries (for example, insurance carriers) through which Medicare and Medicaid programs are administered. Furthermore, it finds it difficult to restrict health cost increases because of the retrospective, cost-based reimbursement system for these programs.

Immediate examination of means to improve the administration of Medicaid and Medicare was urged. Containment policy should be turned away from a controls and guidelines approach to a process of reimbursement reform, deregulation, and improved competition, according to the study.

A significant recommendation was that "attention should be given, however, to the reduction or elimination of the PSRO (Professional Standards Review) program."

The Foundation study also noted that the NIH (National Institutes of Health) have been criticized for duplicating work in the private sector. "Private organizations should be encouraged to carry out more development work, reserving NIH for areas with little commercial promise. Methods could be examined of altering the tax treatment of private research to encourage private involvement in more risky, innovative fields."

The report added that "bureaucratic problems of NIH

continued on page 142

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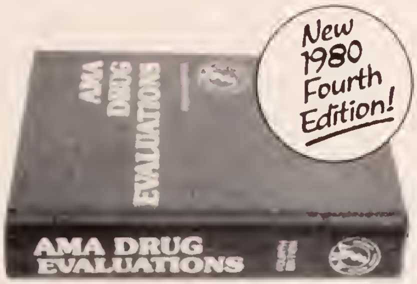

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continued from page 141

might be reduced by strengthening the Director's authority to improve budgeting and planning, and by analyzing the cost structure with a view of reducing indirect costs." Another significant proposal was for a thorough review of federal involvement with HMOs (Health Maintenance Organizations) with a possible six-month moratorium on all new program awards and extensions.

* * *

House-Senate conferees have deleted from the Medicare-Medicaid amendments package a majority of the provisions that had been disputed by the medical profession.

The victory for the health providers was highlighted by elimination of the controversial Senate provision that would have restricted Medicaid beneficiaries' freedom of choice of institution by allowing states to specify which hospitals beneficiaries could attend.

Advocates of the provision had claimed that states could save money by channeling Medicaid patients to lower-cost facilities, but opponents, including the AMA, warned that such restrictions raised the spectre of a two-tier system of care.

The amendments constituted the health section of the budget "reconciliation" bill Congress has been working on in an attempt to bring federal spending in line with Congress' own, self-imposed budget limitations.

The conference committee's agreement on the total budget "reconciliation" was expected to clear the way for final Congressional approval. There had been a question whether Congress would be able to work out a compromise between House and Senate versions of the bill during the "lame duck" session, but the lawmakers were anxious to resolve their differences in order to avoid what would have been a shattering blow to the Congressional budget process through failure to act.

One of the major provisions removed from the Medicare-Medicaid list was the proposal for sweeping changes in the way Medicare reimburses hospitals. This was the heart of the long-standing plan by Senator Herman Talmadge (D., Ga.) to pay hospitals by groups, size, and class on a prospective basis.

Another Talmadge provision dropped would have changed the criteria for determining reasonable charges for physicians' services and looked toward statewide uniformity in fee allowances. This provision also would have restructured the payment basis for hospital-associated physicians.

A controversial, administration-supported provision to boost Medicare payments for HMOs (Health Maintenance Organizations) to 95 percent of the prevailing level was stripped from the measure.

Hospitals won their fight against a cost-cutting amendment that would have eliminated the current Medicare 8.5 percent differential payment for nursing costs.

The conferees also abandoned a proposal for liberalized conditions for reimbursement for chiropractic services, and voted down a provision for expanded payment for community mental health centers.

* * *

The AMA has taken strong exception to two draft documents on health planning and has asked Health and Human Services Secretary Patricia Harris to recall them immediately.

The documents outline standards and measurements to be used in evaluating Health Systems Agencies, State Health Planning and Development Agencies, and the Health Planning Program as a whole. While recognizing the need for federal monitoring of the program, the AMA said the two drafts "represent an unduly extensive imposition of federal standards on the health planning process."

The AMA pointed out that the proposed standards are derived from the 1978 National Health Planning Guidelines and the draft National Health Goals, neither of which yet has legal standing. "The wholesale incorporation of these guidelines and goals into a review system to establish norms, the deviation from which will subject an agency to sanctions, transforms the guidelines and goals into federally-mandated requirements."

The Association stressed that planning authority and direction should be focused at the local level and suggested that any future proposals be drafted to provide greater flexibility for state and local agencies in establishing indicators to measure their progress.

* * *

Contending there is a "totally inadequate" national awareness of prescription drug abuse, the Director of the NIDA (National Institute of Drug Abuse) warned the problem could reach the magnitude of alcohol and tobacco as health hazards.

Federal officials estimated 7 million Americans use legal drugs for nonmedical purposes. William Pollin, M.D., NIDA Director, said misuse of prescription drugs is insidious and shows no signs of decreasing.

Dr. Pollin spoke at a Washington, D.C., conference sponsored by the federal drug agencies in conjunction with the American Medical Association, the Pharmaceutical Manufacturers Association, and the National Association of State Alcohol and Drug Abuse Directors.

Peter Bensinger, Administrator of the Drug Enforcement Administration, said 250 million to 300 million dosage units are diverted each year. "A few physicians and pharmacists interested in illicit gain have caused a major national problem," he said. Federal investigators found one physician making $200,000 a month from dealing in prescription drugs illegally, he said. One physician's desk drawer contained more than $1 million in cash.

The government officials conceded they could not accurately estimate how much of the problem stems from crooked physicians and pharmacists and how much from theft, from "professional patients," or other means.

Joseph Skom, M.D., Chairman of the AMA Committee on Dangerous Drugs, said the most important task is continuing medical education of physicians on proper prescribing. The overwhelming majority of the problem is caused by a "small minority" of physicians, Dr. Skom told the conference.

The AMA has drafted model state legislation to crack down on physician misconduct, he noted, with one half of the state to date providing all or part of the recommended code. Dr. Skom pointed to a six-fold increase in disciplinary actions against physicians since 1971, suggesting that this has helped in the fight against prescribing abuse. The AMA believes in "firm prosecution" of guilty physicians, he said.

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ONDOMINIUM CONVERSION. YOUR PROFIT potential in converting your Medical/Professional Building into a commercial condominium is excellent. Learn more about this exciting concept. Contact; Paul Gellert, Gelco Realty Corp., 595 Fifth Avenue, New York, NY 10017 (212) 223-1130.

PACE FOR RENT: HUNTINGTON (110 PLAZA). 1,800 sq. ft. Brand new medical office space, never used. Prime location on Rt 110 in modern attractive bldg. Midst of Walt Whitman shopping center. (516) 423-3841 or 423-3824.

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PAUL MILLER
26 COURT ST., BKLYN, N.Y. 11201
212 339-0447 YEAR ROUND SERVICES

REAL ESTATE FOR SALE OR RENT—CONT'D

BROOKLYN AT KINGS PLAZA (between Avenue T and Avenue U). Prestigiou new luxury Professional building, immediate occupancy, concessions, elevato service, direct exposure to Macy's and Alexanders Shopping Mall, Borough-wid transportation at front door, excellent terms, Flatbush Ave. North exit on Bel Parkway. Call owner (212) 287-5013 or (212) 338-0400.

OFFICE SPACE FOR RENT—HEWLETT. New Building 2,000 sq. ft. Wi divide. (516) 599-7945.

HOLLIS GARDENS, QUEENS COUNTY, N.Y.; Professional office and hom for sale; 10 rooms, center hall, colonial, custom built, 3 baths, finished basement central air, alarm systems, garage, attached 4 room doctor's office, fully equippe for general practice, 100 × 100 plot, main street. details call Broker (212) 347 1530.

AVAILABLE IMMEDIATELY modern, fully equipped office for Radiologist o Gastro-enterologist, with or without private practice. Excellent East Side lo cation. Call (212) 988-1521 or leave message at (212) 988-7000, extension 17

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AMERICAN MEDICAL WRITERS ASSOCIATION

SCHEDULE OF SCIENTIFIC MEETINGS

1981 ANNUAL CME ASSEMBLY

Medical Society of the State of New York
Niagara Falls Convention Center

FRIDAY, JUNE 26

Morning: Cardiovascular Diseases
Obstetrics & Gynecology
Gastroenterology, Colon & Rectal Surgery
Cancer Update 1981—General Session
Chest Diseases

Afternoon: Occupational Medicine, and Medical Legal & Workers' Compensation matters
Obstetrics & Gynecology
Gastroenterology, Colon & Rectal Surgery
Alcohol & the Unborn—General Session
Preventive Medicine
Otolaryngology & Maxillofacial Surgery
Dermatology & Syphilology

SATURDAY, JUNE 27

Morning: Ophthalmology
Internal Medicine
Surgery, Urology & Anesthesiology
Pathology, Radiology & Orthopedic Surgery
Neurosurgery

Afternoon: Ophthalmology
Internal Medicine
Medical Liability
Computer Application to Office & Hospital Practice General Session

SUNDAY, JUNE 28

Morning: Allergy & Immunology
School Health & Pediatrics
Psychiatry & Family and General Practice
Plastic, Reconstructive & Maxillofacial Surgery
Physical Medicine & Rehabilitation, and Orthopedics
Neurology

CME CREDITS: Each program will be eligible for CME Category I Credits on an hour-for-hour basis.

SCIENTIFIC & TECHNICAL EXHIBITS

what goes on
IN
CONTINUING MEDICAL EDUCATION

NEW YORK STATE **FEBRUARY 1981**

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Please send information to the Editor, WHAT GOES ON,
420 Lakeville Road, Lake Success, New York 11042
Telephone 516-488-6100.

Compiled by the Division of Scientific Activities
George J. Lawrence, Jr., M.D., Director
Mrs. Elizabeth H. Daepp, Editor
Philip Keating, Business Manager

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NEW YORK CITY

The Page and William Black Postgraduate School of Medicine of the Mount Sinai School of Medicine (CUNY)

* Beth Israel Medical Center
10 Nathan Perlman Place, N.Y.
February 1981
CARDIAC REHABILITATION: A PRACTICAL APPROACH
Emanuel Goldberg, M.D., Marius Focseneanu, M.D.
Marvin Berger, M.D., Peter Gallerstein, M.D., Will Grossman, M.D.
FEE: TO BE DETERMINED CREDIT: AMA Cat. 1
* The Mount Sinai Medical Center
One Gustave L. Levy Place
February 16–20, 8:00 a.m.–5:00 p.m., Monday–Friday
HEAD AND NECK SURGERY
Hugh Biller, M.D.
FEE: $1200. CREDIT: AMA Cat. 1 (37.5 hrs.)
February 23–25, 9:00 a.m.–5:00 p.m., Monday–Wednesday
AMERICAN COLLEGE OF PHYSICIANS COURSE IN CARDIOVASCULAR THERAPEUTICS
Joel Kupersmith, M.D.
FEE: TO BE ANNOUNCED CREDIT: AMA Cat. 1 (19.5 hrs.)
February 28, 9:00 a.m.–5:00 p.m., Saturday
THE FIRST ABRAM BLAU MEMORIAL SYMPOSIUM: INFANT ABUSE
Mortimer J. Blumenthal, M.D., Eleanor Galenson, M.D.
FEE: $75. including lunch CREDIT: AMA Cat. 1 (5½ hrs.)
$35. NON M.D.'s including lunch
For further information contact The Mount Sinai Medical Center, One Gustave L. Levy Place, New York 10029. Tel: 212/650-7467.

State University of New York Downstate Medical Center

450 Clarkson Avenue
Brooklyn
February 2, 4:00–5:00 p.m.
VISITING PROFESSOR PROGRAM
INTRAVENOUS ANESTHESIA
Richard B. Knapp, M.D.
February 3, 5:00–6:00 p.m.
RISK OF SURGERY IN PATIENTS WITH HEART DISEASE
Richard B. Knapp, M.D.
* Alumni Memorial Hall, 2nd Floor
Tuesdays, 5:00–6:00 p.m., (*when Visiting Professor is not scheduled*)
ANESTHESIA GRAND ROUNDS
* Lecture Hall #6—6th Floor
February 23, 4:00–5:00 p.m., Monday
ION TRANSPORT
Robert S. Bourke, M.D.
For further information contact Abraham I. Raskob, M.D., Clinical Associate Professor, Program Coordinator, Department of Anesthesiology, State University of New York Downstate Medical Center, 450 Clarkson Avenue, Brooklyn 11203. Tel: 212/735-3344.

State University of New York Downstate Medical Center in conjunction with District I of the New York State Society of Anesthesiologists, Inc.

February 28, Saturday
March 1, Sunday
ACT II (ANESTHESIA CARE TEAM) SEMINAR
For further information contact Abraham I. Raskob, M.D., Clinical Associate Professor, Program Coordinator, Department of Anesthesiology, State University of New York, Downstate Medical Center, 450 Clarkson Avenue, Brooklyn 11203. Tel: 212/270-1000.

Jewish Hospital and Medical Center of Brooklyn in association with the American Cancer Society, New York Division, Brooklyn Unit, Office of CME, (SUNY) Downstate Medical Center

555 Prospect Place
Brooklyn
* B-51 Conference Room, Basement, Leviton Bldg.
3:30–4:30 p.m.
February 4
NEW ANTIBIOTICS FOR IMMUNOSUPPRESSED HOSTS
Charles Cherubin, M.D.
February 11
THE CYTOGENETICS OF CHRONIC MYELOGENOUS LEUKEMIA
Harvey Dosik, M.D.
February 18
ADVANCES IN CANCER OF THE VULVA AND VAGINA
Robert Wallach, M.D.
February 25
CURRENT CONCEPTS IN THE CLASSIFICATION OF LYMPHOMAS
Harry L. Ioachin, M.D.
NO FEE CREDIT: AMA Cat. 1
For further information contact Jewish Hospital & Medical Center of Brooklyn, 555 Prospect Place, Brooklyn 11238. Tel: 212/240-1211/1212, Div. of Hematology.

Doctors Hospital

170 East End Avenue at 87th Street
February 5, 4:15 p.m., Thursday
DISORDERS OF TESTICULAR FUNCTION
Mortimer B. Lipsett, M.D.
NO FEE CREDIT: AMA Cat. 1
For further information contact Clifford L. Spingarn, M.D., Chairman, Committee on Continuing Medical Education, Doctors Hospital, 170 East End Avenue, New York 10028.

Albert Einstein College of Medicine of Yeshiva University cosponsored by the National Cancer Institute (NSABP Cancer Control Network) and The American Cancer Society

1300 Morris Park Avenue
Bronx
* Van Etten Hospital, Room 523
4:00–5:30 p.m.
February 6
ONCOLOGY FOR THE FAMILY PRACTITIONER
RECONSTRUCTION AFTER MASTECTOMY
S. Herman, M.D.
February 20
C.A.T. SCAN IN DIAGNOSIS OF ABDOMINAL MALIGNANCIES
H. T. Morehouse, M.D.
CREDIT: AMA & AAFP Cat. 1
For further information contact Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx 10461. Tel: 212/430-2000.

New York Academy of Medicine

2 East 103 Street
February 13, 7:30 p.m., Friday
SEMMELWEIS SCIENTIFIC SOCIETY
GUSTAVE AUFRICHT MEMORIAL LECTURE
THE TREATMENT OF FACIAL PARALYSIS
Leonard Rupert Rubin, M.D.

For further information please write or phone Otto C. Kestler, M.D., 515 Madison Avenue, New York 10022 or Richard G. Merkler, M.D. Tel: 212/758-2590.

New York University Post-Graduate Medical School

550 First Avenue
* Schwartz Lecture Hall, Classroom F
401 East 30th Street

February 14, 9:00 a.m.–1:15 p.m., Saturday
THE USE OF PSYCHOTROPIC DRUGS IN OFFICE PRACTICE
Paul P. Casadonte, M.D.
FEE: $35. CREDIT: AMA Cat. 1 (4 hrs.)
For further information contact New York University Post-Graduate Medical School, 550 First Avenue, New York 10018. Tel: 212/679-8745.

Saint Mary's Hospital of Brooklyn

170 Buffalo Avenue
Brooklyn

February 11, 8:00–9:00 a.m.
THE CURRENT DILEMMA IN THE USE OF ESTROGENS IN THE MENOPAUSAL PERIOD, GUIDELINES FOR PRACTICE—PRO AND CON
Bernard Sicuranza, M.D.
NO FEE CREDIT: AMA Cat. 1

February 26, 12 noon–1:00 p.m., Thursday
SJORGEN'S SYNDROME—A COMMONLY OCCURRING, OFTENLY MISUNDERSTOOD CLINICAL ENTITY
William D'Angelo, M.D.
NO FEE CREDIT: AMA Cat. 1
For further information, contact Saint Mary's Hospital Division of the Catholic Medical Center, Department of Medicine, 170 Buffalo Avenue, Brooklyn 11213. Tel: 212/774-3600.

QUEENS

The Jamaica Hospital Medical Center

89th Avenue & Van Wyck Expressway
Jamaica
* Community Room
8:30 a.m.–9:30 a.m., Mondays

CARDIOLOGY

February 2
EXPANDING SPECTRUM OF ISCHEMIC HEART DISEASE
Paul Kligfield, M.D.

February 23
RENIN, ANGIOTENSIN & THE TREATMENT OF ESSENTIAL HYPERTENSION
David Case, M.D.

CARDIOLOGY ROUNDS are conducted on alternate Mondays, 8:30–9:30 a.m., in the Community Room, Clement Weinstein, M.D. and Staff

ECG & CLINICAL CARDIOLOGY CONFERENCES are held on alternate Thursdays, from Noon to 1:00 p.m.
Francis E. Raia, M.D.

DERMATOLOGY

* Community Room
11:45 a.m.–12:45 p.m.

February 9
SKIN ALLERGY
David L. Cohen, M.D.

OTOLARYNGOLOGY

February 2
PEDIATRIC OTOLARYNGOLOGY PROBLEMS
Allen L. Abramson, M.D.

UROLOGY

February 23
PATHOPHYSIOLOGY OF URINARY CALCULI-TREATMENT
Syrus Tirgary, M.D.

ENDOCRINOLOGY & METABOLISM

* Community Room
10:45–11:45 a.m., Tuesday

February 24
ADRENAL PHYSIOLOGY & TESTS OF ADRENAL FUNCTION
Edward Condon, M.D.

ENDOCRINOLOGY ROUNDS are conducted monthly, from Noon to 1:00 p.m., in the Community Room, on Tuesdays, Howard D. Kolodny, M.D. and Staff

HEMATOLOGY

* Community Room
10:45–11:45 a.m., Tuesday

February 17
IMMUNE DEFICIENCY STATES
Stephen Litwin, M.D.

HEMATOLOGY GRAND ROUNDS are conducted weekly, on Fridays, from 1:00 to 2:30 p.m., in the First Floor Conference Room

HEMATOLOGY CONFERENCES are conducted monthly, from noon to 1:00 p.m., in the Community Room, on Tuesdays, Malcolm E. Levine, M.D. and Staff

NEPHROLOGY

* Community Room
10:45–11:45 a.m., Tuesday

February 10
HYPONATREMIA
Richard M. Stein, M.D.

NEPHROLOGY ROUNDS are conducted monthly, from noon to 1:00 p.m., in the Community Room, on Tuesdays. Amarjit Singh, M.D. & Emmanuel B. Masih, M.D. and Staff

NEUROLOGY

* Community Room
10:45–11:45 a.m., Tuesday

February 3
SLOW VIRAL DISEASES OF THE NERVOUS SYSTEM
Roger Traub, M.D.

NEUROLOGY ROUNDS are conducted monthly, from noon to 1:00 p.m. in the Community Room on Tuesdays, Alfred C. Bannerman, M.D.

TUESDAYS, the second Tuesday of the month, *INFECTIOUS DISEASES ROUNDS* are conducted from 3:30–4:30 p.m., in the Community Room, Robert H. Lapin, M.D.

MEDICAL GRAND ROUNDS AND PROGRESS IN MEDICINE

* Trump Pavilion
9:00–10:30 a.m., Wednesdays

February 4
UPDATE ON PSYCHOTROPIC AGENTS
Jack Schnee, M.D.

February 11
NON-ALCOHOLIC CHRONIC LIVER DISEASE
Fenton Schaffner, M.D.

February 18
ASBESTOSIS, MESOTHELIOMA & RELATED NEOPLASMS
Irving Selikoff, M.D.

February 25
UPDATE ON BRONCHIAL ASTHMA
John A. Crocco, M.D.

WEDNESDAYS, 1:00–2:00 p.m., TUMOR BOARD—Fourth Wednesday
CLINICAL PATHOLOGY CONFERENCE, Assembly Room

INFECTIOUS DISEASES

* Community Room
10:45–11:45 a.m., Thursdays

February 19
G.U. INFECTIONS: UPPER & LOWER: GYN INFECTIONS
Robert H. Lapin, M.D.

INFECTIOUS DISEASES ROUNDS are conducted on the Second

Tuesday, from 3:30–4:30 p.m. in the Community Room—
Robert H. Lapin, M.D.

ONCOLOGY

* Community Room
10:45–11:45 a.m.
February 5
CHEMOTHERAPY OF G.I. CANCER
Vincent Vinciguerra, M.D.
ONCOLOGY LECTURES are held on Wednesdays, from 9:00–10:30 a.m. in the Trump Pavilion: *MEDICAL GRAND ROUNDS—PROGRESS IN MEDICINE*
February 18
ASBESTOSIS, MESOTHELIOMA & RELATED NEOPLASMS
Irving Selikoff, M.D.

PULMONARY DISEASES

* Community Room
10:45–11:45 a.m., Thursdays
February 12
THE VALUE OF PULMONARY FUNCTION TESTS IN THE DIAGNOSIS OF PULMONARY DISEASES
Joseph H. Dwek, M.D.
PULMONARY DISEASES LECTURES are held on Wednesdays, from 9:00–10:30 a.m., in the Trump Pavilion: *MEDICAL GRAND ROUNDS—PROGRESS IN MEDICINE*
February 25
UPDATE ON BRONCHIAL ASTHMA
John A. Crocco, M.D.
PULMONARY DISEASES ROUNDS are conducted monthly, from Noon to 1:00 p.m., in the Community Room, on Thursdays, Gerald M. Greenberg, M.D. and Staff

RHEUMATOLOGY

* Community Room
10:45–11:45 a.m., Thursdays
February 26
MYOSITIS SYNDROMES
Steven Magid, M.D.
RHEUMATOLOGY ROUNDS are conducted monthly from Noon to 1:00 p.m., in the Community Room, on Thursdays, William A. O'Connell, M.D. and Staff
ALTERNATE THURSDAYS, Noon–1:00 p.m., ECG & CLINICAL CARDIOLOGY CONFERENCES, Francis E. Raia, M.D.

MEDICAL GASTROENTEROLOGY

* Community Room
10:45–11:45 a.m., Fridays
February 6
FOOD ALLERGIES AND RELATED ALLERGIC GI DISORDERS
Murray Davidson, M.D.
February 20
ULTRASONIC SCALPEL IN LIVER TUMORS AND OTHER ENTITIES
W. John B. Hodgson, M.D.
The following *GASTROENTEROLOGY LECTURES* are held on Wednesdays, from 9:00–10:30 a.m., in the Trump Pavilion: *MEDICAL GRAND ROUNDS—PROGRESS IN MEDICINE*
February 11
NON-ALCOHOLIC CHRONIC LIVER DISEASE
Fenton Schaffner, M.D.
MEDICAL GASTROENTEROLOGY ROUNDS are conducted on alternate Fridays, in the Community Room, 10:45–11:45 a.m., Robert T. Todaro, M.D. and Staff
FRIDAYS, Noon to 1:00 p.m., Assembly Room *RADIOLOGY CONFERENCES*, Emerick Demeter, M.D. and Staff, alternating with *MEDICAL-PATHOLOGY-MORTALITY CONFERENCE*, Elizabeth Khayat, M.D. and Staff.
FRIDAYS, 1:00–2:30 p.m., First Floor Conference Room *HEMATOLOGY GRAND ROUNDS*
For further information contact The Jamaica Hospital, 89th Avenue & Van Wyck Expressway. Jamaica 11418. Tel: 212/657-1800.

Flushing Hospital and Medical Center co-sponsored with Memorial Sloan Kettering Center

Parsons Boulevard and 45th Avenue
Flushing
February 5
BLADDER AND/OR PROSTATE CANCER
Harry Herr, M.D.
For further information contact Flushing Hospital and Medical Center, Parsons Boulevard and 45th Avenue, Flushing 11355. Tel: 212/670-5000.

Flushing Hospital and Medical Center

Parsons Boulevard and 45th Avenue
Flushing
February 1, 9:00 a.m.–12 Noon, Sunday
DISTURBANCES IN ACID BASE BALANCE (PART I)
CREDIT: AMA Cat. 1 & AAFP
* 2 East Conference Room
8:15 a.m.–9:45 a.m.
February 6
DYSMENORRHEA
February 20
DIAGNOSIS AND THERAPY OF HYPERPROLACTINEMIA
CREDIT: AMA Cat. 1 & AAFP
* 4-C Conference Room
February 3
THE SCOPE OF KIDNEY RADIOLOGY
Joshua Becker, M.D.
CREDIT: AMA Cat. 1 (1½ hrs.) & AAFP
February 10
PRINCIPLES OF FLUID & ELECTROLYTE THERAPY
Sherman Levine, M.D.
CREDIT: AMA Cat. 1 (1½ hrs.) & AAFP
February 17
CLINICAL LABORATORY TESTING: STATE OF THE ART
Arthur Simmons, Ph.D.
CREDIT: AMA Cat. 1 (1½ hrs.) & AAFP
February 24
DETERMINATES & ASSESSMENT OF CARDIAC FUNCTION
Edmund Sonnenblick, M.D.
CREDIT: AMA Cat. 1 (1½ hrs.) & AAFP
For further information contact Flushing Hospital and Medical Center, Parsons Boulevard and 45th Avenue, Flushing 11355. Tel: 212/670-5741.

Peninsula Hospital Center Under the Auspices of Downstate Medical Center Co-Sponsored by the Academy of Medicine County of Queens

51-15 Beach Channel Drive
Far Rockaway
* Perlberg Auditorium
9:00 a.m.–12:00 Noon
February 2
RA AND RA VARIANTS
February 8
RA AND RA VARIANTS
February 15
CLINICAL GENETICS
February 22
HYPERTENSION/ACID BASE BALANCE
CREDIT: AMA Cat. 1 & AAFP
For further information contact Peninsula Hospital Center, 51-15 Beach Channel Drive, Far Rockaway 11691. Tel: 212/945-7100, ext. 275.

NASSAU

Long Beach Memorial Hospital cosponsored by The Page and William Black Post-Graduate School of Medicine of the Mount Sinai School of Medicine (CUNY)

455 E. Bay Drive
Long Beach
February 3, 4:00–6:00 p.m.
RENAL INSUFFICIENCY:
Sheldon Glabman, M.D.
NO FEE CREDIT: AMA Cat. 1
For further information contact Community Relations Department, Long Beach Memorial Hospital, 445 E. Bay Drive, Long Beach 11561. Tel: 516/432-8000, ext. 362 or 363.

Nassau County Medical Center

2201 Hempstead Turnpike
East Meadow
* Amphitheater Dynamic Care Building
10:00 a.m., Thursdays
February 5
PORPHYRIA
Barry Kaplan, M.D.
February 19
TRANSLUMINAL CORONARY ANGIO-PLASTY
Simon H. Stertzer, M.D.
February 26
INFECTIONS IN THE COMPROMISED HOST
Donald Louria, M.D.
CREDIT: AMA Cat. 1
For further information contact Ethel Ford, CME Coordinator, Department of Medicine, Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow 11554. Tel: 516/542-3713.

Nassau County Medical Center

2201 Hempstead Turnpike
East Meadow
February 27
ELECTROPHYSIOLOGY OF THE EYE
James Collins, M.D.
CREDIT: AMA Cat. 1
For further information contact Elsa K. Rahn, M.D., Director, Division of Ophthalmology, Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow 11554. Tel.: 516/542-0123.

Nassau Hospital

259 First Street
Mineola
February 24

FAMILY PRACTICE

HEADACHES
Sydney Louis, M.D.

INTERNAL MEDICINE

* Breed Conference Room
11:00 a.m., Mondays
February 2
INFLAMMATORY DISEASE OF G.I. TRACT
David Faegenburg, M.D.
February 9
CURRENT TRENDS IN ECT
Henry P. Pechstein, M.D.
February 16
NUTRITION AND AGING
Ashok N. Vaswani, M.D.
February 23
ENT MEDICINE OVERLAP
Anthony Durante, M.D.

CRITICAL CARE CONFERENCES

* Breed Conference Room
11:00 a.m., Tuesdays
February 3
BLEEDING IN CANCER PATIENTS
Djin Yong Tjioe, M.D.
February 10
INTERSTITIAL NEPHRITIS
Louis Imbriano, M.D.
February 17
DIAGNOSIS AND TREATMENT OF TRANSFUSION REACTIONS
Joseph Fink, M.D.
February 24
USE OF PACEMAKER IN THE PATIENT WITH ACUTE MYOCARDIAL INFARCTION
Fattah Shahidi, M.D.

ADVANCES IN MEDICINE

February 4
DIAGNOSIS AND MANAGEMENT OF MYELOPROLIFERATIVE DISORDERS
John Laszlo, M.D.
February 11
CURRENT STATUS OF RENAL TRANSPLANTATION
Felix Rapaport, M.D.
February 25
NEW ADVANCES IN BETA-BLOCKER THERAPY
William Frishman, M.D.

PROBLEM SOLVING CONFERENCES

* Breed Conference Room
11:00 a.m., Fridays
February 6
SELECTING PATIENTS TO TREAT WITH CHEMOTHERAPY
James Kwee, M.D.
February 13
MEMBRANOUS NEPHROPATHY
Vincent Alaimo, M.D.
February 20
MONOCLONAL GAMMOPATHY
Barry Gimbel, M.D.
February 27
WHAT IS THE ROLE OF CORONARY ARTERY SPASM IN THE SPECTRUM OF ISCHEMIC HEART DISEASE
Jack Budow, M.D.

OBSTETRICS-GYNECOLOGY

* Breed Conference Room
9:00 a.m., Friday
February 27
BASIS OF CHEMOTHERAPY

UPDATE IN GYN AND OBSTETRICAL PATHOLOGY

* Breed Conference Room
8:00 a.m., Friday
February 6
BASIC IMMUNOLOGIC PRINCIPALS
February 20
SEROLOGY OF INFECTIOUS DISEASE

UPDATE IN GYNECOLOGIC ENDOCRINOLOGY

* Breed Conference Room
9:00 a.m.
February 6
SECONDARY AMENORRHEA I
Raymond L. Vande Wiele, M.D.

UPDATE IN PERINATOLOGY

* Breed Conference Room
9:00 a.m.
February 20
TRENDS IN MATERNAL AND PERINATAL MORTALITY

OPHTHALMALOGY

* Board Room
5:00 p.m., Tuesdays
February 3
GRANULOMATOUS INFECTIONS
Edward Seretan, M.D.

PEDIATRICS

* 6 New Conference Room
1:00 p.m., Thursdays
Paul F. Twist, D.O.
February 5
IMPERFORATE ANUS IN NEWBORN
February 12
INTRAUTERINE GROWTH RETARDATION
February 19
FORMULA FEEDING IN THE NEWBORN
February 26
ACID BASE BALANCE

PERINATAL/NEONATAL CONFERENCE

* Breed Conference Room
12:00 Noon, Fridays
Steven A. Klein, M.D., Paul F. Twist, D.O.
February 6
MORBIDITY & MORTALITY CONFERENCE
February 13
PERINATAL NUTRITION
February 20
PERINATAL CASE STUDIES
February 27
TRENDS IN BREAST AND FORMULA FEEDING

RADIOLOGY GUEST LECTURE SERIES

* Breed Conference Room
3:00 p.m., Thursdays
February 5
TRANSLUMINAL ANGIOPLASTY: TECHNIQUE, COMPLICATIONS AND RESULTS

THORACIC AND CARDIOVASCULAR SURGERY

* Breed Conference Room
8:00 a.m., Monday
MANAGEMENT OF VASCULAR TRAUMA
Malcolm Perry, M.D.

UROLOGY

* Breed Conference Room
7:45 a.m., Tuesday
PROPHYLACTIC ANTIMICROBIAL THERAPY
Burke A. Cunha, M.D.
For further information contact G. E. Lessard, Ph.D., Nassau Hospital, 259 First Street, Mineola 11501. Tel: 516/663-2521.

Long Island Jewish-Hillside Medical Center & Health Sciences Center (SUNY)

* Sloman Lowenstein Auditorium, Hillside Division
Long Island Jewish-Hillside Medical Center
Department of Psychiatry
February 6, 8:30 a.m.–4:30 p.m.
THE MOVEMENT DISORDERS—UPDATE 1981
CREDIT: AMA Cat. 1 & LCCME (6 hrs.)

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* Long Island Jewish Hillside Medical Center

Department of Ophthalmology
8:00–9:30 p.m.
February 9
OPHTHALMOLOGY SEMINAR PROGRAM 1980–1981
TOPICS IN GLAUCOMA—LASER IRIDECTOMY
Steven Podos, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)
For further Information contact Continuing Education Coordinator, Long Island Jewish-Hillside Medical Center, New Hyde Park 11042. Tel: 212/470-2114.

SUFFOLK COUNTY

St. Charles Hospital cosponsored by St. Francis Hospital

200 Belle Terre Road
Port Jefferson
* St. Charles Lecture Room
February 2, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
February 3, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
RENAL PHYSIOLOGY
George Kaloyanides, M.D.
* St. Charles Classroom "A"
February 6, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
* St. Charles Lecture Room
February 9, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
* St. Charles Classroom "A"
February 10, 11:00 a.m., Tuesday
OB/GYN CONFERENCE
HIRSUTISM
Judith Chown, M.D.
* St. Charles Lecture Room
February 10, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
PULMONARY PHYSIOLOGY
Robert Reza, M.D.
* St. Charles Classroom "A"
February 13, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
February 16, 7:30 a.m., Monday
OPHTHALMOLOGY CONFERENCE
* St. Charles Lecture Room
February 16, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
February 17, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
GASTRIC PHYSIOLOGY
Douglas Brand, M.D.
* St. Charles Classroom "A"
February 20, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
* St. Charles Lecture Room
February 20, 8:00 a.m., Friday
FAMILY PRACTICE PROGRAM
PRACTICAL USES OF RESPIRATORY SUPPORTS
Philip J. Riggio, M.D.
February 23, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
CURRENT MANAGEMENT OF CARCINOMA OF THE OVARY
William Mann, M.D.
February 24, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
CARDIOVASCULAR PHYSIOLOGY
George Mallis, M.D.
February 27, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND

JEWISH-HILLSIDE MEDICAL CENTER
CREDIT: AMA Cat. 1
For further information contact Mary Rotolo, Department of Medical Education, St. Charles Hospital, 200 Belle Terre Road, Port Jefferson 11777. Tel: 516/473-2800.

Mather Memorial Hospital

North Country Road
Port Jefferson
* Mather Conference Room

February 2, 8:00 p.m., Monday
POST GRADUATE DENTAL PROGRAM
DRUG INTERACTIONS AND ANESTHETICS
Edward A. Norris, M.D.

February 16, 7:00 a.m., Monday
ANESTHESIOLOGY CONFERENCE
SODIUM NITROPRUSSIDE THERAPY
Edward A. Norris, M.D.
CREDIT: AMA Cat. 1
For further information contact Mary Rotolo, Department of Medical Education, Mather Memoiral Hospital, North Country Road, Port Jefferson 11777. Tel: 516/473-1320.

SUNY at Stony Brook

Stony Brook
* Health Sciences Center

March 16–20
SEVENTH ANNUAL FAMILY MEDICINE REVIEW COURSE
FEE: $300. CREDIT: AMA CAT. 1 & AAFP Prescribed 40 hrs.
For further information contact Office of Continuing Medical Education, SUNY at Stony Brook, 11794. Tel: 516/246-2094.

Brookhaven Memorial Hospital Medical Center

101 Hospital Road
Patchogue
* 1st Floor Conference Room

February 3, 8:00–9:00 a.m.
INGESTIONS
Arnold Scherz, M.D.
CREDIT: AMA Cat. 1 & AAFP

* 1st Floor Conference Room

February 6, 8:00–9:00 a.m.
CLINICAL PROBLEMS IN FAMILY MEDICINE
APHASIA, AGNOSIA, APRAXIA
Robert Moore, M.D.

February 13
THE HEART & LUNGS & OBESITY
Harry Fritts, M.D.

February 20
UPDATE ON SARCOIDOSIS
Adam Hurewitz, M.D.

February 27
ROLE OF PULMONARY FUNCTION TESTING
Gerald Smaldone, M.D.
CREDIT: AMA Cat. 1 & AAFP

* 1st Floor Conference Room

February 7, 8:30 a.m.
MEDICAL GRAND ROUNDS
Arthur Sawitsky, M.D.
CREDIT: AMA Cat. 1 & AAFP
For further information contact Dorothy S. Lane, M.D., Director of Medical Education, Brookhaven Memorial Hospital Medical Center, 101 Hospital Road, Patchogue 11772. Tel: 516/654-7000.

WESTCHESTER COUNTY

New York Medical College

Valhalla
* INSTRUCTIONAL TELEVISION PRESENTATION

February 5
SEMINAR IN PEDIATRIC SURGERY (LIVE)
SURGICAL EMERGENCIES OF THE NEWBORN

February 19
SEMINAR IN CANCER EDUCATION (LIVE)
CANCER OF THE OVARY

February 26
BASIC SCIENCE DIALOG (PRETAPED)
FUNDAMENTALS OF STRESS ULCERATION AND UPPER GI BLEEDING
CREDIT: AMA Cat. 1 (1 hr. per program).
For further information contact Saverio S. Bentivegna, M.D., Associate Dean Director, Continuing Medical Education, New York Medical College, Valhalla 10595. Tel: 914/347-5147.

BUFFALO

Roswell Park Memorial Institute and the American Cancer Society, New York State Division and Erie County Unit

666 Elm Street
Buffalo
* Hilleboe Auditorium

February 5
ADVANCES IN GYNECOLOGIC ONCOLOGY
Joseph Barlow, M.D.
FEE: $25. CREDIT: AMA Cat. 1 & AAFP & AOA Cat. 2
For further information contact Gayle Bersani, Coordinator, Cancer Control Office, Roswell Park Memorial Institute, 666 Elm Street, Buffalo 14263. Tel: 716/845-4406.

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February 15–21
CLINICAL FOCUS: OBSTETRICS & GYNECOLOGY
FEE: $325. CREDIT: AMA Cat. 1 (25 hrs.)
ACOG—25 cognates
AAFP—25 hours, Prescribed
For further information contact Program Coordinator, Office of Continuing Education, Upstate Medical Center, State University of New York, 750 East Adams Street, Syracuse 13210. Tel: 315/473-4304 or 473-4606.

FUTURE EVENT

ROCHESTER

The University of Rochester Medical Center

601 Elmwood Avenue
Rochester
* Rochester Marriott Inn
5257 W. Henrietta Road
Rochester

March 5–8
A POSTGRADUATE COURSE IN ORTHOPAEDIC MEDICINE—PART II
James H. Cyriax, M.D.
For further information contact Office of Continuing Professional Education, University of Rochester Medical Center, 601 Elmwood Avenue, Box 677, Rochester 14642. Tel: 716/275-4392.

NEW YORK CITY

Beth Israel Medical Center and the American Cancer Society, NYC Division cosponsored by The Page and William Black Post-Graduate School of the Mount Sinai School of Medicine, (CUNY)

10 Nathan D. Perlman Place
* Hospital for Joint Diseases/Orthopaedic Institute
301 East 17th Street
March 25, 8:30 a.m.–4:00 p.m., Wednesday
RECENT ADVANCES IN DIAGNOSTIC MODALITIES AND THERAPY FOR BREAST CANCER
Louis Venet, M.D.
NO FEE CREDIT: AMA Cat. 1 (6 hrs.)

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* Hospital for Joint Diseases/Orthopaedic Institute
301 East 17th Street
April 8, 8:30 a.m.–4:00 p.m., Wednesday
THE ETIOLOGY, DIAGNOSIS AND MANAGEMENT OF KIDNEY STONES
Arnold Melman, M.D.
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* 10 Nathan D. Perlman Place
April 9, 8:30 a.m.–4:00 p.m., Thursday
WORKSHOP ON CHRONIC PAIN MANAGEMENT AND NERVE BLOCKS
Isaac Azar, M.D.
FEE: TO BE ANNOUNCED CREDIT: AMA Cat. 1 (6 hrs.)

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* Hospital for Joint Diseases/Orthopaedic Institute
301 East 17th Street
April 10, 8:30 a.m.–1:00 p.m., Friday
RECENT TRENDS IN DIAGNOSIS AND MANAGEMENT OF SPINAL ARTHRITIC DISORDERS
Drs. Judith Hertanu, Dhamavarapu Pramila and James T. Demopoulos
FEE: $25. CREDIT: AMA Cat. 1 (4 hrs.)

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* Beth Israel Medical Center
10 Nathan D. Perlman Place
April 29, 8:30 a.m.–4:00 p.m., Wednesday
UPDATE IN THE MANAGEMENT OF THE CLEFT LIP/CLEFT PALATE PATIENT
Drs. Saul Hoffman and Lester Silver
FEE: TO BE ANNOUNCED CREDIT: AMA Cat. 1 (6 hrs.)
For further information contact Beverley R. Baptiste, Post-Graduate Education Office, Beth Israel Medical Center, 10 Nathan D. Perlman Place, New York 10003. Tel: 212/420-2000.

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Claude Bernard, M.D., (1813–1878). Physiologist known for his discoveries concerning the role of the pancreas in digestion, the glycogenic function of the liver, and the regulation of the blood supply by the vasomotor nerves. (Courtesy New York Public Library Picture Collection).

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Before prescribing, please consult complete product information, a summary of which follows:
Indications: Relief of moderate to severe depression associated with moderate to severe anxiety
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved Contraindicated during acute recovery phase following myocardial infarction
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Adverse Reactions: Most frequently reported are those associated with either component alone drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs
Cardiovascular Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke
Psychiatric Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido
Neurologic Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns
Anticholinergic Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract
Allergic Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus
Hematologic Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia
Gastrointestinal Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue
Endocrine Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels
Other Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling
Overdosage: Immediately hospitalize patient suspected of having taken an overdose Treatment is symptomatic and supportive I V administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning See complete product information for manifestation and treatment
Dosage: Individualize according to symptom severity and patient response Reduce to smallest effective dosage when satisfactory response is obtained Larger portion of daily dose may be taken at bedtime Single h s dose may suffice for some patients Lower dosages are recommended for the elderly
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☐ An initial dosage of three tablets is recommended

☐ Dosage may be increased to six tablets or decreased to two tablets daily as necessary

☐ Once a satisfactory response is obtained, patients should be continued on the smallest dose required to maintain the desired effect

Utilize dosage options to best accommodate individual patient needs

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☐ Two tablets one hour before bedtime and one tablet midday may minimize daytime drowsiness and help relieve a common target symptom – insomnia

☐ Entire dosage h.s. to take maximum advantage of the sedative effect

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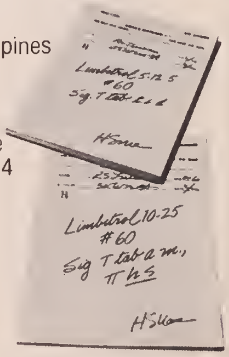
Please see complete product disclosure for other pertinent information

Limbitrol should not be used under the following circumstances:

1. Hypersensitivity to benzodiazepines or tricyclic antidepressants.
2. Concomitantly with an MAO inhibitor. To replace an MAO inhibitor with Limbitrol, discontinue MAO inhibitor for a minimum of 14 days before cautiously initiating Limbitrol therapy.
3. During the acute recovery phase following myocardial infarction.



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Letters to the Editor

PSRO strikes back; Let's total up the score

To the Editor: It sometimes takes a minor event to alert one to the fact that a major happening has taken place. While making rounds at the hospital and passing the nurses station my ears stood up on end when I heard a physician address the following remark to the nurse in charge, "I'll take this x-ray card down to the x-ray department myself. I want to get my patient out of the hospital as soon as possible." Before the advent of PSRO* such a scene would never have taken place. This is merely a minor instance of the multiplicity of changes, both in attitude and in performance on the part of physicians, that have occurred with the advent of PSRO.

The Federal law, 92-603, creating the PSRO concerned itself with the trilogy of *quality*, *need*, and *proper facility* in the care of hospitalized patients under Medicare, Medicaid, and Title V. It was designed to "promote the effective, efficient, and economical delivery of health care services." However, under the Carter Administration the emphasis has shifted almost completely from quality assurance to cost containment. The upshot has been that each year budget time becomes open season for those who want to shoot down PSRO. Representative Crane, of the House Ways and Means Committee, continues his opposition to PSRO, questioning its cost effectiveness. The Congressional Budget Office (CBO)* comes up with a savings of only four cents for each dollar expended by the PSRO and questions whether this is enough to warrant its continued fundings. The Health Care Financing Organization (HCFA),* on the other hand, estimates a saving of 27 cents. The actual savings depend on who is gathering the statistics.

The almost complete governmental focus on cost control runs contrary to the intent of the PSRO law. Witness the remarks of former Senator Wallace F. Bennett, father of the original PSRO legislation, who stated in a recent speech that he never intended the program to be primarily a cost containment tool. "Quality is the prime objective of this program, and cost containment only a by-product from reduction of unnecessary and improper utilization." Those who are actively engaged in carrying out the tenets of the PSRO program are convinced that quality care and cost control go hand in hand and this has been the crux of our modus operandi.

In the complicated process of hospital review, PSRO has made remarkable strides in assuring that patients are receiving high quality care within a cost effective health care system. This has been accomplished despite budgetary constraints. Physicians and hospitals alike are coming under the rigid scrutiny of the PSRO and are effecting many positive changes. The following are concrete examples of the various areas in which the PSROs have left their mark:

1. Pre-admission testing for elective surgical cases: in addition to saving one hospital day in the average case also reveals conditions that warrant correction before the patient can be admitted for operation.
2. Elective surgical cases have been limited to one day "preop" except for unusual circumstances.
3. Eliminated the order "discharge tomorrow" as acceptable. Most such cases can be discharged on the day the order is written.
4. PSRO has made physicians aware of the fact that "frivolous" admissions will not be tolerated. The first requirement on each chart is "reason for admission." As a result, many would-be cases that can be properly treated on the outside are not admitted to the hospital.

The record of total hospital stays in Kings County speaks for itself: Medicare Lengths of Stay: 1976—19.2 days; 1977—17.2 days; 1979—16.6 first 6 months; 1980—16 days.

Medicaid Lengths of Stay: 1979—7.4 days and 1980—6.2 days.

The lengths of stay are compromised by the fact that there are insufficient SNF* and HCRF* beds available to transfer patients once they no longer require acute hospital care. In Kings County alone there are over 400 such patients each day waiting for placement. It has been estimated that the government could save over a quarter of a billion dollars countywide each year if these transfers could be effected.

It must be pointed out that quality is never sacrificed on the altar of length of stay. A case in point is the patient admitted to the hospital for alcohol detoxification. The Social Service Division of New York State Department of Health questioned the admission of many patients for alcohol detoxification on the basis of an article written by a mid-west physician, who opted for outpatient department treatment for the bulk of detoxification patients. Experts summoned together by the Kings County Health Care Review Organization delineated criteria for hospital admission that assured quality care.

Systematic reviews of hospital charts are searching out and correcting inappropriate hospital admissions, unnecessary and/or delayed scheduling of blood tests, and procedures, and correcting overdue discharges. In some cases unneeded hospital days are carved out. (Hospital may not bill patient or carrier). All the above are effective in curtailing hospital costs.

Data collection and medical audit, also known as medical care evaluation studies (MCEs) provide a mechanism to evaluate the justification for medical and surgical procedures and at the same time permits us to compare a physician's patterns of practice with those of his peers. Thus it was possible to single out the hospitals in which excessive tonsillectomies were performed and the physicians that were doing them. In another hospital it was discovered that obstetrical patients were kept one day above the Borough average by a particular physician. This was soon corrected.

---

* SNF—Skilled Nursing Facility; HCRF—Health Care Related Facility; PSRO—Professional Standards Review Organization; CME—Continued Medical Education; CBO—Congressional Budget Office; HCFA—Health Care Financing Organization; and OHSM—Office of Health Systems Management.

Hospitals that do not come up to PSRO standards are soon called to task. In Kings County, five such hospitals were summoned to "administrative conference." Such conference requires the presence of the chairman of the hospital's board of trustees, the director of the hospital, chairman of each department, as well as the entire utilization review staff. The PSRO is represented by executive director and the board of directors. All the hospital deficiencies are laid on the line and must be corrected or the hospital forfeits its delegated status. In the case of Kings County Hospital, the deficiencies were corrected within 45 days. One hospital failed to meet the standards and was de-delegated. New York County called six hospitals for corrective action. Five submitted acceptable plans and the sixth closed down.

Physicians are likewise expected to meet acceptable professional standards. Those who do not, are required to participate in educational programs. The PSRO may recommend that those physicians with deviant patterns of practice be excluded from the Medicare/Medicaid programs.

In Area IX PSRO in New York State a significant delay in obtaining electrocardiogram consults was noted in 5 hospitals. This has been greatly reduced by dint of PSRO surveillance and further improvement is expected with continued PSRO monitoring.

Medical review in New York State PSRO Area VIII concentrated on two deficiencies. Medical audit on carotid endarterectomy revealed improprieties in physician performance of the procedure resulting in withdrawal of this privilege from a particular physician. The second deficiency noted patients misdiagnosed with bleeding peptic ulcers. Criteria for proper diagnosis were established, considerably reducing the problem.

An areawide study by the PSRO in District VI noted a high incidence of cross matching of blood with a low rate of utilization of same. Proper procedures for typing and screening of blood resulted in a dramatic improvement in blood utilization.

Nassau County reported a reduction of 29,000 days resulting from the elimination of more than one and one-half days of preoperative stay (28 percent). At the rate of $200 a day $5,800,000 was saved.

A medical audit by the Queens County PSRO uncovered the fact that congestive heart failure patients were improperly treated. Daily weights and intake-and-output records were not kept. Proper criteria by the PSRO were instituted and strict monitoring followed.

The Genesee Region PSRO found errors in medication administration in a local hospital. Working with the hospital and medical staff, new procedures were developed and nursing, pharmacy, and medical staff protocols were instituted to prevent the poor administration of medication. Working with the Rockburn Institute (an independent agency), to evaluate their PSRO effectiveness, their re-audit showed a 27 percent improvement rate.

Medical audits identify problems. Re-audits determine whether a previously uncovered deficiency has been corrected. The PSRO of Central New York performed 321 medical audits in 1979. Ninety-six re-studies indicated an 83 percent improvement rate, noting correction of deficiencies in 4 out of 5 re-audits, thus demonstrating the value of the audit system.

Education is another forte of the PSRO system. Noting deficiencies with respect to the necessity of blood transfusions and inappropriate component usage, the Five County Organization for Medical Care and PSRO in Utica, New York, introduced an areawide educational program on the appropriate use of blood components and blood transfusions. Re-audit will be performed in November to evaluate improvements. The Kings County PSRO has gone one step further by arranging to incorporate the principles of utilization review and quality assurance in the curriculum of the Downstate Medical School of the State of New York thus acquainting the budding physician with knowledge of PSRO principles by the time he enters the hospital picture.

The Bronx PSRO initiated corrective action when an audit study found that documentation of postoperative x-rays used to determine positioning a pacemaker wire was inadequate. Re-audit found 100 percent compliance. Another hospital was prohibited from admitting psychiatric patients since it was not qualified for such admissions and lacked proper staff to carry out such a program. A medical audit uncovered the fact that pneumonia patients were being discharged without the benefit of tests to evaluate pulmonary status. PSRO initiated a corrective plan and re-audit found an 80 percent compliance rate.

In some cases several PSROs are working together to improve efficiency and eliminate duplication. Such is the case with the PSRO of Eastern New York, Inc., joining hands with the Adirondack PSRO, Inc., and the PSRO of District VI, both located Upstate. The PSRO of Eastern New York and the OHSM (Office of Health Systems Management)* are evaluating the DMS-1 form used to determine patient's eligibility for long-term care placement. The Adirondack PSRO is pilot-testing the OHSM protocols developed to evaluate the quality of medical care in long-term care facilities. All findings will be shared by the three PSROs and positive results will be picked throughout the State.

There are numerous other accomplishments forged by the PSROs that include working with the OHSM in Medicaid hospital review, establishing a common data system, SPARCS (Statewide Planning and Research Cooperative Systems), in partnership with New York State.

Unbiased review of the activities of PSROs must surely convince even the "doubting Thomases" of the dedication, the purpose, and the accomplishments of the PSRO system. One must keep in mind that PSRO is a new revolutionary departure from the conventional methods of assessing, and in turn enforcing quality medical care. PSRO, like any new project, is experiencing growing pains. Nevertheless, positive results in improved quality care and cost savings are already evident. Physicians in general, and particularly those involved in the PSRO, have experienced the positive results of the PSRO review process. The same can be said of hospitals. Increased acceptance by both physician and hospital is now the order of the day. Congress should be aware of the fact that striking out in new directions is a costly matter—note the losses sustained by governmental support of HMOs. All that is asked of Congress is adequate time, better support, and the goals set by the PSROs will be accomplished.

MARTIN MARKOWITZ, M.D.
525 Neptune Avenue
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continued on page 275

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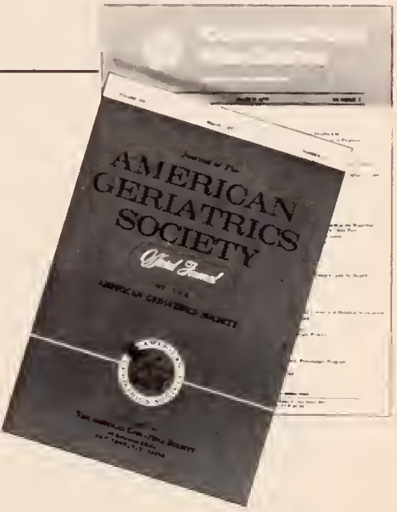

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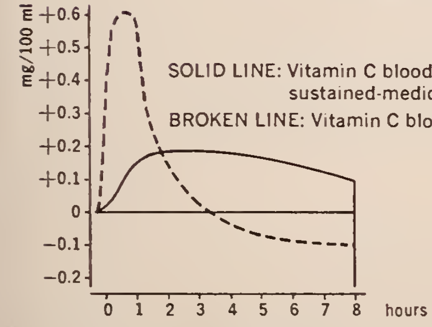

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1. Riccitelli, M.L.: Vitamin C Therapy in Geriatric Practice, J. Amer. Geriatrics Soc. 20:34, 1972.
2. Riccitelli, M.L.: Vitamin C—A Review. Conn. Med. 39:609, 1975

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Month in Washington

The Reagan Administration formally took over the reins of office with high hopes for ameliorating the nation's problems at home and abroad but with no illusions that the job will be easy. The new Congress, its ranks swelled with conservatives, met for the first time with its leaders pledging their best efforts to help Reagan carry out his legislative programs.

One of the first orders of business was confirmation of Reagan's cabinet appointments, including that of former Senator Richard Schweiker (R., Pa.) to be Secretary of the HHS (Health and Human Services) Department.

Congress faces a heavy agenda on health.

Whether national health insurance will be seriously considered depends whether the Reagan Administration chooses to push some plan such as "pro-competition" or catastrophic, both of which were cited favorably during the campaign.

Administration plans to deregulate aspects of health, to make economies, and possibly to eliminate some programs appear to be in the works.

Many major health programs are due to expire in the next two years and must be re-authorized by Congress. This affords the Administration a timely opportunity to request major changes in them.

The list of programs requiring congressional action includes Health Services Research, Statistics and Technology; Grants to States for Health Services; Primary Health Centers; National Health Service Corps; Home Health Services; Primary Care Research and Demonstration Projects; Medical Libraries; National Research Institutes; Health Research and Teaching Facilities and Training of Professional Health Personnel; Student Assistance; Capitation Grants to Schools of Medicine, and so forth; Nurse Training; Family Planning; Genetic Diseases; Sudden Infant Death Syndrome; Hemophilia; Health Maintenance Organizations; Health Planning; Health Resources Development; Health Information and Health Promotion; President's Commission on Ethics and Research; Developmental Disabilities Protection, and Alcohol and Drug Abuse Programs.

The last Congress failed to act on important bills that carry over into the new session. The HHS Department appropriations measure and aid-for-medical-education are the two major bills in this category. The Child Health Assurance bill, a priority of the Carter Administration, may be put on the shelf in the new Congress, though there is still substantial support. The Hospital Cost Containment bill is beyond salvage.

The medical education bill may face rough scrutiny. Both House and Senate last year approved measures reducing capitation aid for medical schools, but they could not agree on specifics.

Health Maintenance Organizations are worried that their allotments from the government will be pared. The National Health Service Corps comes under a HHS Secretary in Schweiker who has been very critical of its growth. The Health Planning bill awaits formidable conservative opposition.

The new membership of the two major Senate health committees was formed. The Republicans hold a two-seat edge on both groups—Senate Finance and Senate Labor and Human Resources.

Senator Edward Kennedy (D., Mass.) chose to become the ranking minority member of the Human Resources Committee rather than of the Senate Judiciary Committee, giving Kennedy a forum from which to lead the opposition on health affairs. Senator Harrison Williams (D., N.J.), former chairman of the committee, chose to be the top Democrat on another committee.

Here is the membership of the two committees that guide most health legislation in the Senate:

Prepared by the Washington, D.C., office of the American Medical Association.

SENATE FINANCE

Republicans	*Democrats*
Robert Dole (Kans.)	Russell Long (La.)
Bob Packwood (Ore.)	Harry Byrd (Va.)
William Roth (Del.)	Lloyd Bentsen (Texas)
John Danforth (Mo.)	Spark Matsunaga (Hawaii)
John Chafee (R.I.)	Daniel Moynihan (N.Y.)
John Heinz (Pa.)	Max Baucus (Mont.)
Malcolm Wallop (Wyo.)	David Boren (Okla.)
David Durenberger (Minn.)	Bill Bradley (N.J.)
William Armstrong (Colo.)	George Mitchell (Maine)
Steven Symms (Idaho)	
Charles Grassley (Iowa)	

SENATE LABOR AND HUMAN RESOURCES

Republicans	*Democrats*
Orrin Hatch (Utah)	Edward Kennedy (Mass.)

(continued on page 276)

U.S. medical labs lead world, American Medical Association finds

Laboratory medicine as now practiced in the United States is more advanced and of better quality than in any other nation in the world, says a new book from the American Medical Association.

Laboratory Tests in Medical Practice, a 211-page hardcover volume, is the work of the AMA's Council on Scientific Affairs, in response to allegations of the federal government that laboratory medical tests in the United States had a high degree of error.

The Council named an advisory panel of distinguished physicians to study in detail the laboratory test situation in this nation. The panel recommended preparation of the volume, which touches on current uses of laboratory tests, the errors to which they are subject, the quality control they require, and the clinical relevance of their increasing precision.

The book does not say that all laboratory tests are infallible. The human factor and the technology factor are involved, and sometimes test results are misleading. But this is rare, and seldom leads to problems for the patient, because physicians almost never base treatment decisions solely on a single test result.

Richard J. Jones, M.D., head of the AMA's Division of Scientific Activities and secretary to the Council, declares in the book's preface:

"The Department of Health, Education, and Welfare (now Department of Health and Human Services) has, in our view, denigrated the excellent quality control now in use (in laboratories), and ignored the medical utilization and relevance of laboratory tests."

For most tests, says Dr. Jones, the quality of performance is adequate to meet patient care needs, and where it is not adequate the problems reside in the state of the art, the appropriate patient preparation and specimen collection, clinical errors and similar factors which will not be significantly affected by federal regulation.

"Laboratory data are used to help decide whether or not to hospitalize a patient, when a diagnosis is established, when to adjust the dose of a therapeutic agent, and when to declare a patient well or no longer disabled. Seldom do these vital decisions depend solely on a laboratory test, but sometimes the test result is crucial to the decision. It thus becomes necessary for the practitioner to know just how much reliance he or she may place on a given report and how to deal with borderline or questionable results." The book gives this information.

The modern clinical laboratory in the United States has become a mainstay of medical practice with an estimated volume of three billion tests each year, says Roy N. Barnett, M.D., head of pathology at Norwalk Hospital, Norwalk, Connecticut.

In analyzing how well these laboratories are doing, Dr. Barnett says that almost all laboratories type and group blood accurately, and the great majority identify agents of disease such as bacteria and parasites properly. A major factor that can influence test results is proper handling of samples of blood and urine so that they reach the lab in good condition.

The physician must know test variability, normal ranges, sensitivity and specificity, in addition to knowledge of the disease process. When laboratory results do not fit the clinical picture, the physician suspects error and orders repeat analyses, Dr. Barnett says.

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1981

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Continuing Medical Education

Article II, Section 3, of the Bylaws of the Medical Society of the State of New York states, "An active member who fails to fulfill the requirements for continuing medical education established by the Council of the Medical Society of the State of New York shall not be in good standing. This section shall become effective March 1, 1981."

By this time every member of MSSNY has been notified that he has or has not reported the completion of his CME requirement.

Article II, Section 3, goes on to say:

> An active member as defined in Article II, Section I, who is found not to be in good standing as of March 1, 1981, or March 1 of any subsequent year, for failing to comply with Paragraph 1 of this Section shall receive reasonable notice that he must fulfill continuing medical education requirements by the last day of December of the year in which he is found not to be in good standing. An active member who does not fulfill continuing medical education requirements by the last day of December of the year in which he is found not to be in good standing shall automatically cease to be a member of the component county medical society and the State Society.

Members are reminded that these sections of the Bylaws become effective March 1, 1981, and they are requested to respond before that date if they have been notified by MSSNY that their CME requirements have not been fulfilled.

It is not the policy of MSSNY to use CME as a punitive tool. Rather the CME mandate was voted by the House of Delegates because of the fact that knowledge is one factor in the formula for measuring Physician Competence, which should be maintained and improved. It was also the sense of the House that members of MSSNY have always pursued new concepts and ideas in the practice of medicine and will continue to do so, but also that the Medical Society must develop a method of demonstrating this important fact to the public.

The Division of Scientific Activities at MSSNY welcomes inquiries from members who have questions or need assistance concerning CME requirements.

G.J.L.

Awards presented at annual convention

The *New York State Journal of Medicine* is privileged each year to honor persons who have made significant contributions through its pages. The Laurance D. Redway Award and Medal is given to the author or authors whose article, by consensus of the Associate Editorial Board, was considered the best published in the *Journal* during the preceding year. The Redway Award is given for medical writing, with consideration given to content and to presentation. The William Hammond Award is given for distinguished service to the *Journal*.

This year's awards were presented during the Annual Convention of the House of Delegates, on Sunday, September 28, 1980, at the Grand Hyatt New York.

The Eighteenth Annual Redway Award and Medal was presented to Harold L. Atkins, M.D., for his article, "Emission Tomography," that appeared in the August, 1979, issue of the *Journal*. Dr. Atkins, of the Brookhaven National Laboratory in Upton, New York, described emission tomography as a method for producing transaxial images of radionuclide distribution in sections of the body, recording localization of short-lived positron emissions. This innovation has great potential for future clinical studies.

Steven Douglas, M.D., was chosen to receive the William Hammond Award for his significant assistance and many contributions. He has served the *Journal* most diligently for a number of years, and has also helped in obtaining and selecting manuscripts in immunology and infectious diseases, his field of expertise.

The Albion O. Bernstein Award is given annually to a physician or scientist for an outstanding achievement in medicine. This award is presented under the auspices of the Medical Society of the State of New York.

FIGURE 1. G. Rehmi Denton, M.D., presenting the Laurance D. Redway Medal and Award to Harold L. Atkins, M.D.

FIGURE 2. Steven Douglas, M.D., who received the William Hammond Award from G. Rehmi Denton, M.D.

The Award for 1980 was given to George Köhler, Ph.D., of the Basel Institute for Immunology, Switzerland, for his outstanding achievement in producing monoconal homogenous antibodies by the hybridomo technique. In four years this breakthrough has revolutionized the science and technology of immunology. The Award was sent to Dr. Köhler, and he has been asked to participate in the scientific meeting at Niagra Falls, New York, in June, 1981.

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Scientific Articles

Cancer Detection in Industrial Clinic

HERBERT F. NEWMAN, M.D.
New York City
JANE D. NORTHUP, M.D.
New York City
ALEXANDER OSCHAROFF, M.D.
New York City

From the Union Health Center, International Ladies' Garment Workers' Union

A retrospective study of 720 patients with serious malignant conditions and 35 with clinically significant benign disorders was made in an industrial outpatient clinic. The value of routine examinations was confirmed for a medically unsophisticated population despite virtually cost-free medical service. The importance of contact with the physician was stressed, and measures to improve early diagnosis were outlined.

This retrospective study was undertaken to learn how the diagnosis of malignant conditions had been made in an outpatient clinic where there was no restriction in medical costs. The patients were members of the International Ladies' Garment Workers' Union for whom all medical services are free and a small number, 3.8 percent of the total, who were dependent adults and charged a token fee; over 80 percent were females, and all were in a low-income bracket. Many were Hispanics or Orientals. Every proved case of cancer in patients who regularly attended the clinic within the past seven years was included. Squamous cell carcinoma of the skin was excluded, but 35 histologically benign but clinically serious tumors of the pituitary, parathyroid, and salivary glands were studied.

Answers to three questions were sought.

1. Within a clinic setting, what were the relative values of the history, physical examination, and laboratory testing in the diagnosis of malignant disease?
2. Where was the diagnosis made? Cancer is rarely made manifest by an acute onset. Patients may seek attention from a private physician or hospital clinic, from one of our general or specialty clinics, or in the course of an annual HM (health maintenance) examination here. Appointments for this annual examination are made months or weeks in advance, never on an emergency basis, and are completely voluntary. This procedure entails an extensive self-history supplemented by conversation with a physician; a physical examination including a digital rectal study and hemocult slide test on unprepared bowel; a pelvic examination and cervical cytology by a gynecologist; and tonometry, visual acuity, and fundoscopy by an optometrist. Each patient has a 12-channel electrocardiogram and an x-ray of the chest, or, if requested by the patient, a screening mammogram in women past the age of 50. The laboratory tests performed one hour after an oral dose of 75 Gm. of glucose embrace a sequential multiple analyzer (SMA) 12; serologic factors; Coulter hemoglobin determination, white and red blood-cell counts, and hematocrit; urinalysis; and in selected patients a sickle-cell screen. Although the diagnosis may not have been firmly established at the time of examination, statistical credit was given to one of these three places if there had been sufficient suspicion which led to definitive further measures.
3. How often do malignant disorders go undiscovered at an annual examination?

Findings (Table I)

Breast. A mass found by self-examination was reported by 49.3 percent of 199 cases of carcinoma of the breast, compared with 39 percent for a reported group trained in self-examination,[1] 34.6 percent in a family-practice screening,[2] and 84 percent for a surgical series;[3] an additional 13.6 percent complained of other symptoms referrable to the breast, and in 34.3 percent an asymptomatic breast cancer was found only by the examining physician. Although mammography was accepted by few patients, five very early cancers were discovered only by this method. Conversely, in two patients whose mammogram findings were reported as normal, a small palpable cancer was found. An HM examination within one year prior to the established diagnosis failed to detect a breast tumor in 38 patients, or 19 percent of the breast carcinomas, as compared with 25 percent in Hicks et al.[4] series.

Colon and rectum. Symptoms suggestive of bowel disease were found in 101 patients, or 73.2 percent of the 138 with carcinoma of the colon or rectum; an asymptomatic palpable tumor was found

TABLE I. Retrospective study of cancer diagnoses made in outpatient clinic

	Where Diagnosed						Diagnosis Suggested By			
Tumor Site (malignant)	Number	Clinic	Outside Facility	HM	Symptom at HM	HM in Preceding Year	History	Physical	X-Ray	Laboratory
Body										
Lung, primary	79	50	1	28	11	10	46	...	33	...
Lung, primary unknown	7	6	0	1	1	...	3	...	4	...
Breast	199	159	6	34	14	38	125	69	5	...
Gastric and esophageal	33	20	6	7	7	33	33	...	...	
Colon and rectal	138	87	28	23	18	21	101	4	8	25
Gallbladder, bile duct, pancreas	10	6	1	3	3	5	10	...	...	...
Leukemia	44	31	2	11	1	5	19	4	...	21
Lymph node malignancy	18	8	5	5	4	3	10	5	3	...
Gynecologic	98	55	16	27	5	16	39	18	...	41
Urologic	51	30	5	16	5	7	36	9	4	2
Melanoma	10	9	0	1	0	2	3	7	...	...
Head and Neck										
Thyroid	12	9	1	2	1	2	12	...	...	...
Larynx	6	5	1	0	0	0	6	...	...	...
Intraoral	4	4	0	0	0	0	4	...	...	...
Cervical node, primary	2	1	0	1	1	0	1	1	...	...
Parotid gland	2	2	0	0	0	0	1	1	...	...
Miscellaneous										
Brain	1	1	0	0	0	0	1	...	...	...
Liposarcoma	1	1	0	0	0	0	1	...	...	...
Spindle-cell sarcoma	1	1	0	0	0	0	1	...	...	...
Malignant schwannoma	1	1	0	0	0	0	1	...	...	...
Myeloma	3	1	0	2	0	0	2	...	...	1
TOTALS	720	487	72	161	71	142	455	118	57	90
Tumor Site (Benign)										
Meningioma	3	3	0	0	0	0	3	...	...	...
Pituitary	11	9	0	2	2	2	11	...	...	...
Parathyroid	13	4	1	8	0	0	4	...	...	13
Salivary gland	8	5	0	3	3	1	7	1	...	...
TOTALS	35	21	1	13	5	3	25	1	...	13

in 4 others. In five patients, a blood-positive hemocult alone led to the diagnosis. In the remainder, the diagnosis was established by barium-enema radiography ordered for unexplained anemia in 20, weight loss in 2, adult-onset hernia in 2, prolapse of the rectum in 1, hemorrhoids in 1, and vague abdominal discomfort in 6 patients; 21, or 13.7 percent, of the patients had had no malignant disorders discovered at the time of their annual health examination, one year prior to the established diagnosis. At the time of the annual examination, seven were asymptomatic; seven complained only of weakness and weight loss; and in seven cases with bowel symptoms, barium-enema radiographic findings were reported as normal, to be corrected by subsequent colonoscopy or repeat x-rays.

Leukemia. There were 35 patients with chronic lymphatic leukemia, 7 with chronic myelogenous, 1 acute lymphatic, and 1 hairy-celled leukemia. All the diagnoses were made by peripheral blood study which in a few cases demanded bone-marrow confirmation. Nonspecific complaints, such as weakness or weight loss, were reported by 52.3 percent, and the remainder were totally asymptomatic. Abnormal physical findings were confined to splenomegaly in two patients and lymphadenopathy in two other patients. Four patients had been carried as examples of primary lymphocytosis, and one as a myeloproliferative disorder, for more than one year by trained hematologists before being reclassified as leukemic patients. The diagnosis was not made in five patients at an annual examination within a year prior, at which time all were asymptomatic.

Lymph node cancer. There were four patients with lymphosarcoma, nine with lymphoma, and five with Hodgkin's disease; all were proved by open biopsy. The diagnosis was suggested by history in 10 patients, chest x-ray film findings in 3, evidence of adenopathy on physical examination in 4, and exploratory laparatomy in 1 patient. Three of these patients had had an HM examination within the past year, at which time they had had no complaints and presented no abnormal physical findings.

Esophageal and gastric cancer. There were 27 patients with gastric carcinoma, 1 with gastric lymphoma, and 5 with esophageal carcinoma. All had upper gastrointestinal symptoms. The tumor was palpable in only one case, and, in another, a hepatic metastasis could be felt. Seven patients had had an HM examination prior to diagnosis. Although at that time they were symptomatic, their x-ray film findings were reported as normal in three patients, as a benign ulcer in one, and as gastritis in three other patients. Subsequently, the initial impression was corrected by endoscopy.

Gynecologic cancers. There were 98 gynecologic malignant conditions, with 1 vulvar, 1 vaginal, 8 ovarian, 2 fallopian, 22 endometrial, 38 invasive cervical (2 in cervical stumps), 19 intraepithelial cervical, 4 cervical adenocarcinomas, and 2 endometrial sarcomas. The diagnosis was suggested by history in 39.9 percent, by examination in 18.3 percent, and by cytologic evidence alone in 41.8 percent. False-negative Pap (Papanicolaou) smear reports were obtained in 7.9 percent of the invasive carcinomas of the cervix and 6.2 percent of the intraepithelial cervical carcinomas, compared with 11.7 and 6.6 percent respectively in Jafari's[5] experience. There were 16 patients with carcinoma of the cervix who had had gynecologic examinations with cytologic evidence reported within one year prior to diagnosis, at which time they were asymptomatic; 14 were considered cancer-negative, and 2 as "atypia."

Pulmonary cancer. There were 79 patients with primary carcinoma of the lung. Significant pulmonary symptoms were reported by 46, and the diagnosis was made solely by x-ray film evidence in the 33 remaining; 17 of the 28 cases discovered in the course of an HM examination were asymptomatic. One patient was ultimately diagnosed at a hospital where she was being treated for unresolved pneumonia. Fifteen patients had had chest x-rays within one year prior to diagnosis. No lesion was noted in eight asymptomatic patients. In those with symptoms, x-ray film findings were considered normal and were misinterpreted as granulomata in five. There were seven cases of malignant conditions metastatic to the lungs from undetermined sources; only three were symptomatic, and all were diagnosed only by chest x-ray film.

Urologic cancer. Adenocarcinoma of the prostate was found in 23 males, all of whom were symptomatic; the diagnosis was suggested by palpation in 9, by x-ray film evidence of bony metastases in 4, and at surgical exploration for presumably benign prostatic adenomas in 10 patients. Only the patients with bony metastases displayed an elevated serum acid-phosphatase. Of six patients who had had an HM examination within nine months prior to the established diagnosis, two were considered normal, and four as examples of benign disease. One other patient had had an open suprapubic prostatectomy for adenoma one year prior to being diagnosed as having carcinoma.

There were 23 patients with transitional cell carcinoma of the urinary bladder; all but 1 complained of gross hematuria. The neoplasm in the asymptomatic patient was disclosed at cystoscopy, performed for an unexplained pyuria. In 14 patients who had had an intravenous pyelogram, the tumor was demonstrated within the bladder in 8, and within a vesical diverticulum in 1. Two patients had had an HM examination within one year prior. At that time, both were asymptomatic and displayed normal urine values.

There were five patients with renal carcinoma, four of whom were symptomatic and one who was investigated for persistent microscopic hematuria. Only 1 case had a previous health maintenance examination. Five months prior to diagnosis she was asymptomatic and had normal urine values.

Biliary and pancreatic cancer. There were three patients with carcinoma of the gallbladder, three with carcinoma of the extrahepatic ducts, and four with carcinoma of the pancreas. All were considered suffering from benign biliary tract disease and were subsequently found to have malignant disorders at open operation; all were symptomatic. Seven of the 10 patients were jaundiced; 2 had been found jaundiced at the annual HM examination. Four others, considered benign biliary disease, had had an HM examination within four months of referral to the hospital.

Cancer of head and neck. There were 12 patients who complained of a mass in the region of the thyroid which proved to be carcinoma; radioactive scan (scintiscan) findings revealed a cold lesion in 7, and normal uptake in 3 cases. Thyroid activity as measured by L-thyroxine (T4) was classified as euthyroid in eight, hypothyroid in one, and hyperthyroid in one patient. Two patients had had an HM examination within one year prior to diagnosis, and both were considered benign at that time because of a long history of a thyroid tumor.

Laryngeal carcinoma was recognized by laryngoscopy in six symptomatic patients. There were single examples of carcinoma of the tongue, tonsil, mandible, and maxillary sinus; all were symptomatic, and the diagnosis was easily made by examination. Carcinoma of the cervical lymph nodes from an undetermined source was present in two patients; one was asymptomatic and the other complained of hoarseness, although no lesion could be found at laryngoscopy. None of these patients had had a previous HM examination.

Carcinoma of the parotid gland was found in two patients. In addition, there were seven patients with mixed tumors and one with a Warthin's tumor of a salivary gland. The cancers could not be clinically distinguished from the benign tumors. Nine of the 10 tumors were first found by the patient, and the tenth by the physician. The one patient, a benign case, who had had a previous annual examination, was advised of the lesion at that time.

Malignant melanoma. There were 10 patients with malignant melanoma: 8 of the skin, 1 of the retina, and 1 of the lung; only 3 had symptoms: change of appearance of a nevus in 2 and sudden blindness in 1 patient. The rest were diagnosed by the physician by gross appearance. One vulvar melanoma had been overlooked at an HM examination three months prior.

Miscellaneous cancers. Multiple myeloma was confirmed in three patients. Two complained of pain in the ribs; an abnormally high serum globulin in the course of an annual examination led to the diagnosis in the third. One patient with a mass on the thigh of 25 years' duration, which had not changed in size, proved to have a liposarcoma. Two soft-tissue cancers, a spindle-cell sarcoma and a malignant schwannoma, were first noticed by the patients, and excised. A single patient with bizarre personality changes proved to have a frontal lobe glioma by CAT (computerized axial tomography) scan and surgery. No patient in this group had had previous HM examinations.

Benign parathyroid tumors. Persistent hypercalcemia was found in 47 patients. Although all were tested, only 13 demonstrated an elevated serum parathormone titer. Four of these had symptoms that retrospectively could have been attributed to hyperactive parathyroids: renal calculus in one, osteoporosis in two, and bone pain in one patient; the rest were only found on chemical screening. Recommendations were made that all 13 patients have a parathyroid exploration, but only 4 accepted; adenomas were found in each of the 4. The hypercalcemic patients with normal parathormone levels were classified as belonging to the 5 percent upper level expected from a bell curve, except for two patients with secondary hyperparathyroidism.

Benign intracranial tumors. Three benign meningiomas were found at surgery. Two patients who displayed personality changes and neurologic deficiencies were diagnosed by neurologists, and the third with tinnitus, hearing loss, and vertigo by an otolaryngologist. All three tumors were demonstrable on CAT scans. One patient with classic symptoms and physical findings was easily diagnosed as having acromegaly, confirmed by surgery. There were 10 cases of galactorrhea, with 3 also complaining of amenorrhea. The serum prolactin levels were elevated in all, and the sella turcica was eroded in only 3 of 10 patients x-rayed. Microadenomas were found in three patients for whom surgery was recommended.

Comment

A review of our patients with malignant conditions reveals that the diagnosis was prompted by the patient's history in 63.2 percent, the physical examination in 16.4 percent, laboratory screening in 12.5 percent, and x-ray film findings in 7.9 percent. A multiphasic type of examination by paramedical personnel would be of minimal value when the development of a history and a physical examination by a physician is so important; this has the added virtue of detecting significant nonmalignant disorders, such as uterine fibromyoma, rheumatic disease, and so forth. In addition, the personal confrontation permits the physician to reinforce preventive measures.

In about two thirds of the cases, the diagnosis was made in one of our medical or specialty clinics; 10 percent were diagnosed by family physicians or hospitals, and 22.6 percent in the course of a routine HM examination. In a review of 10 industrial programs, Schor et al.[6] reported that 43 percent of those who died of carcinoma had been diagnosed at a screening examination. The early diagnosis of cancer requires consultation with a physician as soon as symptoms appear.

The necessity for periodic medical examinations has been recently criticized, largely on a cost-effective basis.

This may be valid for the type of patient who seeks urgent medical attention for symptoms. However, in our medically unsophisticated patient population, despite the absence of any financial barrier, almost half of those whose cancer was diagnosed at an annual routine examination were suffering significant symptoms at that time. Repeated indoctrination of these patients is necessary. The ability of mammography to complement physical examination has been well established,[7] but we have had great difficulty in persuading our clientele to accept this screening procedure. Not only must self-examination of the breast be taught and encouraged at an early age to prevent any potential psychologic trauma, but the patient must see a physician at the first indication of a mass.

An annual screening HM examination within one year prior to the established diagnosis of cancer failed to detect the tumor in 19.7 percent of the cases. In some cases, the tumor may have arisen after the examination. For others, our tests may be too insensitive to recognize them at an early stage. However, critical review does reveal physician errors of both omission and commission. Several of the breast lesions were overlooked through a suboptimal examination. Considerable experience and skill are necessary to detect a small asymptomatic tumor. Within the past year, we have delegated this examination to the gynecologists with salutary results.

A long history does not preclude cancer, and early needle biopsy of thyroid and prostatic nodules would have been helpful. Endoscopy should have been employed earlier in patients with gastrointestinal symptoms and normal x-ray film findings, in all cases of esophageal and gastric disease, and in patients with obscure pancreatic or biliary tract disease. Wider use of CAT scans and sonography would have differentiated solid from cystic tumors of the pelvis, abdomen, and thyroid. Recent denigration of the value of early diagnosis in pulmonary carcinoma has been disputed by Widow, Anstett, and Bartel[8] in a large series from East Germany. Cytologic evidence and tomography followed by CAT scan and, if necessary, bronchoscopy would have led to earlier diagnosis in patients with pulmonary symptoms and normal chest x-ray film findings, or with small unresolved infiltrates.

Presumably 70 percent of colorectal cancers are within the reach of the rigid sigmoidoscope. Routine screening by this technique in our clinic would yield a diagnosis of cancer in approximately 1 in 4,000 asymptomatic patients. Gilbertsen[9] has presented impressive evidence for its value not only in the detection of small bowel tumors but in the eradication of premalignant adenomas. Difficulty in preparing the patient, the risk of perforation, and the reluctance of our patients to accept this procedure have dissuaded us from using it for screening.

The fiberoptic sigmoidoscope offers an attractive alternative but its fragility, capital cost, and difficulty in sterilization have militated against its routine use.

The vast majority of hyperfunctioning parathyroid tumors are discovered by chemical screening. We have rarely encountered the classic recurrent renal calculi, bone cysts, or severe gastrointestinal symptoms.[10] Microadenomas of the pituitary with hyperprolactinemia have presented us with no diagnostic problem if there is sella turcica erosion. At present, they are the only ones for whom surgery may be recommended unless the patient is young, desirous of childbearing with amenorrhea, and with a very high prolactin titer.

Annual screening procedures run the risk of giving a patient the false impression that he is totally free of cancer. It is morally necessary for the physician to inform him of the limits of reassurance available by this type of examination.

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Racquetball players suffer eye injuries

Racquetball is an indoor sport of rapidly growing popularity among Americans of all ages and both sexes. It is now played by some 7 million Americans.

But racquetball players have an unusual accident hazard. They hit themselves in the eye with their own racquets.

In a report in the November issue of an American Medical Association publication, Archives of Ophthalmology, Marcos T. Doxanas, M.D., an eye specialist at Greater Baltimore Medical Center, reports on the growing influx of eye injuries among racquetball players in Baltimore, and presumably elsewhere.

During a three-month period in the winter of 1978–79, some 37 eye injuries from racquetball were recorded at the medical center, Dr. Doxanas says. Of these, 15 were caused when the player was hit in the eye by the ball. The other 22 were gashes or bruises over the brow that occurred when the player struck his (or her) own forehead with the racquet.

All racquet sports, including tennis and squash, produce eye injuries now and then, but the incidence in racquetball far exceeds the other games, he says. There were five eye injuries among tennis players in the same period in which 37 racquetball players had eye injuries.

The player who gets hit in the eye by the ball often is in the front position in the court, and turns around to see his opponent return a shot. The ball is moving too fast to duck. Or the ball may be deflected from the side of the player's own racquet. The eye injuries were not permanent. One required surgery, and the others healed with medications. Racquetball eye injuries are less severe than those from tennis or squash, probably because of the softer ball, he says.

None of the players were wearing eye glasses or protective eye shields. Sports glasses with tempered lenses and sturdy frame, or a sports eye guard, would have prevented all of the 37 injuries, Dr. Doxanas declares.

Breast Abscess

Management in subareolar and peripheral disease

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The great majority of breast abscesses occurring in nonlactating women are located beneath or adjacent to the areola; a small number can arise more peripherally. The subareolar or periareolar abscess begins as an infection in the lactiferous duct or sinus, sometimes draining through the nipple, sometimes rupturing through the duct and forming an abscess. Spontaneous rupture of the abscess through the skin and subsequent development of a fistula to the involved duct can occur.[1,2] Fistulization can also follow conventional treatment of incision and drainage of the abscess.[3,4] Eradication of the fistula requires excision of the entire involved duct, and such treatment may leave significant deformity of the nipple and areola.[1,3–5] Recurrent fistulization even after apparently adequate operations occurs frequently and results in repeated infections and repeated fistulous drainage.

A treatment regimen was developed, which avoided the conventional surgical approach for breast abscess and substituted instead aspiration of the abscess cavity, coupled with systemic antibiotics. Success in treating breast abscess and avoiding fistulization by this form of management is encouraging and is the subject of this article.

Materials and methods

Forty-six patients were treated for nonpuerperal breast abscess from 1961 to 1979, 44 women and 2 men; 2 patients had bilateral abscesses. Their ages ranged from 12 to 60 years, with a median age of 32.

Of the 48 abscesses treated, 42 were acute when first seen and 6 were recurrent infections or chronic fistulas; 11 of the acute abscesses were located in the periphery of the breast and 31 in a subareolar location. All six of the chronic abscesses were periareolar or subareolar. All but one of the 31 acute subareolar abscesses, all 11 peripheral abscesses, and 2 of the chronic cases were treated with our regimen.

Diagnosis was established by aspiration of purulent material through an 18-gauge needle. The aspiration was preceded by injection of a small amount of local anesthetic with a fine-gauge needle. The amount of pus aspirated varied considerably, often no more than 0.5 cc., merely sufficient for confirmatory smear and culture. Some of the abscesses contained considerably more pus, the largest having 30 cc. *Staphylococcus aureus* was isolated in 13 cases, *Staphylococcus epidermidis* in 5 cases, and *Proteus mirabilis* in 10 cases. In the remaining 13 instances, no organism could be cultured, since several of the patients had been given antibiotics before they were first seen.

Oral antibiotics, either a penicillin derivative or cephalexin, were prescribed immediately following the initial aspiration. After determining antibiotic sensitivity of organisms cultured, it was deemed necessary to change medication in two cases. Patients were followed at two- to three-day intervals until repeated aspiration of the cavity failed to yield any pus, then at longer intervals until the induration subsided completely. In only one instance was incision and drainage of the abscess performed. Of the six cases of recurrent abscess, the two that were acute were similarly treated by aspiration and antibiotics. Another patient with a recurrence was treated by incision and drainage, and three who had nipple fistulas were treated by excision of the infected ducts.

Results

All the acute abscesses treated by aspiration and antibiotics cleared up. After follow-up averaging one and one-half years, three of the acute subareolar abscesses recurred; one of these responded with complete resolution to repetition of the conservative regimen. Two, although again responding promptly, recurred a third time and were then treated by excision of the involved duct. The only acute subareolar abscess, treated by incision and drainage, developed a nipple fistula, which required excision of the duct.

The conservative regimen cured two patients with chronic infection. Excision of diseased ducts was successful in two chronic cases, but a third showed persistence of a fistula. A patient with chronic infection undergoing incision and drainage developed a nipple fistula. All nipple fistulas were seen in patients who had undergone incision and drainage sometime in the course of their disease; none occurred in any of the patients who did not undergo this procedure.

Comment

Controversy abounds regarding preferred treatment for breast abscess because of several factors. The abscess may materialize as a mass in the breast associated with varying degrees of erythema and tenderness, such that differentiation of the lesion from a neoplasm is important. The frequent sequelae of recurrent infection and establishment of a fistula to the base of the nipple from a chronically infected subareolar duct have caused disagreement over the reason for such complications of therapy.

Mills[6] cautioned that antibiotics alone failed to cure breast abscesses, and he insisted on timely incision and drainage; Bates et al.[7] reported that timely use of antibiotics might abort incipient abscess. Haagenson[8] and Kleinfeld[9] proposed that when the infection first appears, drainage should be performed. Once the infection subsides, excision of the diseased milk sinuses and surrounding fibrosis should be carried out. Cunningham[3] emphasized that both the acute and chronic abscess must be treated by excision of the involved duct. He[3] and Livingston and Arlen[4] recognized that incision and drainage often result in a duct fistula. Zuska, Crile, and Ayres[2] and Atkins[1] implicated spontaneous rupture of periareolar abscess in the development of fistula to a mammary duct. They[1,2] and Patey and Thackray[5] advocated excision of the tract and involved duct in the treatment of a nipple fistula.

The persistent pain and drainage of recurrent subareolar abscess and nipple fistula are distressing and at times have led some surgeons to advocate mastectomy for this benign lesion. Although the initial infection is almost always caused by a single organism, as soon as the abscess is incised and the duct system opened, secondary bacterial invasion is inevitable. Antibiotic administration is therefore often ineffective with recurrent or chronic infections, resulting merely in the isolation of resistant organisms.

Many have described the pathophysiology of subareolar or periareolar abscess as originating in duct abnormality, with squamous metaplasia of the normally cuboidal duct epithelium, plugging of the lumen with keratin, dilatation of terminal milk sinuses, and ultimate rupture of the duct into adjacent breast tissue.[2-4,9-12] Many feel that this underlying duct condition causes the tendency to recurrence that we saw in one fifth of our cases. However, it seems more likely that the continued repeated infection of the duct results in the squamous metaplasia. The presence of squamous metaplasia has been demonstrated in surgical specimens when excision of the duct system has been performed for chronic recurrent abscess. The disease of breast abscess is more common in younger women than in older women, whereas squamous metaplasia occurs more frequently in the older patient. The disease of subareolar abscess occurs in the absence of nipple inversion as well as in the presence of nipple inversion secondary to squamous metaplasia.

The chronic recurrent subareolar abscess requires excision of the involved duct for cure. Radial division of the tissues overlying the duct and excision of the underlying duct will succeed, whereas approach through a circumareolar incision is unsuccessful owing to failure to excise the entire involved duct. Surgery seems appropriate in all patients suffering two recurrences. The success of nonoperative management in seven eighths of the patients in this series suggests that prompt recognition of acute breast abscess, and treatment by aspiration, culture, appropriate antibiotics, and repeated aspiration if necessary, can avoid the development of recurrent infection and nipple fistula.

An alternative to conventional treatment of breast abscess by incision and drainage was formulated to avoid the frequent recurrence and fistulization. Forty-one nonpuerperal breast abscesses (30 subareolar and 11 peripheral) were treated with repeated aspiration and antibiotics. Diagnosis was verified by aspiration of pus. The regimen was effective in curing all peripheral and 28 out of 30 subareolar abscesses. No nipple fistula developed. Treatment by repeated aspiration and antibiotics controls breast abscess and avoids recurrence and nipple fistulization.

Summary

Subareolar breast abscess is an uncommon but not rare lesion which, when treated by incision and drainage, frequently results in recurrent abscess and fistulization. Treatment of the acute abscess by repeated aspiration and antibiotics is effective in controlling the infection and avoids the subsequent development of fistula and recurrent abscess.

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Prostatic Carcinoma

Clinical and surgical staging

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Carcinoma of the prostate is the third most common cancer in males in the United States. It accounts for approximately 20,000 deaths per year.[1] If left untreated, approximately 85 percent of such patients will be dead within three years of diagnosis.[2] Depending primarily on the stage of the disease at diagnosis, various therapeutic alternatives are available.[3] Thus, accurate staging at the time of diagnosis is an important determinant of further therapy.

Several systems of staging prostatic carcinoma have been proposed, but none has received universal acceptance.[4–9] At the present time, all systems of clinical staging are of limited usefulness because of the wide spectrum of tumor volume and biologic aggressiveness represented within each stage, and because there is a lack of a consistently sensitive method of detecting early metastasis.

In most discussions of carcinoma of the prostate there is some confusion regarding "clinical" and "pathologic" staging. In the following discussion we have tried to identify whether the staging is clinical or pathologic. The former, of course, refers to the assignment of stage to a patient using clinical methods of evaluation short of surgery or autopsy. It is clear, as a general rule, that the clinical stage will show disease to be somewhat less extensive than after lymphadenectomy and/or autopsy.

This article will review the current clinical and surgical staging parameters and emphasize newer methods of determining the extent of the disease process. These latter methods of staging are of extreme importance because available evidence indicates that clinically demonstrated prostatic carcinoma is very frequently understaged.[10,11]

Staging classification of carcinoma of the prostate

In 1956, Whitmore[4] introduced the four generally accepted stages for classifying adenocarcinoma of the prostate. In the subsequent 25 years various modifications have been incorporated (Fig. 1).

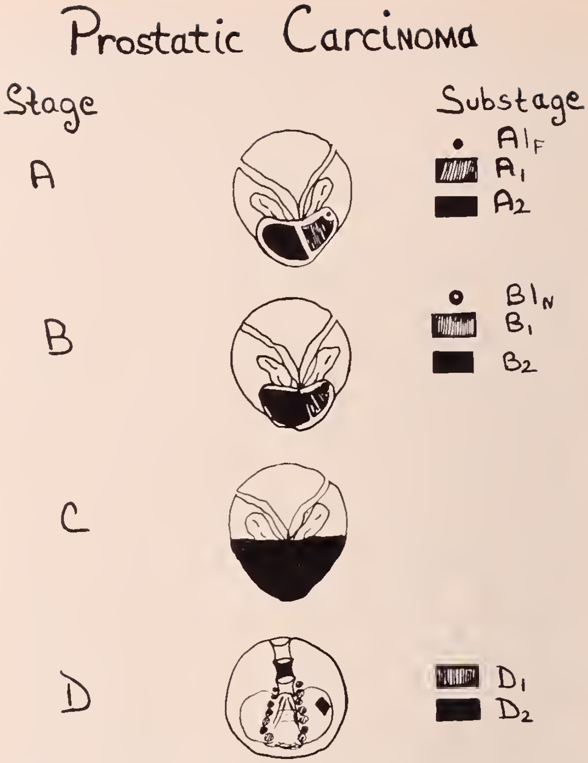

FIGURE 1. Stages and subgroups of prostatic carcinoma[4,5,16] can be broken down as follows: Stage A-1-F, microscopic focus of carcinoma. Stage A-1, three or fewer microscopic foci of well-differentiated carcinoma, or microscopic tumor involving less than one lobe. Stage A-2, multifocal or diffuse carcinoma. Stage B-1-N, solitary nodule of firm or stony consistency no more than 1.5 cm. in diameter. Stage B-1, nodule involving most of one lobe. Stage B-2, diffuse nodular involvement of both lobes. Stage C, firm induration or stony hardness extending through the prostatic capsule. Stage D-1, metastasis to lymph nodes below aortic bifurcation. Stage D-2, metastasis to lymph nodes above aortic bifurcation or to distant sites.

Stage A. Stage A is represented by a focus or foci of carcinoma within the prostate not detected clinically but found incidentally by the pathologist, in tissue removed at prostatectomy for benign prostatic hypertrophy. Thus, Stage A is a microscopic focus of carcinoma arising in the prostate which is not indurated on rectal examination and is not accompanied by any evidence of metastasis. By definition, the serum acid phosphatase is normal. Between 5 and 10 percent of all pathologic specimens examined following an enucleative prostatectomy, or a transurethral resection of the prostate for clinically benign disease, reveal microscopic adenocarcinoma.[12–14] Nearly all of these are grade I and appear as isolated microscopic foci.[15]

Stage A tumors can be further classified by histologic criteria into three biologically meaningful subgroups (Fig. 1)[5,16]: (1) Stage A-1-F, a microscopic focus of carcinoma, (2) Stage A-1, three or fewer microscopic foci of well-differentiated carcinoma or microscopic tumor involving less than one lobe, and,

(3) Stage A-2, multifocal or diffuse carcinoma, more extensive than Stage A-1.

Approximately 24 percent of patients with clinical Stage A-2 carcinoma already have metastasis in the pelvic lymph nodes.[17] In general, the prognosis becomes worse as the tumor stage increases.[9,11,18] Stage A-1-F and Stage A-1 tumors rarely progress and metastasize.[5] However, Stage A-2 tumors frequently progress to a higher stage.[9,17,19-21]

The overall survival of patients over 70 years of age with Stage A carcinoma treated by transurethral resection of the prostate alone approaches that of the age-matched normal population. However, the survival of younger patients or patients with poorly differentiated Stage A tumors is considerably less favorable. Thus, if there are more than three low-powered fields of malignancy, Stage A-2, or any at the margin of the enucleated specimen, probably Stage A-2, or if the tumor is less than well-differentiated, Stage A-1 or Stage A-2, and the patient is relatively young, one might consider radical prostatectomy or radiation therapy, for example: external radiation therapy or ^{125}I interstitial therapy, even in Stage A disease.[5,16,18,22-28] This assumes a negative staging work-up (as described). However in contradistinction, if there are fewer than three low-powered fields of malignant tissue, Stage A-1; with none at the margin of the enucleated specimen; the tumor well-differentiated; and the patient somewhat older; then a number of clinical studies strongly suggest that it is probably better to leave the patient untreated. The assumption is that the patient has already been adequately treated by the enucleative prostatectomy or the transurethral resection of the prostate.[16,18,27,28]

If a decision is made neither to perform a radical prostatectomy nor to administer radiation therapy after Stage A-1 carcinoma of the prostate is found in an enucleative prostatectomy specimen, it is advised that interval cystoscopy for three months be performed and that endoscopic and needle biopsies of the remaining peripheral prostatic tissue be obtained.[29] If diagnosis of carcinoma of the prostate was made by transurethral resection of the prostate and Stage A-1 carcinoma of the prostate is found, a repeat circumferential transurethral sampling of the prostate remnant should probably be performed either in six weeks or three months before deciding on therapy to rule out whether or not residual carcinoma indicates a true diffuse or multifocal carcinoma, Stage A-2. Up to 26 percent of patients with apparent Stage A-1 disease have, after repeat transurethral sampling of the prostate remnant, significant residual tumor and are reclassified as Stage A-2.[30] These repeat and interval studies are vitally important because the prognosis is different for Stage A-1 and Stage A-2 carcinoma of the prostate.[18,27,28,30,31]

Stage B. Stage B is represented by tumors confined to the prostate that are clinically evident on digital rectal examination. These tumors comprise approximately 15 percent of prostatic carcinomas at the time of diagnosis.[32] In this stage, serum acid phosphatase activity by conventional chemical methods is normal. These patients have no clinical, laboratory, or radiologic evidence of metastases or of local extension of the disease. They usually do not have urinary symptoms.

The rational choice of alternative treatment plans for carcinoma of the prostate depends on accurate determination of clinical staging of the extent of disease. Until recently, such staging was accomplished primarily with serum acid phosphatase and x-ray bone survey, and resulted in significant understaging. Newer diagnostic modalities, including immunoassay of prostatic acid phosphatase, radioisotope bone scans, lymphangiography, CAT scanning, and lymphadenectomy have revolutionized the investigation of patients with carcinoma of the prostate. It is, therefore, essential that physicians be completely familiar with the advantages, disadvantages, reliability, and morbidity of these new methods of evaluation.

Stage B tumors can be further subdivided by histologic criteria into three biologically meaningful subgroups (Fig. 1)[5,16]: (1) Stage B-1-N, a solitary nodule of firm or stony consistency no more than 1.5 cm. in diameter, (2) Stage B-1, a nodule involving most of one lobe, and (3) Stage B-2, diffuse nodular involvement of both lobes. The reported incidence of pelvic lymph-node metastasis in patients with clinical Stage B-1 tumors is between 7 and 21 percent[33-36] and for Stage B-2 tumors, 14 to 45 percent.[17,33,34,37] In general, the prognosis becomes worse as the tumor stage increases from Stage B-1-N to Stage B-2.[5] The fact that Stage B prostatic carcinoma poses a significant threat to the survival of the host is supported by the 10-year death rate of approximately 20 percent of patients with early Stage B lesions despite operative attempts to cure.[38]

Stage C. Stage C is represented by tumors with firm induration, or stony hardness, that extend through the prostatic capsule but have not metastasized (Fig. 1). These patients frequently have symptoms of prostatism and evidence of extensive local growth, often extending beyond the capsule and involving the seminal vesicles, bladder neck, or lateral side wall of the pelvis. These tumors comprise approximately 40 percent of prostatic carcinomas at the time of diagnosis.[32] While serum acid phosphatase activity is also usually normal at this stage, at the time of diagnosis, it has been reported to be elevated (prior to the use of more recently advocated staging methods) in up to 25 percent of Stage C tumors.[39] Since approximately 40 percent of patients with clinical Stage C tumors and elevated acid phosphatase developed metastases within two years,[40] and only 20 percent of patients with clinical Stage C tumors with normal acid phosphatase developed metastases during a nine-year follow-up,[34] elevated serum acid phosphatase is generally accepted as being evidence of extension beyond the prostate. With staging pelvic lymphadenectomy the incidence range of pelvic lymph-node metastasis in patients with clinical Stage C disease is found to be 33 to 85 percent.[34,35,37,41]

Stage D. Stage D is represented by metastatic carcinoma evident on clinical or pathologic examination. Stage D tumors comprise approximately 35 to 40 percent of cases at the time of diagnosis.[32]

There appears to be a rationale for subdividing patients with Stage D carcinoma of the prostate into two subgroups (Fig. 1): (1) Stage D-1, patients with metastasis to the pelvic lymph nodes below the aortic bifurcation, with or without elevated serum acid phosphatase, and (2) Stage D-2, patients with lymphatic node metastasis above the aortic bifurcation or metastasis to other sites, such as the bones, liver, or lungs.[16] Serum acid phosphatase activity is elevated in approximately two thirds of patients with Stage D disease.[42] Most of these tumors are high grade,[43] and most patients with Stage D carcinoma ultimately die of the disease within four to five years.[42] The overwhelming majority of untreated cases with Stage D disease will be dead within one year.[44] Frequently, these patients have either clinically evident soft-tissue metastases, bony metastases, unilateral or bilateral hydronephrosis, and/or elevated serum acid phosphatase. If, at the time of diagnosis, a patient has bony metastasis, an elevated serum acid phosphatase, and hydronephrosis, the outlook for survival is dismal. Even with hormone treatment for Stage D disease, 90 percent of patients are dead in 10 years, 50 percent are dead in less than 3 years, and 10 percent are dead in 6 months.[32]

Clinical and surgical staging examinations and investigations

Carcinoma of the prostate has been traditionally investigated by the following examinations and investigations are used (Table I):

- Rectal examination of prostate
- Chest x-ray examination
- Flat plate of abdomen (KUB film: kidneys, ureters, and bladder x-ray film)
- Excretory urogram (IVP: intravenous pyelogram)
- Serum acid phosphatase-prostatic fraction (enzymatic or immunologic methodology)
- Serum alkaline prosphatase
- Liver function tests
- Metastatic bone survey
- Liver scan
- Prostatic biopsy (tissue histology)
- Radioisotope bone scan
- Bone marrow biopsy (cytology)
- Bone marrow aspiration for acid phosphatase (enzymatic or immunologic methodology)
- Pelvic lymphangiogram
- Pelvic lymphadenectomy
- CT Scan (computed tomography)
- Transrectal prostatic ultrasonography

TABLE I. Morbidity and Complications Associated with Pelvic Lymphadenectomy[34-36,104,105]

Condition	Percent	Reference No.
Pelvic lymphocele	13	105
Edema of the genitalia Edema of the lower extremities	17	34
Obturator nerve palsy (transient)	3	105
Thrombophlebitis	2	35
Wound infection	5 to 7	104
Wound dehiscence	0 to 5	104
Intestinal obstruction (partial)	0 to 7	104
Pulmonary embolus	2	36
Pneumonia	5 to 7	104
Pelvic hematoma	3	105
Urinary tract infection	5 to 7	104

The poor correlation between these investigations and the actual stage of the disease has recently been recognized. This is primarily due to the high incidence of lymph-node metastasis and/or bony metastasis which go undetected by these examinations and investigations.

Within this decade, the introduction of methodology to detect prostatic acid phosphatase, radioimmunoassay of prostatic acid phosphatase, counter immunoelectrophoresis of prostatic acid phosphatase, bone marrow biopsy (cytology), bone marrow acid phosphatase, radioisotope bone scanning, pelvic lymphangiography, CT scan, transrectal prostatic ultrasonography, and pelvic lymphadenectomy have permitted a more reliable staging of the tumor and a more realistic therapeutic approach.

In a recent study evaluating the staging impact of these newer modalities, with emphasis on radioisotope bone scanning and pelvic lymphadenectomy on final stage assignment, it was noted that only 95 percent of patients preliminarily thought to be Stage A-1, remained at their initial clinical staging. Similarly, only 53 percent of patients preliminarily diagnosed as Stage A-2, 54 percent of patients preliminarily determined as Stage B-1, 57 percent of patients preliminarily staged as Stage B-2, and 26 percent of patients preliminarily staged as Stage D-1 remained at their initial clinical staging after bone scanning and pelvic lymphadenectomy.

Since earlier recognition of metastasis with more accurate means of staging will allow a more appropriate and rational therapeutic plan, it is important for all physicians to be thoroughly familiar with the more recently introduced modalities for staging of prostatic carcinoma.

Serum acid phosphatase. In 1938, Gutman and Gutman[45] discovered that serum acid phosphatase activity was frequently elevated in patients with metastatic carcinoma of the prostate. However, this enzyme is also elevated in patients with osteosarcoma, carcinoma of the breast, Gaucher's disease, thromboembolic disease, and thrombocytopenia.[39,46] In 1953, the L-tartrate inhibition test was developed to measure the prostatic fraction of serum acid phosphatase.[47,48] Other substrates "specific" for prostatic acid phosphatase were discovered that led to development of current enzymatic methodologies for determination of prostatic acid phosphatase activity.[49] However, these methodologies are not specific for determining true prostatic acid phosphatase activity, for instance, acid phosphatase of prostatic origin.[50] In addition, transient elevations of the serum acid phosphatase levels occur after digital rectal examination, urethral instrumentation, transurethral resection of the prostate, and prostatic infarction.[51-54] These false-positive results and those due to the nonspecificity of current enzymatic methodologies may lead to over-staging of patients with early stages of prostatic carcinoma, thereby preventing them from receiving appropriate radical prostatectomy or radiation therapy. Recently two immunologic tests have been reported: a radioimmunoassay (RIA) for prostatic acid phosphatase and a counter immunoelectrophoretic assay (CIEP) for prostatic acid phosphatase.[55,56] These tests appear to be specific for human prostatic acid phosphatase and do not react with nonprostatic phosphatase present in the serum. It is believed that these immunoassays measure the increased release of acid phosphatase into the circulation, possibly due to increased cell permeability. Thus it appears that these tests can identify true prostatic acid phosphatase in the serum, bone marrow, or in metastatic deposits. Several studies have indicated that these tests have distinct biochemical and clinical advantages over the standard enzymatic methodologies.[55-60]

The radioimmunoassay of prostatic acid phosphatase was reported to be positive in 43 percent of cases of intracapsular prostatic carcinoma, Stages A and B, and 94 percent of cases of extracapsular prostatic carcinoma, Stages C and D.[57] The radioimmunoassay technique has demonstrated four to five times greater sensitivity, the probability that the test result will be positive, than the enzymatic methodologies in the presence of clinically intracapsular prostatic cancer, Stages A and B. In clinically advanced extracapsular tissue virulence, Stages C and D, the radioimmunoassay technique has proved to be twice as sensitive as the enzymatic methodologies. This test is available commercially.*

The counter immunoelectrophoretic technique has demonstrated high reproducibility and much greater sensitivity than conventional enzymatic methodologies for the detection of early stages of prostatic carcinoma. In the National Prostatic Cancer Project the counter immunoelectrophoretic technique demonstrated elevation of serum acid phosphatase in 38 percent of patients with Stage A disease, 35 percent of patients with Stage B disease, 49 percent of patients with Stage C disease, and 69 percent of patients with Stage D disease. In this study, conventional enzymatic methodologies demonstrated elevation of acid phosphatase in 12 percent of Stage A patients, 11 percent of Stage B patients, 17 percent of Stage C patients, and 51 percent of Stage D patients. This report concluded by recommending that the counter immunoelectrophoretic assay of serum acid phosphatase determination be used for initial clinical staging of patients with early stages of carcinoma of the prostate due to its high specificity, sensitivity, and reproducibility in preference to the radioimmunoassay technique or conventional enzymatic methodologies.[50] The counter immunoelectrophoretic assay is also available commercially.†

Recently there have been an increasing number of reports of "false" positive results reported with these immunologic techniques, that is, a positive assay in the absence of a definable focus of prostatic carcinoma. Nevertheless, it is hoped that these developments will open the door to extensive diagnosis of early Stage A and Stage B disease. However, Whitmore believes that the radioimmunoassay is a highly sensitive and reasonably specific method for detection of prostatic cancer, but he questions whether the test really detects localized disease or early metastatic cancer. He emphasizes that without utilizing newer methods of clinical and surgical staging identification, prostatic cancer appears many times to be an early localized lesion and proves to be metastatic after radioisotope bone scan or pelvic node dissection.[56]

Alkaline phosphatase. Alkaline phosphatase has been reported to be of value in evaluating patients with prostatic carcinoma, particularly those patients with bone metastasis. It is reported that as many as 89 percent of patients with bone metastasis from carcinoma of the prostate exhibit elevated serum alkaline phosphatase.[49,51-54] In the majority of patients, metastasis from carcinoma of the prostate to the bone is an osteoblastic process, and, therefore, serum alkaline phosphatase levels are elevated. However, this test is nonspecific, and elevations occur with hyperparathyroidism, Paget's disease, liver disease, and multiple fractures.

Metastatic bone survey. Osteoblastic metastases are present in approximately 80 percent of patients with bone metastases from carcinoma of the prostate; osteolytic metastases occur in approximately 5 percent of cases, while mixed osteoblastic and osteolytic metastases are present in approximately 10 percent of cases.[61] However, skeletal x-rays fail to diagnose metastasis in up to 40 percent of cases.[62] Metastases occur most frequently in the bony pelvis, lumbar vertebrae, and proximal femurs (Fig. 2).

Radioisotope bone scan. Recent developments

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* Metpath ($13.00) called the "Male Pap Test."

† Dianetics Medical Laboratories, Inc. ($15.00) called the "Prostatus-Screen for Prostatic Carcinoma."

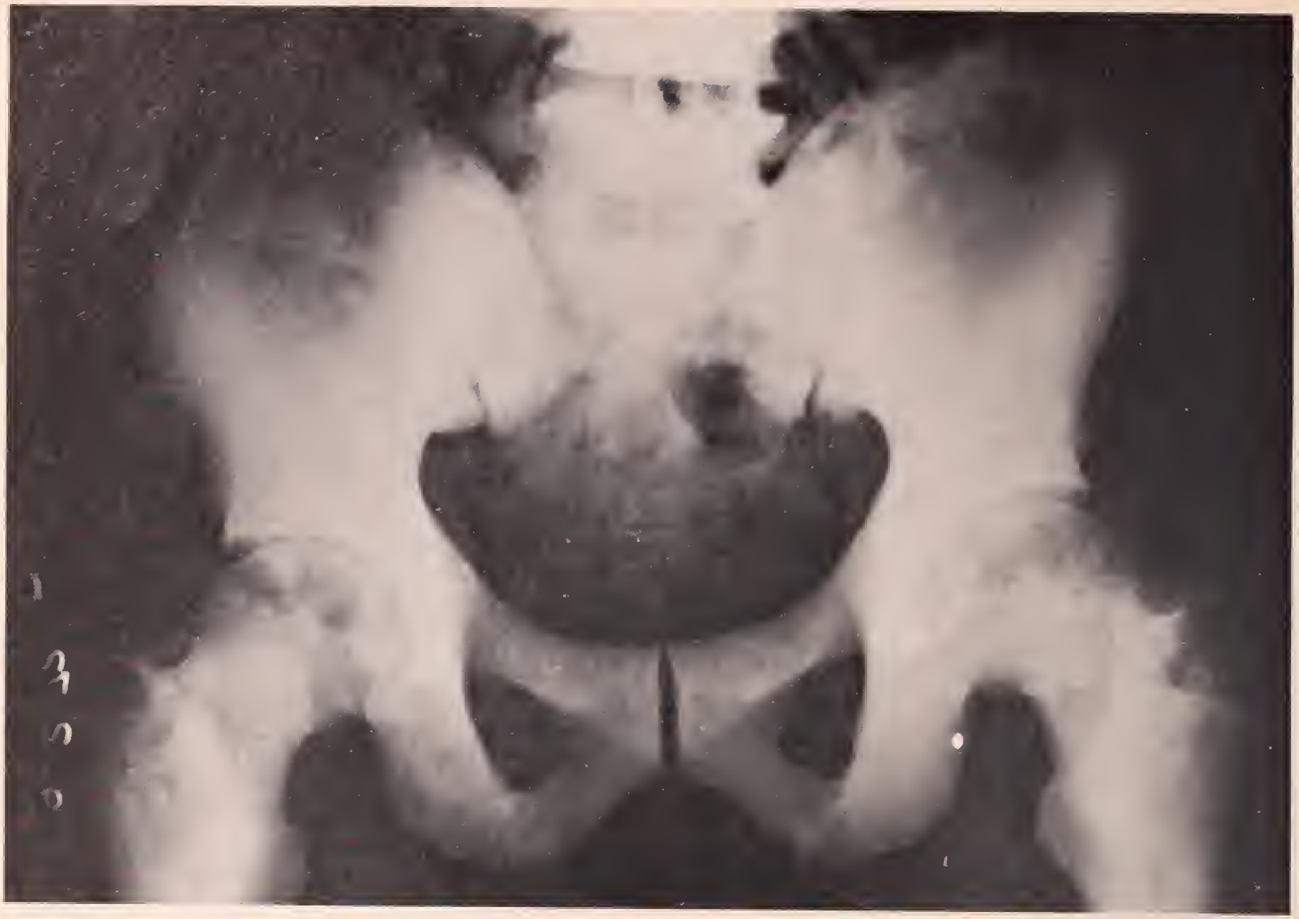


FIGURE 2. X-ray film of pelvis and hips. Extensive osteoblastic metastases involving both femurs, entire pelvis, and visualized lumbar spine.

in nuclear medicine have provided new and valuable means of detecting metastasis earlier than previously possible.[62–64]

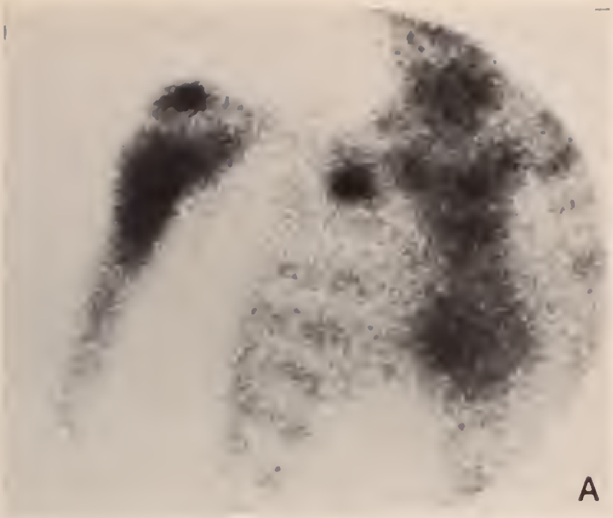
The radioisotope technetium-99mm diphosphonate offers advantages over previously used isotopes for bone scanning.[64]

There is compelling evidence to suggest that the radioisotope bone scan is significantly more sensitive than metastatic bone survey in detecting metastatic carcinoma.[65] However, because of the lack of specificity of the radioisotope bone scan, even with the newer technetium 99-labeled compounds, if the scan is positive, a metastatic bone survey is necessary to document bone metastasis. Because of its superior metastasis sensitivity, the scan should be performed before the metastatic bone survey.[16] The reported incidence of patients having positive bone scan and normal metastatic bone survey findings range between 12 and 50 percent.[62,65–69] An important fact is that fewer than 10 percent of patients with positive metastatic bone survey results have negative findings on bone scan.[11,65,67]

Because the radioisotope bone scan detects all metabolically active bone lesions, including Paget's disease, osteomyelitis, arthritis, and healing fractures and is less specific than the metastatic bone survey, on occasion, tomography and/or bone biopsy may be necessary to document or confirm the presence of bone metastases.[65] However, if these lesions have been excluded and an abnormal radioisotope bone scan result is present in a patient with carcinoma of the prostate, the scan is virtually diagnostic of metastatic prostatic carcinoma (Fig. 3).

Bone marrow acid phosphatase and bone marrow biopsy. Bone marrow acid phosphatase (BMAP) determination and bone marrow biopsy has recently been introduced as a method for improved staging and early diagnosis of bone metastases.[70–80]

It has been reported that in patients with clinically localized prostatic carcinoma, early bone metastasis was diagnosed by an increase in the acid phosphatase of the bone marrow before any elevation of serum acid phosphatase or radiographic evidence of metastasis became manifest. In certain of these cases, metastasis was confirmed by bone marrow biopsy. Furthermore, it has been noted that in 10 percent of patients with clinically localized disease, positive random bone marrow biopsies were the only evidence of metastasis even before the radioisotope bone scan finding became positive. Additionally, 60 percent of patients with advanced disease had positive random bone marrow biopsy. Veenema[29] recommends that the bone marrow acid phosphatase be obtained before employing radical treatment for apparently localized disease, because this investigation is a simple and safe procedure and perhaps the most sensitive test which can be done in conjunction with



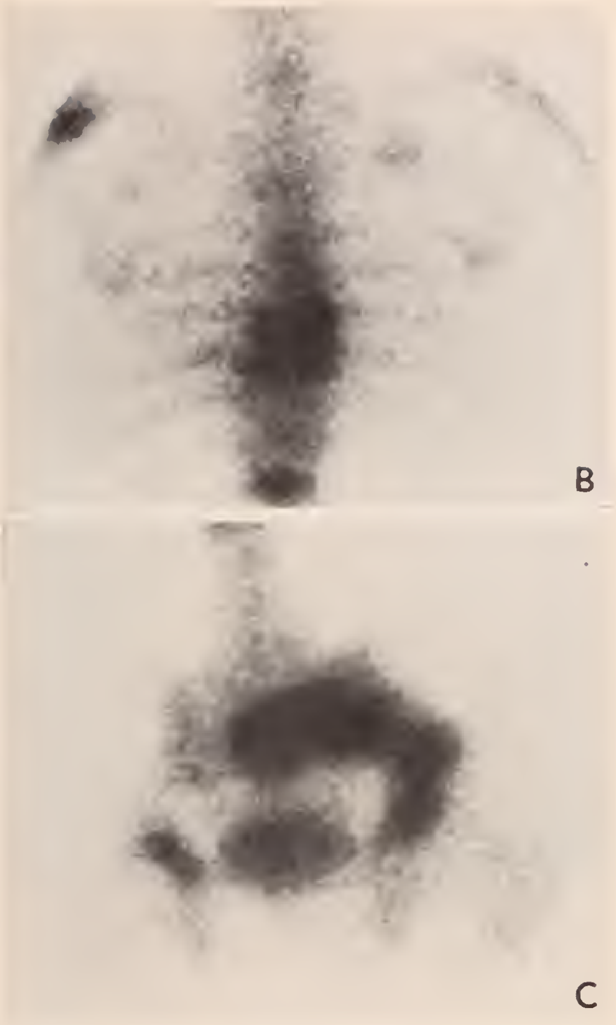


FIGURE 3. Radioisotope bone scan in carcinoma of the prostate. (A) Anterior view of right hemithorax and right shoulder revealing increased uptake of radioisotope in proximal shaft of right humerus and anterior first rib. (B) Posterior view of thoracic spine demonstrating increased uptake of radioisotope in T8, T9, and T12. (C) Posterior view of pelvis demonstrating increased uptake of radioisotope in sacrum and right ilium.

bone marrow biopsy and radioisotope bone scan. He also felt that it was a better index of early bone metastasis than serum acid phosphatase or routine metastatic bone survey. It appears that the radioisotope bone scan, metastatic bone survey, bone marrow biopsy, and bone marrow acid phosphatase are complementary investigations which together provide accurate information on the presence or absence of bone metastases. However, because of the high number of false-positive determinations reported,[49,58,79–81] controversy still surrounds the interpretation and clinical significance of the bone marrow acid phosphatase results. Belville and associates[81] recently reported that the radioimmunoassay of bone marrow acid phosphatase is an effective tool to measure carcinoma of the prostate metastasized to bone. It demonstrated superior specificity, in contrast to conventional enzymatic methodologies which showed limited reliability.[81] Additionally, in contradistinction to the high number of false-positive bone marrow acid phosphatase determinations when performed by conventional enzymatic methodologies, Murphy and associates recently reported no false-positive results when using the counter immunoelectrophoretic technique.[58] Furthermore, they stated that the "new immunoassay techniques, due to their high sensitivity in serum, may eliminate the need for bone marrow acid phosphatase assays in patients with advanced prostatic carcinoma".[50]

Pelvic lymphangiography. Bipedal pelvic lymphangiography to detect lymph node metastasis in patients with carcinoma of the prostate is receiving increasing application, particularly among radiation therapists, whose radiation portals may be influenced by the status of regional nodes (Fig. 4).[16,82–85] This investigation obtains its value from its demonstration of prostatic lymph node drainage that has been determined from prostatic lymphography (Fig. 5).[86]

It has been noted that pelvic lymph-node involvement may be the earliest manifestation of metastatic prostatic carcinoma, thereby emphasizing the potential value of lymphangiography prior to radical prostatectomy or radiation therapy.[34,36,41,87–90] It is generally believed that the metastatic tumors involve, first, the obturator and internal iliac lymph nodes and then the external iliac lymph nodes, common iliac lymph nodes, presacral and presciatic lymph nodes, and, finally, the para-aortic lymph nodes.[33,42,82,88,91–93]

Bipedal pelvic lymphangiography reveals the external iliac, common iliac, and para-aortic nodes, but the internal iliac, obturator, presacral, and presciatic nodes are not usually seen. Therefore, this investigation is controversial in terms of its usefulness to determine Stage D disease because the earliest involved lymph nodes are not consistently visualized. In addition, other objections to this investigation are as follows: (1) difficulty in distinguishing lymphangiographic abnormalities due to benign pro-

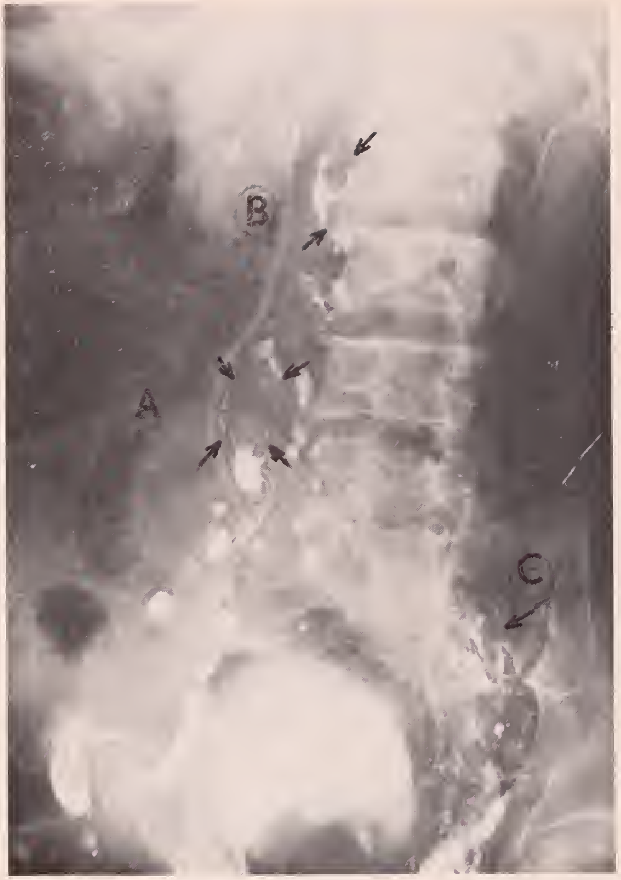


FIGURE 4. Pelvic lymphangiogram in carcinoma of the prostate. Oblique view of abdomen with excretory urogram. (A) Enlarged lymph nodes almost completely replaced with filling defects. (B) Several lymph nodes almost completely replaced with filling defects. (C) Obstructed lymph channels due to total involvement of lymph nodes.

cesses, for example: fibrosis, fat replacement, and hyperplasia, from metastatic tumor, and (2) a lack of sensitivity to detect microscopic foci, since such foci will not alter the architectural appearance of the lymph nodes.[81]

Accuracy in staging using bipedal pelvic lymphangiography can range from approximately 40 to 90 percent, varying from individual to individual and from institution to institution. There is an approximately 10 to 60 percent false-positive rate and approximately a 30 to 50 percent false-negative rate,[11,18,23,36,81] Perhaps, the main value of pelvic lymphangiography is to assess the completeness of removal of pelvic lymph nodes on postoperative x-rays after pelvic lymphadenectomy.

Computed tomography. It has recently been shown that CT scan can detect masses involving the prostate, seminal vesicles, periprostatic, and perivesical space. This investigation, therefore, by outlining asymmetry and distortion of the prostate, seminal vesicles, bladder, or rectum by compression, can be of assistance in providing an accurate measurement of the volume of prostate size, extent of prostate carcinoma, invasion of carcinoma through the capsule, and spread of tumor into the surround-

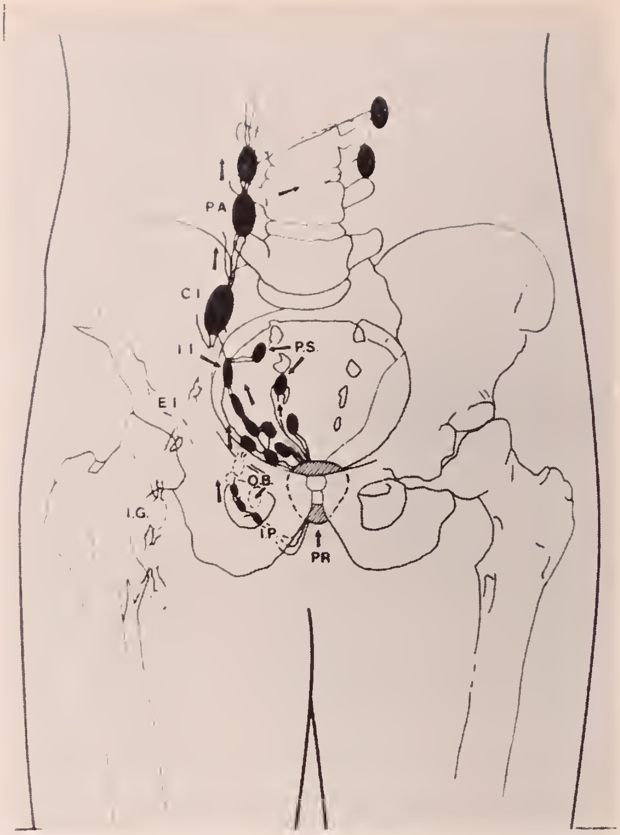


FIGURE 5. Prostatic lymphography.[86] Prostatic lymph node drainage visualized by prostatic lymphography: I.P., internal pudendal lymphatics; P.S., presacral lymph nodes; I.I., internal iliac lymph nodes; C.I., common iliac lymph nodes; P.A., para-aortic lymph nodes. The following lymph nodes are not visualized by prostatic lymphography: E.I., external iliac lymph nodes; O.B., obturator lymph node; I.G., inguinal lymph nodes.

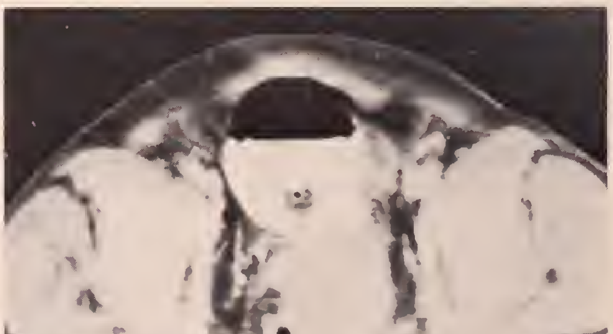


FIGURE 6. Computed tomography in carcinoma of prostate. Carcinoma of prostate extending into seminal vesicles, anteriorly on left with displacement of bladder to right, probable involvement of bladder wall, perivesical fat involvement, and extension to rectosigmoid. Left ureter encased by mass and displaced posteriorly.

ing tissue (Fig. 6). Thus, the CT scan can help to determine local tumor stage, and its local extension(s), Stage C, which is suggested by an asymmetry of the prostate into the bladder lumen or behind the bladder wall.[94]

Transrectal prostatic ultrasonography. Recently, Resnick and associates have described the use of transrectal ultrasonography as an adjunct in the evaluation of patients suspected of having carcinoma of the prostate.[95-97] They found the technique helpful in differentiating malignant from benign lesions, inasmuch as malignant lesions appear as a sonically focal dense mass, and useful as a noninvasive staging technique.

In comparison with transrectal ultrasonography, CT scan is more expensive and involves a higher radiation dose to the patient. The final place of these two investigations in the staging of carcinoma of the prostate remains to be established.

Surgical staging by pelvic lymphadenectomy

Because it is now clear that large numbers of patients have pelvic lymph-node metastasis when their disease appears clinically localized on the basis of rectal examination, metastatic bone survey, radioisotope bone scan, and prostate acid phosphatase assays, pelvic lymphadenectomy is becoming increasingly used for the surgical staging of this disease prior to institution of therapy.[17,24,34-37,82,87-89,98-100] A considerable number of patients with clinical Stage B tumors, between 7 to 45 percent, will have pelvic lymph-node metastasis revealed on staging pelvic lymphadenectomy, and a considerable number of patients with clinical Stage C tumors, between 33 to 85 percent, will have pelvic lymph-node metastasis revealed by staging pelvic lymphadenectomy, as described. The incidence of pelvic lymph-node metastasis varies directly with the size, grade, and stage of the tumor.[91] In patients with tumors of less than 35 Gm. the percent of positive pelvic nodes is 7 percent, while in patients with tumors in excess of 150 grams the percent of positive pelvic nodes is 92 percent.[101]

Staging pelvic lymphadenectomy reveals that about 90 percent of positive pelvic nodes are found in the obturator and iliac lymph nodes, approximately 55 percent are found in the external iliac lymph nodes, approximately 20 percent of patients have diffuse pelvic nodal involvement,[37] and almost 25 percent have micrometastasis alone which is arbitrarily defined as deposits less than 2 mm. in diameter.[34] Because many of these patients have involvement of the obturator nodes only, or minute involvement of the iliac nodes, such that bipedal lymphangiography alone would not detect the metastases, the improved accuracy of surgical staging by pelvic lymphadenectomy makes it possible to spare some patients radical prostatectomy, and allows urologists and radiation therapists to know whether local irradiation of an apparent clinical Stage B or apparent clinical Stage C lesion has a reasonable chance of encompassing all of the actual disease. The lack of this method of staging in the past, prior to radical prostatectomy or radiation therapy, undoubtedly accounts for some of the therapeutic failures of these treatment modalities due to unrecognized lymph node metastasis at the time therapy was instituted. Thus, one might have expected that the local treatment of at least 7 percent of Stage B and 33 percent of Stage C patients would be doomed to failure on the basis of pre-existing pelvic lymph node metastases, as already described. It now appears that it is inappropriate to consider a patient well staged without surgical exploration of the pelvic lymph nodes.[34] It should be emphasized that isolated nodal biopsies, so-called "berry-picking," is totally unsatisfactory for staging purposes unless multiple grossly palpable nodes are present and positive on frozen section biopsy, at which time surgery is discontinued. Additionally, it should be stressed that pelvic lymphadenectomy is primarily a staging procedure and has not yet been shown to increase patient survival.[92] In some protocols, if pelvic lymph-node metastases are documented on frozen section, or on permanent pathologic examination, prostatectomy or ^{125}I interstitial implantation in the prostate is not performed, the patient is referred for external radiation therapy, or receives no further treatment.[18,34] However, others have performed pelvic lymphadenectomy as a therapeutic adjunct to radical prostatectomy[90,99,102,103] or ^{125}I interstitial implantation into the prostate without getting frozen section biopsies, noting that patients in whom the volume of metastatic tumor in pelvic lymph nodes is 3 cc. or less have a five-year survival following pelvic lymphadenectomy and ^{125}I interstitial implantation similar to those patients with comparable stage tumors but with negative pelvic lymph nodes.[90] Conversely, patients having positive lymph nodes with a volume greater than 3 cc. have an approximate 85 percent probability of developing metastases within five years.[90]

At present, pelvic lymphadenectomy is usually performed via an extraperitoneal approach in patients considered candidates for either definitive radiation therapy, external or interstitial ^{125}I, or radical prostatectomy with Stage A-2, Stage B, and Stage C carcinoma of the prostate. Morbidity can be significant but is generally less than 10 percent, and complications are not prohibitive (Table I).[34-36,104,105]

Conclusion

The failure to accurately determine extent of local or distant extension and/or metastases by relying on metastatic bone survey and serum acid phosphatase determinations alone adversely influences the impact of selected local treatment modalities such as external or interstitial radiation therapy and radical prostatectomy. Earlier recognition of metastases with more accurate means of staging, using radioisotope bone scanning, counter immunoelectrophoretic bone marrow acid phosphatase determinations, pelvic lymphadenectomy, and, perhaps in the future, computed tomography and transrectal prostatic ultrasonography, will allow a more appropriate and rational therapeutic plan.

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DES Story

Review and report

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This report summarizes the results of a retrospective analysis of the clinicopathologic findings in 217 patients believed to have been exposed in utero to DES (diethylstilbestrol). Mean and median age of patients was 21.4 and 21 years respectively. The oldest patient was 32 years old. Histologically proved vaginal adenosis was observed in 14 percent of the cases. Even though 62 patients were originally diagnosed as having intraepithelial neoplasia, in a careful review only 25 cases were acceptable as genuine dysplasia, and the rest were considered to represent squamous metaplasia. Seven patients had hysterosalpingograms and three had hypoplastic uteri. Pathogenesis and pathology of DES-related changes as well as management of DES-exposed offspring is discussed.

The ever-expanding literature of the recent past dealing with potential transplacental effects of DES (diethylstilbestrol) in female and male offspring has answered some questions, and raised many more that are of interest and concern not only to the medical profession but also to the consumer advocate. In this report, we present our experience with DES-exposed daughters and a review of the DES story.

Historical notes

Vaginal adenosis was first noted by Von Preuschen in 1877. As early as 1940, Plaut et al.[1] suggested that this lesion might have a premalignant potential and could be a forerunner of vaginal adenocarcinoma. Both these conditions were rarely encountered, and it is said that until 1967 only 68 cases of vaginal adenosis and 9 cases of primary adenocarcinoma of the vagina were reported.[2]

In 1938, British researchers, Dodds et al.[3] synthesized a potent artificial nonsteroidal estrogenic preparation called diethylstilbestrol (4:4′-dihydroxy-alpha:beta-diethylstilbene). In 1946, Smith et al.[4] recommended the use of DES in high-risk pregnancies. Even though placebo-controlled studies of Dieckmann and associates in 1953[5] failed to prove the effectiveness of DES in reducing the incidence of abortion, prematurity, postmaturity, toxemia, and perinatal mortality, its use continued for many years. An estimated 0.5 to 3 million women received DES in the decade from 1945 to 1955. Heinonen[6] calculated that between 1960 and 1970, the number of live-born, DES-exposed female offspring in the United States decreased to 10,000 to 16,000 per year. In 1966, the first reported case of clear-cell adenocarcinoma of the vagina at the age of 15 was encountered by H. Ulfelder, and within the ensuing three years, six more cases were diagnosed. Subsequent investigation by Herbst et al.[7] disclosed an association between these cancers and early in utero DES exposure; other researchers soon confirmed their striking findings.

These events led to the establishment of a registry on hormonal transplacental carcinogenesis. Thus far, more than 400 such vaginal cancers have been accessioned. In November, 1971, the FDA (Food and Drug Administration) ordered the manufacturers to include a warning in the labeling of DES and other estrogenic substances and banned their use during pregnancy. In July, 1974, the National Cancer Institute commissioned the DESAD (DES Adenosis Project). Researchers have provided valuable information regarding the incidence of breast cancer in DES mothers[8] and upper-genital-tract changes in DES daughters.[9] The occurrence of incompetent cervix,[10] vaginal and cervical squamous intraepithelial neoplasia,[11–14] as well as genital and semen anomalies in male DES progeny[15] remain the subject of continued fruitful investigation.

Materials and methods

An analysis of the clinicopathologic findings in 217 patients believed to have been exposed in utero to DES is the subject of this report. Patient histories and physical findings, reports of gross and colposcopic examinations, and cytologic and pathologic diagnoses were recorded. Our pathology slides were reviewed by both a gynecologist and a pathologist. An attempt was made to determine the incidence of cervicovaginal intraepithelial neoplasia.

Results

History. Of 182 patients with a history of in utero

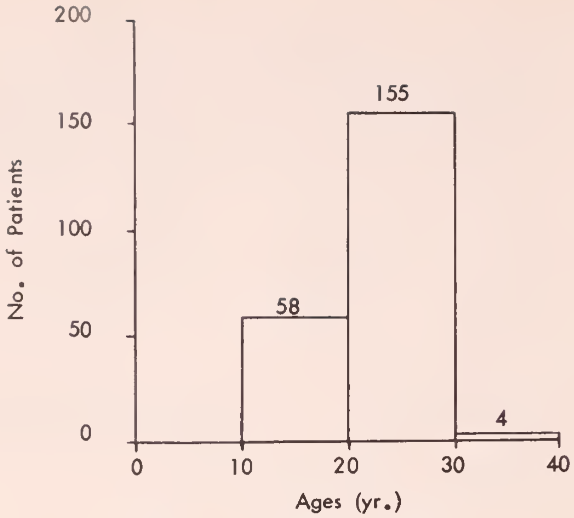

FIGURE 1. Age range of patients.

drug exposure, DES was believed to have been the agent in 180 cases. In 35 instances, maternal drug intake was suspected but not documented.

Age distribution. Age distribution of the patients in our study indicates the majority of patients (155) to be between the ages of 20 and 29 (Fig. 1). Only four patients were over age 30 at the time of first examination, and the youngest patient was 11 years. The mean age was 21.4 and the median 21 years.

Gross findings. No gross abnormality was noted in 27 cases (12.4 percent), and the only abnormal finding in an additional 64 patients (29 percent) was cervical erythroplakia (clinical erosion). We did observe further changes which consisted of: 44 cases (20 percent) of cervicovaginal hood; 18 cases (8.2 percent) of adenosis; 26 cases (12 percent) of hood and cockscomb; 8 cases (3.6 percent) of hood and adenosis; 29 cases (13 percent) of cockscomb with or without adenosis; and 1 case of adenosis and pseudopolyp.

Cytology. Class I Papanicolaou smear findings were reported in 172 patients, Class II in 42 patients, and Class III in 3 patients.

Pathologic findings. The presence of vaginal adenosis with or without squamous metaplasia was histologically confirmed in 30 cases (14 percent). Thirty-eight patients with Class I, 21 with Class II, and 3 with Class III Pap smears were originally diagnosed as having intraepithelial neoplasia. Basal-cell hyperplasia was reported in 3 patients with Class I and 1 patient with Class II Pap smear findings. Koilocytotic atypia was observed in two cases, both with negative (Class I) cytology. In a subsequent review by a pathologist and a gynecologist, only 25 cases were acceptable to the reviewers as genuine dysplasia (15 mild, 2 moderate, and 8 severe dysplasia). The remainder were considered to represent squamous metaplasia with or without atypia.

Hysterosalpingogram. Seven patients had hysterosalpingograms, and three were reported as having a hypoplastic (infantile) uterus. One of these had a bicornuate appearance.

Comment

Pathogenesis and pathology. Gross and microscopic vaginocervical changes have been observed in DES-exposed daughters with variable frequency. These have been described in detail by Sandberg.[16] Most commonly observed cervical changes are erythroplakia, complete or incomplete hoods with or without cockscomb appearance, and pseudopolyp. Observed vaginal anomalies consist of mucosal elevations, apical narrowing, forniceal obliteration, and adenosis. These changes appear to be primarily related to a displacement of the squamocolumnar junction and abnormal growth of the connective tissue component of the cervix and vagina. Gross structural abnormalities of the cervix, other than erythroplakia, and vagina were noted in 126 (58 percent) of our patients, and similar findings have been reported in 22 to 58 percent of reported cases. Histologically proved vaginal adenosis was noted in 14 percent of our cases and has been observed in 14 to 91 percent of the reported series. The prevalence has been consistently higher when drug exposure took place during the first trimester; that is, 82 percent in Mattingly and Stafl's patients[12]; 85 percent in Johnson et al.[17] autopsy series; and 73 percent among patients studied by Herbst et al.[18] Johnson and her associates further noted that the prevalence of adenosis may be dose dependent.

In the unexposed population, vaginal adenosis has been observed in up to 4 percent of women, 14 percent of children, and 15 percent of autopsied fetuses and neonates.

Displacement of the squamocolumnar junction to the vagina (in 82 percent of the cases), and to the portio vaginalis of the cervix (18 percent) was reported by Mattingly and Stafl[12] among the DES-exposed daughters. Similar observations have been made by Johnson et al.[17]; 95 percent of their 43 autopsied stillborns and neonates with a history of in utero DES exposure had displaced squamocolumnar junctions. It is of interest to note that the same investigators observed the squamocolumnar junction to be at or above the external cervical os in all 10 cases exposed to progesterone, and it appeared displaced to some degree even with exposure to nonsteroidal estrogens. These observations led them to believe that progesterone promotes the development of mature glycogenated squamous epithelium lining the vagina and cervix up to the external os, whereas the DES and steroidal estrogens appear to prevent it. The precise pathogenesis of vaginal-cervical changes, however, remains the subject of speculation and is as controversial as the embryogenesis of the vagina.

Embryologically, most authors believe that the vagina is developed from the proliferation of cells at the point of junction between the müllerian duct and urogenital sinus. The primitive vagina is first lined by columnar epithelium, which is later replaced by squamous epithelium. The direct effects of estrogens on the stroma, or their inhibiting effects on columnar epithelium (as suggested by Forsberg[19] based on his experiments in mice and supported by clinical observations), explain the deficiencies or overgrowth of the connective tissue or persistence of columnar epithelium in the vagina, and the displacement of the squamocolumnar junctions. The question arises as to why not all DES- or steroidal estrogen-exposed offspring have displayed similar findings. Metzler's[20] studies of biotransformation of DES in man, rat, and hamster demonstrated the production of species-dependent reactive metabolites and pointed out the importance of metabolic pathways and their potential effects on the development of the müllerian ducts and their anomalies. These may account for some observed variations independent of the dose and the timing of the exposure. Once the changes have taken place, ovarian hormones may play a role in their progression, as proposed by Forsberg[19] and supported by clinical data.

Vaginal adenosis could be of occult, surface, and cystic variety or a combination. It is most common in the upper third of the vagina and in the anterior and posterior fornices.

Microglandular hyperplasia and arias stella pregnancy-related reaction may occur in preexisting adenosis and must not be mistaken for adenocarcinoma. Cervical and vaginal squamous intraepithelial neoplasia has been reported with variable frequency. Limited information is available regarding uterine and tubal anomalies, as well as the incidence of functional uterine bleeding associated with in utero DES exposure.

Vaginal and cervical adenocarcinomas have been observed in DES-exposed daughters with an approximate ratio of 7:3. Vaginal lesions have been most commonly located in the upper anterior wall, and cervical adenocarcinomas have been predominantly ectocervical. The three most common patterns of adenocarcinoma are tubulocystic, solid, and papillary. The three cell types frequently observed are clear cell, hobnail, and endometrioid. Even though mesonephric origin of clear-cell adenocarcinoma was proposed by Schiller years ago, Scully et al.[21] among others provided evidence favoring the müllerian nature of these lesions. The theoretical existence of a relationship between ovarian hormones and the development of these cancers has been suggested by Forsberg[19] and others. However, this question remains unsettled.

Examination, screening and follow-up of DES-exposed individuals

The examination should begin at the age of 14 years; earlier if the patient is symptomatic or menstruating. Careful inspection and palpation of the vulva and vagina should be followed by speculum examination. Grossly, adenosis may appear red and granular, but if there is squamous metaplasia, distinction from mature squamous epithelium may not be possible. The value of cytology must not be underestimated. Accuracy rates of cytologic screening have varied between a low of 20 percent and, depending on the screening technique, a high of 88.1 percent. Separate cervical and vaginal specimens should be taken, and the endocervix and upper and lower vagina must be sampled. The cytotechnologist must be made aware of the clinical diagnosis. One must remember that cytologic findings may vary with age, and in older patients more metaplasia and fewer columnar cells are found. Staining, using one-half strength Lugol's solution, will identify glycogen-poor areas, which could represent columnar or squamous metaplastic epithelium, or even squamous or adenocarcinoma. Colposcopic evaluation is mandatory in individuals with abnormal Pap smear findings but could be considered optional in other instances. All indurated, cystic, and discolored (reddish) lesions, as well as areas of highly abnormal colposcopic patterns should be biopsied. Patients with negative Pap smear results and findings consistent with a history of DES exposure should be reexamined every six months. Inspection, palpation, and cytology with or without iodine staining are the most important steps in these following visits. The value of colposcopy in the diagnosis of vaginal clear-cell adenocarcinoma has not yet been established. Predictability of histologic findings at colposcopy has been variable, and to the less-experienced colposcopists at first findings could be confusing. Cellular changes in adenosis have been studied by Vooijs, Ng, and Wentz,[22] Hart et al.,[23] and Robboy and associates.[24] A variety of changes have been identified, such as columnar cells (occasionally reactive or hyperplastic), metaplastic cells (with or without mucin, mature or immature), dysplastic cells, as well as anucleate squames.

Caution must be exercised in interpretating epithelial changes in DES-exposed daughters related to typical and/or atypical squamous metaplasias. Our own experience leads us to believe that not infrequently these are mistaken for dysplasia.

The nuclear DNA contents of these lesions have been studied using microspectrophotometric techniques or direct chromosomal analysis. In patients with vaginal adenosis, nuclear DNA content of mature metaplastic cells is similar to columnar and intermediate squamous cell and appears to be slightly higher in immature squamous metaplasia.

Polyploidy has been observed in association with atypical squamous metaplasia, and aneuploidy has been noted with dysplasias.

Cancer risk in DES-exposed individuals

The registry on transplacental hormonal carcinogenesis now has accessioned over 400 cases of clear-cell vaginal and cervical adenocarcinomas. The estimated risk has varied between 0.4 to 1.4 per 1,000 DES-exposed individuals. In approximately two thirds of the cases, exposure to DES or a chemically related compound has been documented. Analysis of the age incidence has shown a peak at age 19. Meticulous examination of the entire vagina and cervix is the single most important factor in early detection of vaginal and cervical clear-cell carcinoma. Identification of elevated serum cathepsin B activity in patients with these tumors offers the promise of earlier detection of these lesions and their recurrences. The stage of the disease and tumor histology appear to be of prognostic significance. The tubulocystic pattern often seen in older patients seems to have a more favorable outcome. A higher five-year survival rate among oral contraceptive users seems to be related to a generally superior medical surveillance and earlier detection of these lesions rather than to the effect of birth control pills per se (73 percent of cases among oral contraceptive users belonged to Stage I; 35 percent of nonusers).

Both radical surgery and radiotherapy have been used with almost equal effectiveness and fairly good results in the early stages of the disease. Chemotherapy with alkylating agents, antimetabolites, and antibiotics, alone or in combination as well as progestin therapy have been tried in recurrent and/or metastatic disease not amenable to curative surgical or radiation therapy. Some partial responses have been observed with the use of chemotherapeutic agents, particularly in combination with radiotherapy.

Even though some investigators had reported a higher incidence of cervicovaginal intraepithelial neoplasia in DES-exposed individuals, as happened in our small series, subsequent careful analysis of record review cases in DESAD projects revealed only 14 cases of mild-to-moderate dysplasia among 1,275 cases, a rate not appreciably higher than that expected in the unexposed population. A higher incidence of upper-genital-tract anomalies among the DES daughters has been reported by some authors. Reports on the incidence of incompetent cervix, premature birth, and ectopic pregnancy deserve future further investigations.

Conclusion

Our retrospective analysis of the clinicopathologic findings in 217 patients reaffirms the contention that typical and atypical squamous metaplasia in DES-exposed daughters could be mistaken for dysplasia.

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Electrocardiograms of the Month

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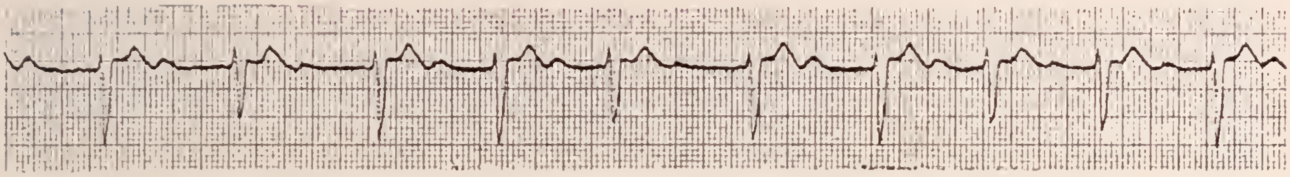
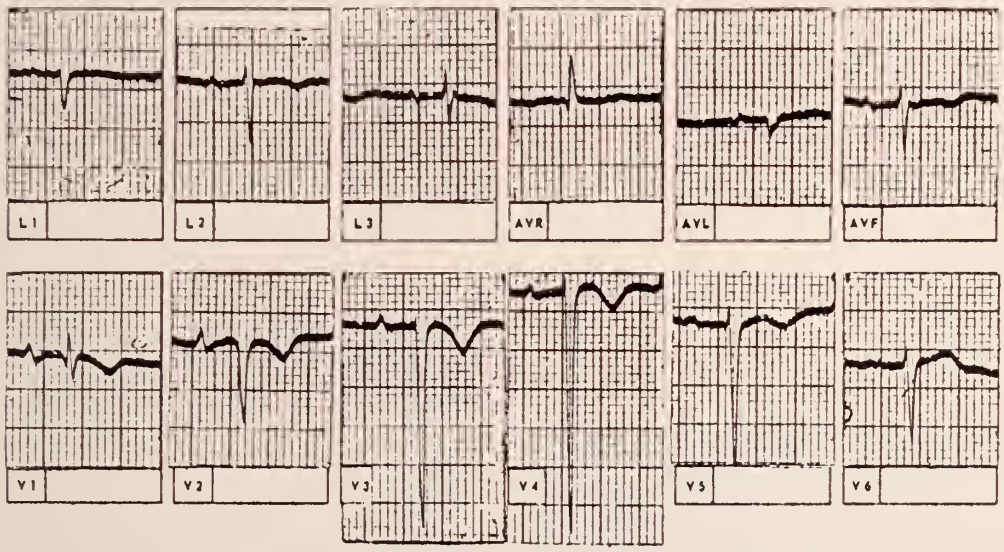


QUESTION 309. Lead V_1. What is the rhythm? The patient is receiving digoxin.



QUESTION 310. The patient is a 46-year-old female with rheumatic heart disease. What is the interpretation of the electrocardiogram?

Electrocardiograms of the Month

ELUCIDATION

Question 309. The rhythm is irregular with slight variation of the QRS configuration. There is a small positive wave after the T wave which resembles a P wave. However, the interval from the onset of this wave to the following QRS varies. The interval from the preceding QRS to the onset of this wave is fixed. The wave is a prominent U wave often seen in the electrocardiogram of patients receiving digitalis. The basic rhythm is atrial fibrillation based on the absence of P waves and the irregular ventricular rate.

Prominent U waves may also occur in patients receiving quinidine and in patients with hypokalemia. Less prominent U waves are often seen in the electrocardiograms of normal individuals.

Question 310. The rhythm is sinus. The P waves are biphasic in V_1 and V_2. The P-R interval is 0.21 second. In the frontal plane there is marked right axis deviation (+210). A QRS pattern is present in V_1. The R wave is small to V_6 and there is a deep S wave in all precordial leads. The T wave is symmetrically inverted in V_1 to V_4.

The marked right-axis deviation and QR pattern in V_1 are diagnostic of an enlarged right ventricle. The poor R wave progression and T wave inversion in the precordial leads are often seen in patients with right ventricular hypertrophy; however, they may also indicate myocardial ischemia. The deep S waves may indicate enlargement of the left ventricle.

Fishermen face health hazard of fatal fumes

Commercial fishermen are largely unaware of a fatal health hazard of their trade—asphyxiation from gases that form in the storage holds of the fishing boats.

In a report in the November 14 Journal of the American Medical Association, researchers describe 11 incidents involving 32 deaths among commercial fishermen during an eight-year period in the 1970s. And they are confident that many deaths have gone unreported.

It is likely that many of those reported lost at sea were overcome by gases prior to the boat's being swamped, says Roger I. Glass, M.D., of Atlanta.

The gases are formed by improperly refrigerated shrimp or fish that have been stored for more than a week while the vessel is at sea on a fishing trip, Dr. Glass says. The ship's hold may contain dangerous concentrations of carbon dioxide, ammonia, hydrogen sulfide or carbon monoxide. And the oxygen level will be quite low.

An investigation was launched following an episode in July, 1978, off the Louisiana coast. Two crewmen of a shrimp boat died and the captain was seriously ill. The unventilated hold of the ship contained 5,000 pounds of shrimp, caught in the previous 11 days at sea.

The first crewman descended into the hold to pack freshly caught shrimp on ice. He collapsed. The captain went down to rescue the man, and himself was stricken. The second crewmen followed the first two. The captain regained consciousness long enough to climb out of the hold and radio the Coast Guard for help.

Observers who went aboard the boat noted strong odors of ammonia, sulfur dioxide, and hydrogen sulphide, consistent with some shrimp decay, Dr. Glass reports. However, the shrimp tested out as still sufficiently fresh to be eaten without danger.

The episodes occur more often in warm climates during the summer months, the study reveals.

Fishermen should purge the air in an unventilated hold before it is entered, and crews should be trained in proper rescue procedures, he suggests. Respirators should be available to rescuers, so they can enter the hold and bring out the unconscious victim without succumbing themselves.

The study was conducted by the Center for Disease Control, Atlanta, the U.S. Coast Guard, and the National Institute of Occupational Health and Safety. Dr. Glass is currently on assignment at the Cholera Research Laboratory, Dacca, Bangladesh.

Correlation
Conferences in
Radiology
and Pathology

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Fever, Flank Pain, and Unilateral Renal Enlargement

Case history

Theodore Perl, M.D.[*]: This 22-year-old white male was in good health until approximately three weeks prior to admission when he noted the gradual onset of sharp, intermittent right-flank pain radiating to the abdomen and right testicle. Following incision and drainage of a subcutaneous abscess several weeks prior to admission, the patient took a short course of oral penicillin which he discontinued before completing the prescription. Three days prior to admission, he developed shaking chills and fever.

On physical examination, he appeared to be a moderately ill man with a temperature of 103°F. Positive physical findings included right costovertebral angle tenderness with guarding and tenderness to deep palpation in the right upper quadrant. Rectal examination showed prostatic tenderness.

The diagnostic work-up included an abdominal radiograph (Fig. 1A), intravenous pyelogram (Fig. 1B), posteroanterior and lateral chest radiographs (Fig. 1C), renal sonogram (Fig. 1D), and abdominal CT (computed tomography) scan (Fig. 1E).

Robert P. Boudreau, M.D.[†]: This patient's signs and symptoms directed our attention to the abdomen, particularly to the urinary tract. The clinical presentation was consistent with a urinary calculus, as well as either renal infection or renal infarction.

A plain film of the abdomen showed no evidence of organomegaly or opaque calculus (Fig. 1A). The gas pattern was normal. Retroperitoneal structures were poorly outlined, especially on the right side, and the lateral margin of the right kidney could not be visualized. This supported the possibility of a pathologic process involving the right kidney.

An intravenous pyelogram with nephrotomography showed prompt renal function bilaterally (Fig. 1B). The right kidney appeared larger than the left;

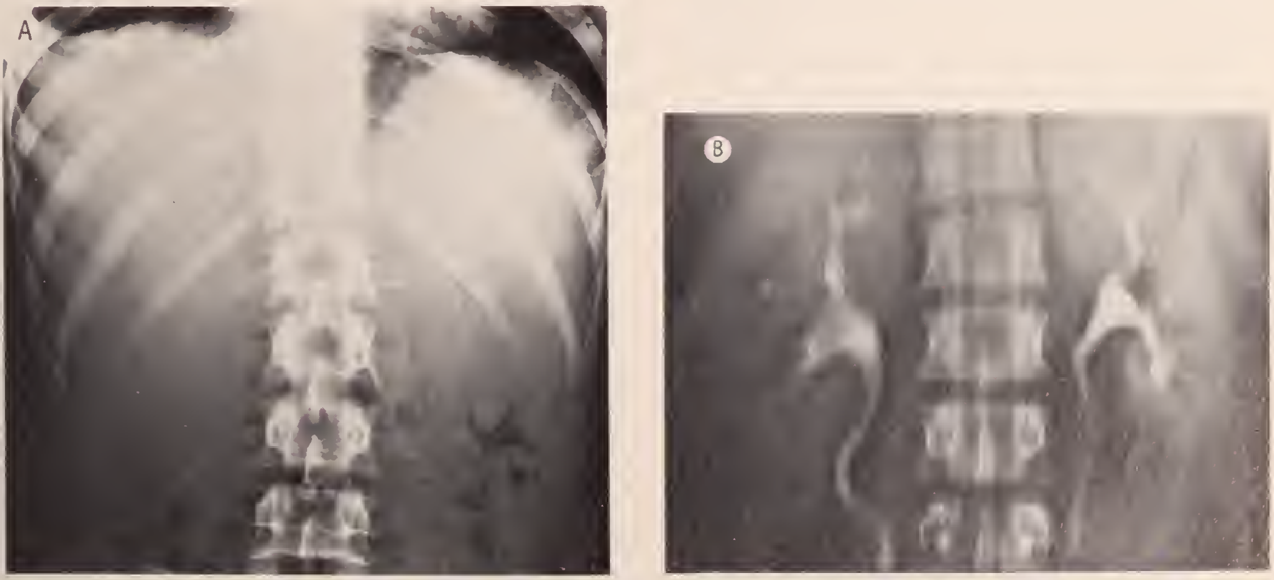

FIGURE 1. (A) Plain radiograph of the upper abdomen shows enlarged right renal shadow with poorly defined upper pole. Small pleural effusion seen at right lung base. (B) Intravenous pyelogram with nephrotomograms show enlarged right kidney. Calyces compressed and spread apart. Renal margin, particularly of upper pole, ill-defined.

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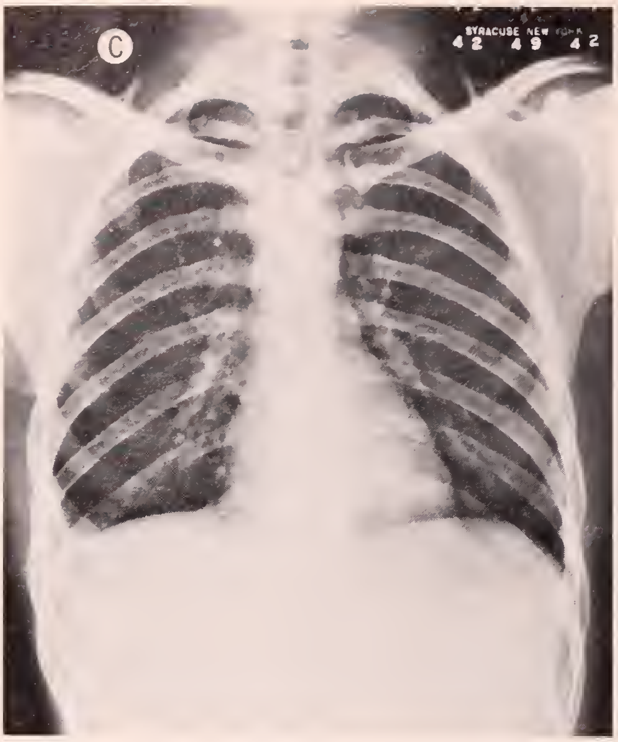
[†] Clinical Assistant Professor, Department of Radiology.



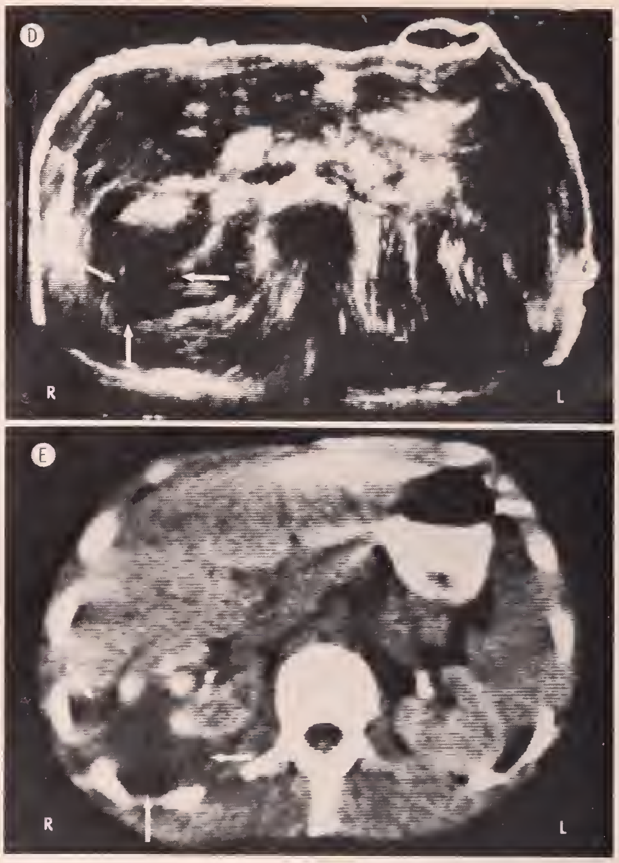


FIGURE 1. (C) Chest radiograph shows right pleural effusion. (D) Ultrasonogram, transverse through the kidney, shows sonolucent defect (arrows) in posterior aspect of right kidney and in posterior perirenal space. (E) CT scan shows defect in posterolateral aspect of right kidney with large extrarenal collection (arrows) posteriorly and laterally.

the lateral margin of the right kidney could not be seen. The upper and middle infundibula of the right pelvocalyceal system were stretched, attenuated with isolation of the middle calix, and the entire pelvocalyceal system was shifted medially to a mild degree. The left upper urinary tract and bladder were normal.

A chest radiograph taken one week later showed an extensive right pleural effusion (Fig. 1C).

A renal sonogram had a relatively echo-free area posterolateral to the right kidney indicating perinephric fluid (Fig. 1D). There was, in addition, an echo-free defect in the right kidney which communicated with the perinephric collection. CT scan at the level of the right kidney confirmed a posterolateral perinephric collection (Fig. 1E). Its density was about 30 HU which suggested fluid with a high protein content. There was a sharply demarcated defect in the posterolateral portion of the right kidney communicating with the perinephric collection (Fig. 1E).

The findings on the intravenous pyelogram, renal sonogram, and CT scan were consistent with a pathologic process such as hemorrhage or abscess arising in the right kidney and extending into the perirenal tissues (Fig. 1). The clinical history is most consistent with a right renal abscess that has broken through the renal capsule laterally and superiorly into the perinephric space and caused an associated perirenal abscess.

Dr. Boudreau's diagnosis

Intra- and perirenal abscess on the right side

Dr. Perl: The patient was treated surgically. At time of laparotomy, incision and drainage of a right perinephric abscess was performed.

Pathologic discussion

Chaidong Cho, M.D.*: Gram stain of the aspirated pus demonstrated gram-positive cocci. Culture grew *Staphylococcus aureus.* Perirenal abscess is formed between the renal capsule and perirenal (Gerota's) fascia. In most cases, a pyogenic lesion occurs in the renal parenchyma before the perirenal space is involved. The secondary involvement of the perirenal space may occur by direct rupture of the renal abscess or may follow the veins and lymphatics between the kidney and the perirenal space.[1]

The predominance of hematogenous spread and subsequent staphylococcal abscesses in the reported series of the preantibiotic era is noteworthy.[1,2] The more common distant suppurative foci were infected skin lesions, abscessed teeth, and respiratory lesions.[1] In a more recent series, however, gram-negative bacteria were the predominant organisms, *Proteus* species alone comprising approximately one third of the recovered organisms.[3,4] In contrast, *S. aureus* was seen less commonly, approximately one half as often as *Proteus* species.

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* Assistant Professor, Department of Pathology.

A rather typical clinical course and the lack of preexisting renal disease strongly suggest hematogenous bacteremia and secondary abscess formation.

Clinical discussion

Dr. Perl: This case illustrates the use of different imaging modalities in the diagnosis of renal and perirenal abscess. The abdominal plain film showed evidence of enlargement of the right kidney with lack of definition of the renal margin (Fig. 1A). Sonography demonstrated an intrarenal defect which extended into the posterior perirenal space (Fig. 1D). These findings were confirmed by the CT scan (Fig. 1E).

In the diagnosis of localized renal infection or perirenal abscess, an intravenous pyelogram may show calyceal distortion and localized caliectasis. In addition, decreased renal function may be seen. Perirenal extension may cause obliteration of the renal outline.

The ultrasound examination may reveal an echo-free area with a well-defined posterior wall and echoes simulating a renal cyst.[5] Unlike a cyst, however, the debris within an abscess cavity attenuates the ultrasound beam causing a complex echo pattern resembling a solid tumor.

Sonography is a particularly valuable imaging modality for assessing perinephric collections. In addition to the transverse plane, ultrasound allows visualization in parasagittal or oblique planes. Overlying gas may present a problem in imaging abdominal organs by masking underlying lesions. For this reason, the ultrasound transducer is posteriorly positioned in renal imaging.

In the obese patient, CT scanning may provide images superior to those of ultrasound in demonstrating both intrarenal and perirenal lesions.[6,7] Both ultrasound and CT are useful tools in guiding percutaneous needle insertion at the time of needle biopsy or cyst aspiration.

Neither, however, provides any indication of renal function. This can best be determined from the intravenous pyelogram or from nuclear medicine studies.

Final diagnosis

Intra- and perirenal abscess

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Drug Information*

Questions and Answers

Is there a significant drug-drug interaction between valproic acid and phenytoin?

Official literature for valproic acid (Depakene) states that there is conflicting evidence regarding an interaction with phenytoin (Dilantin), and that it is unknown if this results in a change in free phenytoin serum concentrations.[1]

Monks et al.[2] reported that phenytoin was displaced in vitro from serum albumin-binding sites by therapeutic range concentrations of valproic acid. Displacement of phenytoin appeared to increase proportionately with increased concentrations of valproic acid.

Vakil and co-workers[3] reported initial reduction of plasma phenytoin levels in patients taking valproic acid in low doses. Monks and Richens[4] described effects of single doses of sodium valproate on serum phenytoin levels and protein binding in six epileptic men. No significant clinical changes occurred. Total serum phenytoin levels fell owing to reduced bound drug, but free (active) serum phenytoin rose slightly.

In conclusion, in vitro and in vivo studies suggested that phenytoin was displaced by valproic acid from albumin binding sites.[2,4] This appeared not to be of clinical significance. It appears that although total serum phenytoin levels may be reduced, the free serum levels are not, and therefore the dose of phenytoin should not be increased.

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Do you have any information concerning Orgotein, a drug with superoxide dismutase activity?

Orgotein (Palosein) is a water-soluble protein derived from various mammalian tissues, and is a veterinary product administered by injection which produces a pronounced anti-inflammatory action. It appears to exert its effectiveness by (1) a different mechanism of action than other anti-inflammatory drugs, and (2) partially as a result of pronounced superoxide dismutase activity.[1] Superoxide dismutase catalyzes conversion of superoxide radicals and is believed to be important in the pathogenesis of inflammation.[2] The drug is under investigation in man as treatment for inflammatory conditions of the bowel and bladder following radiation therapy, inflammatory conditions of the urinary tract, and for degenerative joint diseases.[1–5]

Lund-Olesen and Menander[3] conducted a study utilizing orgotein intra-articularly into the knees and/or hips of 22 patients with degenerative joint disease. Treatment was evaluated by following the patient's pain pattern when at rest and during motion; measuring the circumference of the knees; range of motion; and overall patient status, both during and after therapy. Of 19 patients with sufficient follow-up, 16 experienced benefits for more than 90 days after termination of treatment.

Marberger et al.[4] treated 22 patients with radiation cystitis, utilizing orgotein intramurally. Evaluation included cystoscopy, voiding volume, loss of pain, spasms, dysuria, incontinence, and hematuria. All patients responded well to orgotein therapy, but two patients required more than four injections to reach the "much improved" status.

Edsmyr, Huber, and Menander[5] conducted a double-blind placebo controlled study utilizing parenteral orgotein in 42 patients who received radiation therapy for bladder tumors. Parameters evaluated were signs and symptoms of radiation-induced-inflammation in the bladder or bowel wall, both during and after termination of radiation. The results suggested that this drug effectively ameliorated or prevented the side-effects associated with high-energy radiation therapy of bladder tumors.

No serious side-effects due to orgotein were observed under the conditions used in these preliminary studies.[1–5]

In conclusion, orgotein appears to be an effective and safe anti-inflammatory agent.

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What is the recommended influenza vaccine for the 1980 to 1981 season, and its recommended schedule for vaccination?

The Advisory Committee on Immunization Practices of the U.S. Public Health Service reviews the formulation of influenza vaccine regularly.* Reformulation of the vaccine is recommended, as needed, to counter major antigenic changes and antigenic drifts.

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* The "Questions and Answers" column is compiled by the Inter-National Pharmaceutic and Therapeutic Drug Information Center (DIC) affiliated with the Arnold and Marie Schwartz College of Pharmacy and Health Sciences (formerly Brooklyn College of Pharmacy) of Long Island University, 81 DeKalb Avenue, Brooklyn, New York 11201. The purpose of the Center is to provide therapeutic and pharmaceutic information not readily available to physicians, pharmacists, and related health professionals at no charge and with minimal time involvement. The Center is staffed by specially trained pharmacists. Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College, is pharmacologist consultant. The service is available from 9:00 A.M. to 4:30 P.M., Monday through Friday, at (212)622-8989 or 330-2735.

* U.S. Department of Health, Education, and Welfare, Morbidity and Mortality Weekly Report, Atlanta, Georgia, Center for Disease Control 29: 19 (May) 1980.

In 1979 to 1980 the influenza vaccine in use was trivalent, containing three antigens: A/Brazil/78 (H_3N_1), A/Texas/77 (H_3N_2), and B/Hong Kong/72. The predominant strain of influenza virus in the United States during this period was B/Singapore/79, a variant of the prototype B/Hong Kong/72.

The vaccine recommended by the U.S. Public Health Service for use during the 1980 to 1981 season will also be trivalent, consisting of inactivated preparations of antigens representative of influenza viruses expected to be prevalent: A/Brazil/78 (H_1N_1), A/Bangkok/79 (H_3N_2) which is a variant of A/Texas/77, and B/Singapore/79. The formulation will contain 7 micrograms of hemagglutinin of each antigen in each 0.5 ml. dose. Persons 28 years and older will require only one dose, since most persons in this age group have already been exposed to the viruses. Because of lack of previous contact with H_1N_1 strains, persons less than 28 years of age who did not receive at least one dose of the 1978 to 1979 or 1979 to 1980 trivalent vaccine will require two doses of the 1980 to 1981 vaccine, administered at least four weeks apart. Those who received the 1978 to 1979 or 1979 to 1980 vaccine will require only one dose. The vaccine will be available as whole virus (whole virion) and split-virus (subvirion) preparations. Since the split-virus vaccines have been shown to produce fewer side-effects than whole virus vaccines in children, only the split-virus vaccines are recommended for persons less than 13 years of age. Children between 3 and 12 years of age should receive two doses of 0.5 ml., each administered at least four weeks apart, while children between 6 and 35 months old should receive 0.25 ml. with the same dosage schedule. However, since the likelihood of febrile convulsions is greater in the latter age group, special care should be taken in weighing relative risks and benefits.

Annual vaccination is strongly recommended for all individuals at increased risk of adverse consequences from infections of the lower respiratory tract. Conditions predisposing to such risk include: (1) acquired or congenital heart disease associated with altered circulatory dynamics; (2) any chronic disorder with compromised pulmonary function; (3) chronic renal disease; (4) diabetes mellitus and other metabolic diseases with increased susceptibility to infection; (5) chronic, severe anemia; and (6) conditions which compromise the immune system.

Vaccination is also recommended for older persons, particularly those over age 65, because excess mortality rates in influenza outbreaks occur in this age group.

In considering vaccination of persons who provide essential community services or who may be at increased risk of exposure, such as medical care personnel, the inherent benefits, risks, and cost of vaccination should be taken into account.

Since influenza vaccine is an inactivated viral preparation, it probably does not pose any special maternal or fetal risk when administered during pregnancy.

Do you have information concerning effectiveness of low dose aspirin for inhibiting platelet aggregation?

Aspirin, at a recommended dose of 1,300 mg. per day, is now indicated for reducing risk of the recurrent TIAs (transient ischemic attacks) or stroke in men, but not women, who have had transient ischemia of the brain due to fibrin platelet emboli. The drug inhibits platelet aggregation and interaction with collagen by blocking an enzyme that mediates prostaglandin formation. Unfortunately, aspirin in large doses is associated with significant incidence of adverse effects and also decreases prostacyclin, a substance that causes vasodilation and potentially inhibits platelet aggregation. Lower doses of aspirin may be as effective as large doses in inhibiting platelet aggregation, and have a less inhibiting effect on prostacyclin, as well as decreasing the incidence of adverse reactions associated with the presently recommended dosage regimen.[1-3]

Paccioretti and Block[1] studied the effect of single doses of aspirin, using 81 to 325 mg., on platelet aggregation in seven patients. Eighty-one mg. of the drug inhibited platelet aggregation as quickly, and to as great an extent, as 325 mg. of aspirin. Platelet aggregation inhibition usually occurred within 30 minutes and lasted for the lifetime of the platelets affected.

Stuart[4] studied the effects of 300 and 3,600 mg. of aspirin administered for varying lengths of time on platelet function. Significant inhibition of collagen-induced platelet aggregation was achieved with 300 mg. of aspirin per day, and the effect was not enhanced, in either rate or degree, by larger daily doses. The onset of effect occurred as early as 15 minutes after the first dose of aspirin and was maintained by the 300 mg. daily dose.

Masotti et al.[5] explored the effect of 320 to 960 mg. per day of aspirin on the inhibition of prostacyclin production and platelet aggregation in 25 healthy volunteers. Inhibition of platelet aggregation was proportional to doses of aspirin in the range 2 to 5 mg. per kilogram. Higher doses significantly inhibited prostacyclin production but only slightly increased inhibition of platelet aggregation.

In conclusion, the recommended dose of aspirin is 1,300 mg. per day to reduce the risk of recurrent TIAs in men due to fibrin platelet emboli. Lower daily doses of aspirin appear to be effective in (1) inhibiting platelet aggregation, (2) inhibiting prostacyclin less, and (3) reducing adverse reactions. Further clinical trials utilizing lower doses of aspirin appear warranted to determine effectiveness in reducing the risk of recurrent TIAs in men.

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Would you please supply information concerning the use of lithium carbonate in the treatment of granulocytopenia?

Reversible leukocytosis is a documented side-effect of lithium therapy.[1] Investigators have successfully used this side-effect to treat leukopenias due to various pathologic and iatrogenic causes.[2-4]

Gupta, Robinson, and Smythe[2] utilized lithium carbonate to treat 10 patients with granulocytopenia associated with Felty's syndrome: classic rheumatoid arthritis, persistent granulocytopenia, and splenomegaly. The drug was administered for six weeks in oral doses of 600 or 900 mg. per day. Patients who received the higher doses exhibited a significant increase in granulocytes with minimal side-effects. More important, none of these patients developed infections due to granulocytopenia during this study period.

Yassa, Nair, and Schwartz[3] utilized 900 mg. per day of lithium to treat phenothiazine or barbiturate-induced leukopenia in three patients with chronic schizophrenia. Over a three-week treatment period, a significant increase in neutrophils, as well as in total white blood count, was observed. After discontinuation of the lithium, there was a steady decline back to base levels.

Stein et al.[5] provided data from six healthy volunteers that indicated 900 mg. per day of lithium caused true granulocytosis rather than just mobilization of granulocytes from bone marrow reserves and/or marginated pools. Results showed a mean increase in circulating granulocytes of 29 percent, an increase in marrow reserves of 36 percent, and an insignificant decrease in marginated granulocytes. Granulocyte function was not detrimentally affected by the lithium.

A study by Lyman, Williams, and Preston[4] is typical of recent reports indicating effectiveness of lithium carbonate to control leukopenias after chemotherapy. Forty-five of 70 patients who received chemotherapy and radiation therapy for bronchogenic carcinoma received lithium carbonate. The group not receiving the lithium therapy was found to have experienced significantly more days with neutropenia, more severe febrile episodes, more days in the hospital with fever, and more infection-related deaths. Other measured parameters seemed to show that use of lithium in conjunction with chemotherapy was beneficial in lowering risk of infection and improving the course and scheduling of treatment for the chemotherapy patient.

In conclusion, lithium carbonate appears to cause a granulocytosis that may be utilized clinically.

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Do anticholinergic drugs used in Parkinsonism have a potential for abuse?

Trihexyphenidyl (Artane) and benzotropine (Congentin) are synthetic anticholinergic agents used as adjuncts in the treatment of parkinsonism and extrapyramidal symptoms secondary to neuroleptic therapy.[1] These drugs have been shown to have an abuse potential.[2-6]

In Britain where trihexyphenidyl was available without a prescription prior to 1964, it was used by young people for its hallucinogenic properties.[5]

Rubinstein[2] reported a case that involved a 27-year-old woman who exhibited bizarre behavior and admitted abusing trihexyphenidyl. She feigned muscle stiffness to obtain prescriptions for this drug from several physicians. The woman said that 15 mg. once or twice daily induced an animated and pleasant hallucinogenic state. Moreover, she reported that her methods for obtaining antiparkinsonism drugs were widely used by drug abusers known to her.

MacVicar[3] reported a case that involved a 30-year-old man who had been prescribed trihexyphenidyl to treat dystonic reactions associated with use of haloperidol (Haldol). The patient admitted that self-medication with 15 mg. of trihexyphenidyl brought about a toxic psychosis with visual hallucinations and a strong need to externalize. Apparently the benefits outweighed anticholinergic side-effects, and the patient continued the abuse.

Bolin[4] described a 32-year-old woman who had been prescrihed trihexyphenidyl for a spastic disorder. Treatment improved her symptoms and induced mild euphoria. As her life became increasingly stressful, she began self-medicating with the drug, eventually reaching a dose of 24 to 30 mg. daily. Ultimately she developed a toxic psychosis, paranoid symptoms, and atropinism.

Goggin and Solomon[5] discussed a case that involved a 40-year-old chemist who received trihexyphenidyl to treat akathisia secondary to use of thiothixene (Navane). The man felt that the trihexyphenidyl had a definite antidepressant effect that the other drug (thiothixene) lacked. After his physician discontinued trihexyphenidyl, he synthesized and ingested the impure chemical to obtain the feeling of well-being that the drug had given him.

Although these citations report the possible abuse potential of trihexyphenidyl; there are several cases of toxic psychosis associated with benztropine one of which was a deliberate overdose by a schizophrenic patient.[6]

One should be aware of the abuse potential of trihexyphenidyl and benztropine. Caution is advised in prescribing these drugs, in particular to those patients who indicate a tendency for drug abuse.

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Geriatrics

A series of articles dealing with problems in aging

IRVING S. WRIGHT, M.D., Editor

Aging, Isolation and Resocialization. Edited by Ruth Bennett, Ph.D. New York, Van Nostrand Reinhold Company, 1980. Hardcover, 213 pages.

This volume is devoted to the problems of isolation, particularly as it affects the elderly segment of our population. Ruth Bennett, Ph.D., has served as editor, and is eminently qualified, having been engaged in studies dealing with this problem for many years. She is at present Deputy Director of the Center for Geriatrics and Gerontology and is on the faculty of both the Teachers' College and the College of Physicians and Surgeons of Columbia University. In addition she has served on numerous councils, boards, and editorial boards of national organizations dealing with aging and its problems. The authors of the chapters have been selected for their experience. Their approach is that of social scientists with considerable field and institutional experience. They deal with recognition of the problem, classification of the types of isolation, social adjustment, and mental disorder in the institutionalized and community-based aged, reduction and prevention of isolation of the aged in a community, evaluating the effects of friendly visits made to them, consequences of isolation, experiments in resocialization, and a summary of the text by Dr. Bennett.

This book should be of interest to social planners, social workers, nursing homes, and visiting care personnel. Since many physicians are now becoming involved in this major problem, they may also be interested.

This volume does not consider, in detail, one of the major causes of isolation encountered by practicing physicians, namely, that patients who are chronically ill with numerous complaints, as a result of rejection, tax the patience of families, friends, and physicians. It is a real problem; it is difficult; it may be tragic; it sometimes defies solution; it requires special care and skill. As in most multi-authored volumes, the writing is uneven in quality and frequently repetitious in substance. Nevertheless, it presents a problem that needs greater recognition as our aging population increases.

IRVING S. WRIGHT, M.D.

Coronary deaths during exercise occur in those already impaired

The tales of middle-aged men who died during strenuous exercise are frequent enough to offer many individuals an excuse for avoiding exercise altogether.

But those men who die on the tennis court or the jogging track almost invariably are individuals who already had serious heart disease, says a report in the October 17 Journal of the American Medical Association.

The Institute for Aerobics Research, an exercise center in Dallas, Texas, kept records for more than five years on almost 3 thousand adults in an effort to determine whether exercise causes heart attacks.

There were only two heart attacks during exercise and no deaths during the study, reports Larry W. Gibbons, M.D. Both men survived and were again exercising regularly.

"It appears that middle-aged men who die suddenly or have cardiac events in association with exercise usually are individuals with severe coronary disease," Dr. Gibbons says.

The Dallas physician cites other studies which found that of 63 cases of sudden death associated with physical exercise, no instance was found in which death could be regarded as due to the effects of extreme exertion on a previously healthy heart.

It is the combination of exercise and disease together that carries the major risk. Exercise places an additional stress on an already susceptible heart.

The conclusion is that there is a small, but not negligible, acute risk of heart attack for adults participating in vigorous exercise. But factors such as heart disease, competition, regularity of exercise, and smoking may modify the risk.

Radiologic Problem of the Month

Montefiore Hospital and Medical Center
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Editor
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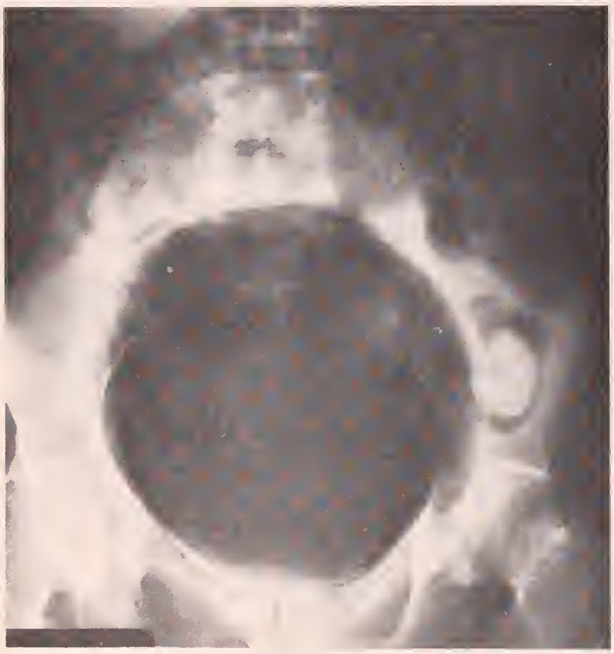
Large Lucency in Lower Abdomen



A 60-year-old woman presents a complaint of distended abdomen.

Elucidation

Anteroposterior view of the lower abdomen and pelvis reveals a large balloon-like lucency extending from the pelvis into the lower abdomen. Radiologically, two major components are present in this lucent shadow. One is the large amount of gas in the lumen and the other is the thin lucency at the periphery giving a double contour to the wall. The viscus we are dealing with is obviously the urinary bladder as the shape and location suggest. In fact, radiopaque contrast material is also present at the base of the bladder from earlier pyelography.

Gas in the lumen of the urinary bladder is observed by (1) instrumentation, for example a Foley catheter; (2) fistulous communications through the skin to the atmospheric air, or more commonly, with small or large bowel, and (3) spontaneous formation.* In the present instance, Foley catheter is not observed and there is no obvious connection between bladder and lumen of bowel. Most important of all, this large amount of gas collection in the urinary bladder is not ordinarly encountered in the aforementioned situations. Hence this must be due to spontaneous formation of gas in the bladder.

The peripheral narrow radiolucent line of gas bubbles outlining the wall represents cystitis emphysematosa. Cystitis emphysematosa and pneumobladder are different radiologic manifestations, may coexist, or may represent concomitant stages of the same basic disorder, and commonly encountered in elderly diabetics.* In long standing diabetic patients, atony of the bladder due to neuropathy is not an uncommon complication. As a result, urinary stasis is present. Fermentation of glucose in the urine occurs, and thus gas, mainly carbon dioxide and, to a small measure, butyric and lactic acids is produced. This gas escapes into the submucosal region of the bladder resulting in the appearance of cystitis emphysematosa.*

The second mechanism of gas production is due to infection. The organisms commonly implicated in this process are *Escherichia coli, Aerobacter aerogenes, Proteus,* and others. Formation of gas due to infection can occur in the absence of glycosuria. In these circumstances, gas production is due to breakdown of albumen by the organisms.

When the radiologic features are doubtful on plain film, erect or decubitus views of the bladder are obtained, and the shifting of gas to the independent portion of the bladder confirms the diagnosis. Once it is confirmed that the gas is in the lumen of the bladder and the peripheral vesicles confined to the wall, the problem of differential diagnosis does not arise. However, a giant diverticulum of the sigmoid, a large vesicoenteric fistula, duplication cyst of the intestinal tract, ruptured pseudopancreatic cyst, and, in women, infection of uterus with *Clostridium welchii* may be considered. Clinical and other laboratory data rule out these considerations.

Diagnosis

Emphysematous cystitis with gas in the urinary bladder

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* Bailey H.: Cystitis emphysematosa, Am. J. Roentgenol. 86: 850 (1961).

Portosystemic Encephalopathy

Resulting from liver involvement in hereditary hemorrhagic telangiectasia

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Hereditary hemorrhagic telangiectasia (Osler-Weber-Rendu disease) is an autosomal dominant disorder which results in widespread formation of capillary-venous malformations and ectatic arteriovenous communications.[1-4] Telangiectases are common within the skin, nasopharynx, and mucosa of the gastrointestinal tract, leading to gastrointestinal bleeding and epistaxis. Additionally, involvement of the abdominal viscera, central nervous system, and lungs is often found.[1,4-6] Hepatic encephalopathy resulting from this form of liver disease has been reported twice before in the literature.[7,8] Both patients presented obvious liver abnormalities, including deranged results on liver function tests and hepatomegaly. This is a report of another case of portosystemic encephalopathy secondary to hereditary hemorrhagic telangiectasia, but is distinguishable from the previously reported cases by the cryptogenic nature of the hepatic involvement.

Case report

An 84-year-old white male was admitted to Montefiore Hospital and Medical Center for the ninth time in March, 1978, with epistaxis, melena, and increasing lethargy. He had a past medical history of congestive heart failure and 13 years of epistaxis and melena, for which he required numerous transfusions. He had one son, who was known to have hereditary hemorrhagic telangiectasia. He denied alcohol use or history of jaundice. During 1977 he had been evaluated several times at our hospital for transient episodes of confusion and lethargy accompanying bleeding episodes. No etiology for the neurologic abnormalities was determined.

On admission in March, 1978, the patient had a blood pressure of 105/80 mm. Hg both supine and erect, and the pulse was 90 per minute. Telangiectases were visible on the lips, tongue, fingertips, and on the mucosa of the nasopharynx. Kayser-Fleischer rings were not seen. He had no hepatosplenomegaly, abdominal bruit, or ascites. He was oriented to person only, and had neither focal neurologic findings nor asterixis. Fetor hepaticus was present.

Peripheral blood smear showed a hypochromic anemia with a hemoglobin of 10.6 per milliliter, and a white cell count of 4,100 with a normal differential. Platelet count was 195,000 per cubic millimeter, and prothrombin time was 11 seconds with a control of 10. A bone marrow aspirate revealed absent iron stores. Chest x-ray films revealed increased transverse diameter of the heart; electrocardiogram showed atrial fibrillation at 90 beats per minute; and arterial blood gas, while inspiring 2 L. per minute of nasal oxygen, was pH 7.45, carbon dioxide pressure 28.2, and oxygen pressure 118.2 mm. Hg. Total bilirubin was 1.2 mg per 100 ml.; serum glutamic oxaloacetic transaminase 25 U, serum glutamic pyruvic transaminase 11 U, alkaline phosphatase 85 IU; total protein 6.5 Gm., albumin 3.2 Gm., and calcium 8.9 mg. per 100 ml.; the thyroxine was 8.7 micrograms per 100 ml. HBsAg (hepatitis B surface antigen) and antibody to HBs (hepatitis B) both showed negative results by radioimmunoassay. Anti-smooth muscle and antimitochondrial antibodies both showed negative results by indirect immunofluorescent assay. Cold agglutinins and alpha fetoprotein test results were negative. A technetium-99m sulfur colloid scan of the liver and spleen demonstrated slightly patchy and decreased uptake in the liver and slightly increased uptake in the spleen.

Recurrent melena and an impaired sensorium prompted further investigation. Barium enema, upper gastrointestinal series, and small-bowel follow-through test results were normal. Esophagogastroduodenoscopy revealed esophageal varices, telangiectasia of the distal esophagus, and numerous telangiectases within the stomach, one of which was oozing blood. Gastric pH was 2. Administration of cimetidine and antacids failed to stop oozing despite

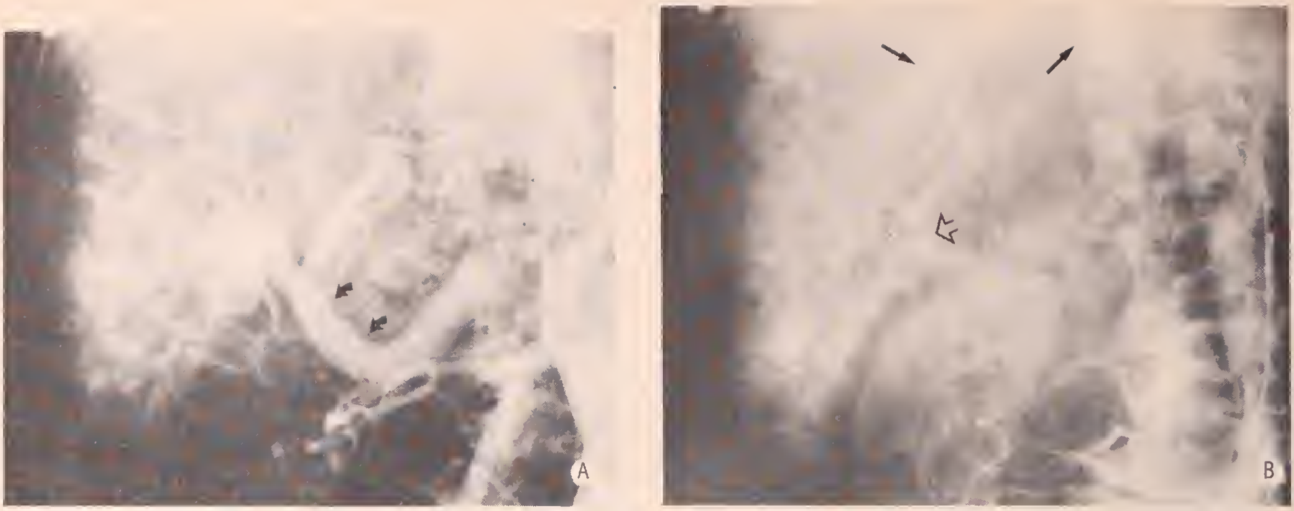

FIGURE 1. Abdominal aortograms. (A) Two seconds after injection of contrast shows marked enlargement of hepatic artery (arrows) and hypervascularity throughout liver. (B) At three seconds reveals opacification of right and left hepatic veins (arrows) and portal vein branches (arrowhead).

the occurrence of alkaline gastric secretion. Colonoscopy revealed two nonbleeding telangiectases in the ascending colon.

An abdominal aortogram and superior mesenteric arteriogram revealed marked dilatation of the hepatic artery with diffuse hypervascularity within the liver (Fig. 1A). There was early filling of the hepatic, and possibly the portal, vein (Fig. 1B). The visualization of these structures is a prominent feature of arteriovenous shunting.[4,9] No cecal ectasia was seen.

Dynamic and static technetium-99m brain scintiphotos showed normal findings, and computerized axial tomographic study of the head, with and without contrast, revealed mild cerebral atrophy. An electroencephalogram showed bilateral synchronous triphasic waves suggestive of hepatic encephalopathy. Serum ammonia during the encephalopathic stage was 118 micrograms per milliliter (normal less than 100 micrograms per milliliter).

The patient was treated with lactulose enemas and suctioning of fresh blood from his nasopharynx. Within 72 hours, the patient's mental status had returned to normal, and repeat serum ammonia was 68 micrograms per milliliter. The patient remained stable on daily oral lactulose administration and was discharged.

Several months later the patient died from perforation of a duodenal ulcer which was confirmed at postmortem examination. Exophageal varices were also confirmed. Other postmortem findings included: A heart that weighed 500 Gm. and showed generalized arteriosclerosis of the coronary arteries, with recent and healed anterolateral subendocardial infarction. Multiple angiomas were present in the spleen, tongue, and also the liver. Examination of the brain disclosed an old cystic infarction of the right parietal lobe. Findings on the remainder of the central nervous system were normal. The liver weighed 900 Gm.; the surface was diffusely nodular with multiple subcapsular hemangiomas noted (Fig. 2). No evidence of cirrhosis was observed although the consistency of the liver parenchyma was increased. On histologic examination of the liver, most sections revealed patchy fibrosis enclosing dilated and tortuous thick-walled vessels, often in a periportal distribution. These areas of fibrosis disrupted the periphery of the liver lobules producing a pseudocirrhotic pattern (Fig. 3). Another prominent histologic finding was the presence of dilated sinusoids lined by endothelial cells. Normal-appearing hepatocytes arranged in single cell plates separated these sinusoids (Fig. 4). A transition of these two patterns is commonly observed in which the dilated vessels and dilated sinusoids were contiguous. In addition to these changes, acute central lobular necrosis secondary to premortem hypotension was present.

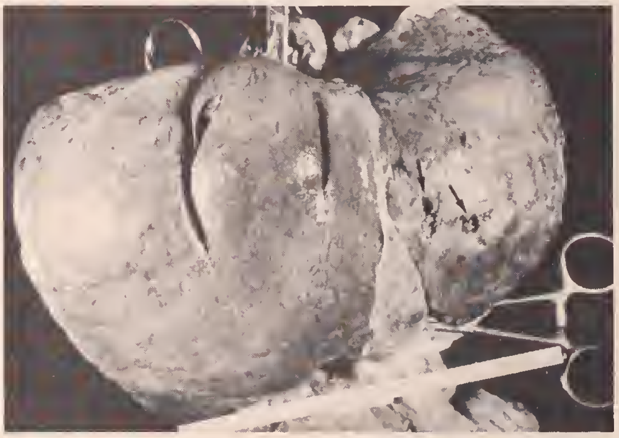

FIGURE 2. Surface of liver showing nodular pattern. Small subcapsular hemangiomas visible (arrows).

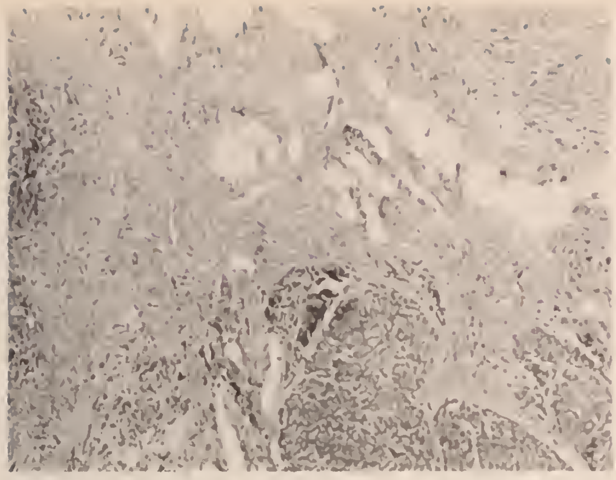

FIGURE 3. Photomicrograph of liver demonstrating patchy fibrosis with thick-walled blood vessels. Note proliferation of fibrous tissue simulating change of cirrhosis, with pseudolobulation.

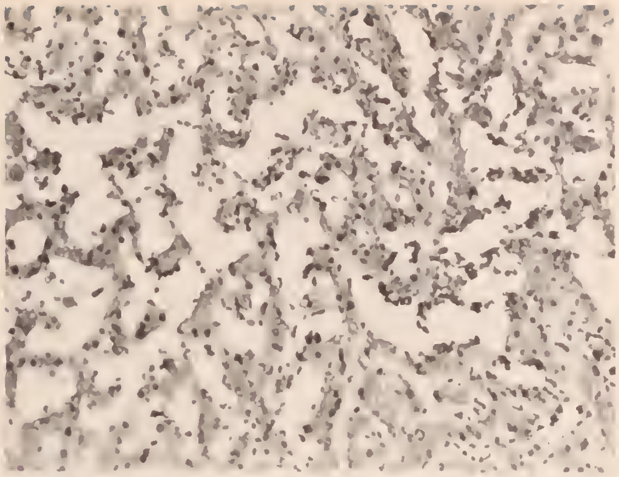

FIGURE 4. Sinusoidal dilatation. Hepatocyte plates widely separated by endothelial-lined dilated sinusoids.

Comment

Liver involvement in hereditary hemorrhagic telangiectasia has been well described. Original autopsy studies reported a significant incidence of Laennec's cirrhosis, post-transfusion hepatitis, and changes compatible with chronic passive congestion. These findings had cast doubt on the concept of a distinctive hepatic pathology in this illness.[10-13] However, recent pathologic and angiographic studies of the liver have shown that a characteristic fibrovascular lesion may develop. In this process, various degrees of intrahepatic fibrous banding form. Within these fibrous bands dilated and ectatic blood vessels are found.[14-20] Zelman[16] has referred to this pattern as diffuse insular hepatic fibrosis. Several observers have noted distortion of the hepatic lobules with regenerating nodules between these bands.[14-17,20]

Angiographically, the liver may demonstrate several distinctive features. Massive dilatation of the hepatic artery, nodular venous pooling, multiple angiomas, and angiodysplastic lesions, have all been reported. Such features usually appear as a constellation rather than separately.[4,7,9,18,21] Additionally, early and dense opacification of the hepatic veins has verified the existence of intrahepatic arteriovenous shunts in nine cases.[4,7,9,18]

What is notable in the case presented is the development of portosystemic encephalopathy as a result of this form of liver disease. Neurologic symptoms, both focal and nonfocal, have frequently been described in patients with hereditary hemorrhagic telangiectasia. Hodgson, et al.[5] in a study of a large kindred afflicted with this illness, noted "peculiar and as yet unexplained symptoms affecting members of the population." Symptoms mentioned specifically were headache, confusion, and loss of consciousness. Pulmonary arteriovenous malformation, occurring in 15 percent of those with hereditary hemorrhagic telangiectasia, with hypoxia, polycythemia, and embolism have generally been offered as the explanations for these neurologic events.[5,22,23] Cerebrovascular malformation has also been postulated as the cause.[1,6] Only twice before in the literature has portosystemic encephalopathy with documented vascular shunting in the liver been shown to be the cause of neurologic abnormalities in this disease. In these cases, hepatic illness was apparent because of tests showing deranged liver function accompanied by hepatomegaly. However, liver involvement in hereditary hemorrhagic telangiectasia may be virtually without clinical correlate.[9,17,19,20] The present case demonstrates this paucity of clinical parameters of hepatic disease. Thus, hepatic encephalopathy may be overlooked as a cause for the neurologic events in this illness.

The electroencephalogram proved a simple and effective first step in evaluating this patient for hepatic encephalopathy. Serum ammonia levels helped confirm the diagnosis. The angiogram graphically demonstrated the characteristic vascular features of hereditary hemorrhagic telangiectasia which allow for portosystemic shunting. Portal hypertension caused by the insular hepatic fibrosis and hepatoportal anastomosis also contributed to the portosystemic shunting.

It is our recommendation that, in the workup of unexplained neurologic symptoms associated with hereditary hemorrhagic telangiectasia, screening for hepatic encephalopathy be conducted. Angiography may subsequently be helpful in establishing the nature of the hepatic disease process responsible for portosystemic shunting.

Summary

Hepatic encephalopathy secondary to liver involvement in hereditary hemorrhagic telangiectasia is described. Other explanations for significant

hepatic abnormalities were ruled out by history, serology, and histology. Two other such cases have been reported. Of particular interest in this case was the absence of abnormal liver function test findings or hepatomegaly. Angiography delineated intrahepatic arteriovenous shunting and diffuse angiodysplasia. Diffuse insular fibrosis of the liver with portal hypertension also developed. These findings are characteristic of this disease and provide an explanation for the occurrence of hepatic encephalopathy in the presence of what otherwise seemed a normal liver. Sequential encephalopathy occurred following upper gastrointestinal hemorrhage. We suggest that unexplained neurologic abnormalities such as lethargy, focal neurologic deficits, and even coma associated with hereditary hemorrhagic telangiectasia, may be a result of a similar mechanism. Electroencephalography and serum ammonia levels should be performed in all those with hereditary hemorrhagic telangiectasia who develop such symptoms. Angiography may then help to substantiate this diagnosis.

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Acknowledgments. We would like to thank Iren Tar, P.A., for technical assistance.

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Pseudomonas Osteomyelitis of Patella

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Recently, ***Pseudomonas aeruginosa*** has been recognized as an etiologic agent in infectious diseases in intravenous drug abusers. This is well-described in cases of endocarditis and in osteomyelitis due to direct contiguous spread. Hematogenous osteomyelitis is less frequently seen, and has a predilection for the lumbosacral spine, sacroiliac joints, and the medial end of the clavicle. This report describes a case of hematogenous osteomyelitis of the patella with direct extension into the knee joint due to *P. aeruginosa*.

Case report

A 25-year-old black male was first admitted to State University Hospital of the Downstate Medical Center on August 4, 1979, with complaints of pain and swelling of the right knee for five days prior to admission. The patient had been an intravenous drug user but denied any intravenous drug use over the last five years. He had had intermittent pain in the right knee over an eight-year period but denied any swelling. Roentgenograms had been taken, but no abnormalities were disclosed.

Five days prior to admission, he had been seen by one of the authors, at which time he had denied any fever, chills, skin rash, urethral discharge, or recent trauma. He had a swollen, hot, and tender knee on physical examination, with a large synovial effusion. X-ray films revealed a moderate joint effusion with sclerosis of the right patella and erosions of its inferior margin. A lucency in the middle of the patella was also noted (Fig. 1A). He was then referred for admission.

Physical examination revealed a well-developed male in no acute distress; blood pressure read 120/70, pulse was 84 and regular, and his temperature was 99.4°F. Examination of the head, eyes, ears, nose, and throat disclosed nothing remarkable. The lungs were clear to percussion and auscultation. The heart was not enlarged, and there was no murmur or rub. The abdominal and neurologic examinations revealed no irregularities. The right knee was warm, erythematous, tender, and swollen with a large effusion.

Laboratory evaluation findings revealed a normal urinalysis, hemoglobin of 12.3 Gm., a white blood-cell count of 9,100 with a normal differential count, and an erythrocyte sedimentation rate of 48 (Wintrobe). Blood chemistries and cultures tested out normal. The VDRL was nonreactive.

Lateral tomograms of the right knee revealed a central patella erosion with surrounding sclerosis (Fig. 1B). The erosion extended through the cortex of the patella and communicated with the joint space.

Arthrocentesis yielded turbid fluid of poor viscosity with a leukocyte count of 22,000, and with 96 percent polymorphonuclear leukocytes. Synovial fluid glucose was 11 mg. per deciliter; Gram stain was bacteria-negative. Culture of the joint aspirate revealed *P. aeruginosa*. He was treated with gentamicin (240 mg. per day), then was later switched to tobramycin sulfate. He achieved blood levels of tobramycin sulfate of 45 mEq. per deciliter. Cultures of daily aspirations of the right knee remained bacteria-positive for two more days. On the third day of treatment, the joint fluid was sterile. He was maintained on tobramycin sulfate, and was doing well, with apparent resolution, until five weeks later when he was noted to have a recurrence of heat, swelling, and tenderness of the right knee. Aspiration yielded 30 cc. of bloody purulent fluid, with a white blood-cell count of 21,000. Cultures were bacteria-negative. He then underwent open drainage of the right knee with synovectomy and curettage of the patella. Synovial tissue cultures were bacteria-negative, and pathologic examination revealed chronic inflammation. He was maintained on tobramycin sulfate (220 mg. per day) and ticarcillin disodium (24 Gm. per day) for six weeks. He had an uneventful recovery, and remained symptom-free following surgery.

Comment

Infection is one of the numerous complications of drug addiction. In early reviews of medical complications of drug addiction, osteomyelitis was not mentioned,[1,2] and the occurrence of osteomyelitis in heroin addicts has only recently been described. In 1971, Holzman and Bishko[3] reported four cases of hematogenous bone infection in heroin addicts. Subsequently, this phenomenon has been well documented by others.[4–6]

As a group, drug addicts are prone to osteomyelitis and septic arthritis of unusual bones and joints; these include the clavicle, vertebral bodies, sacroiliac, and sternoclavicular joints. The patella is a very unusual site of involvement. In a collected series of 1,488

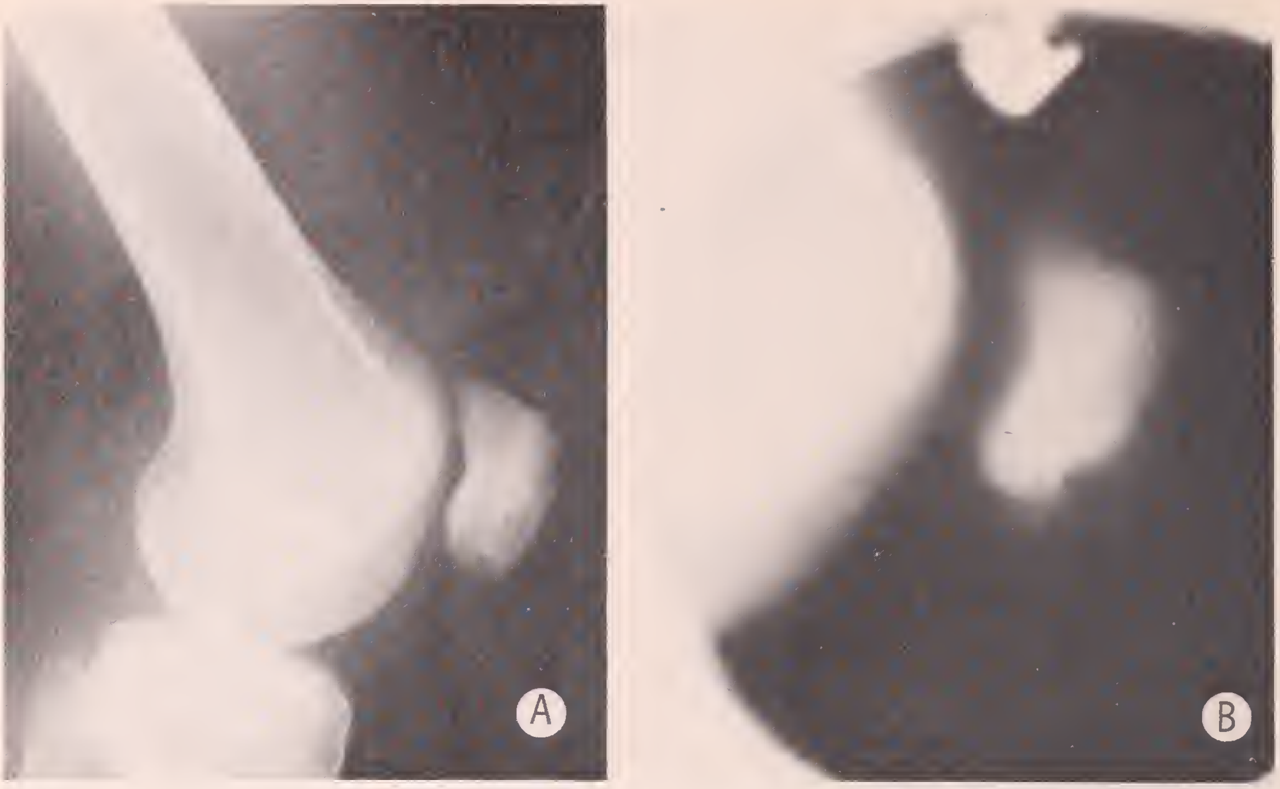

FIGURE 1. (A) Plain radiograph of right knee showing central lucencies within the body of patella with surrounding sclerosis and erosions of inferior margin of the patella. (B) Tomographic examination of the patella revealing central patella erosion with extension through the cortex and communication with joint space.

unselected patients with osteomyelitis, there were only three with involvement of the patella.[7]

The vast majority of osteomyelitis is caused by gram-positive organisms, especially *Staphylococcus aureus*. In a review of 247 cases of osteomyelitis, Waldvogel, Medoff, and Swartz[8] identified only 53 cases due to gram-negative organisms. Of these, 13 were due to *P. aeruginosa*. All these cases were attributed to directed extension from skin or puncture wound, and none by hematogenous spread.[8] Recently, an increase in the incidence of gram-negative rather then staphylococcal osteomyelitis has been recognized in intravenous narcotic abusers.[9]

This case of osteomyelitis of the patella with extension into the knee joint combines many uncommon features including the causative agent, the hematogenous route of infection, the extension from bone to involvement of the joint space, and the site of infection. Only one other case of osteomyelitis of the patella caused by *P. aeruginosa* has been described, and that was due to contiguous spread from a puncture wound soft-tissue infection.[10] No cases of hematogenous osteomyelitis of the patella due to *P. aeruginosa* have been reported.

Summary

The occurrence of gram-negative osteomyelitis and septic arthritis is well recognized, particularly in intravenous drug abusers infected by *Pseudomonas aeruginosa*. Usual sites of infection include the lumbosacral spine, sacroiliac joints, and the medial end of the clavicle. This case represents the first description of hematogenous osteomyelitis of the patella with direct extension into the knee joint due to *P. aeruginosa*.

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Intrauterine Diagnosis of Duodenal Atresia

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With improved ultrasound equipment and increasing sophistication on the part of observers, many fetal anomalies may now be diagnosed in utero. The sonographic appearance of duodenal atresia in the fetus has been described in the radiologic literature.[1,2] We wish to record another case.

Case report

A 19-year-old Hispanic woman, gravida 2, para 1, was referred from the obstetric clinic for ultrasound determination of gestational age. She had received no prior obstetric care. A sonogram revealed a single fetus in cephalic presentation. The biparietal diameter of the skull was consistent with 35 weeks' gestation. There was evidence of polyhydramnios. In the upper portion of the fetal abdomen two sonolucent collections were noted (Fig. 1). One, on the left side of the fetus, was thought to be dilated stomach, while the mass on the right represented dilated duodenum. The possibility of duodenal obstruction with secondary polyhydramnios was suggested. Twenty-six days later the patient was delivered of a 2,540-Gm. male infant by spontaneous normal labor. The Apgar scores were 8 and 9.

Minutes after delivery a nasogastric tube was inserted and 80 cc. of bile-stained fluid were removed. A subsequent plain film of the abdomen showed the classic double-bubble sign of duodenal atresia (Fig. 2).

At operation, at five hours of age, duodenal atresia was found and corrected by means of a side-to-side terminal duodenoduodenostomy. This type of anastomosis avoids development of the blind-loop syndrome. The patient enjoyed an entirely uneventful recovery and was discharged on the seventh day of life.

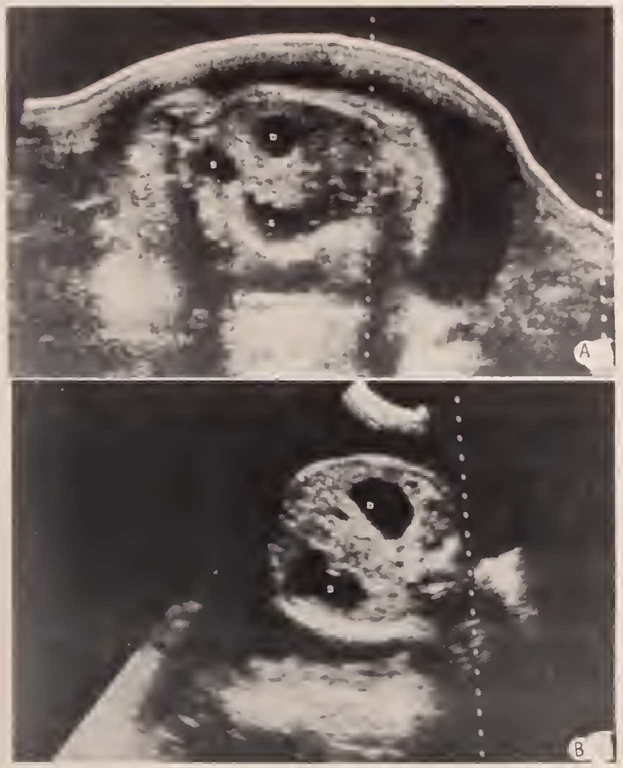

FIGURE 1. Scans. (A) Longitudinal (maternal head on left) through fetal trunk. Three sonolucent areas seen: fetal bladder (b), distended stomach (s), and distended duodenum (d). (B) Transverse showing distended duodenum (d) and distended stomach (s).

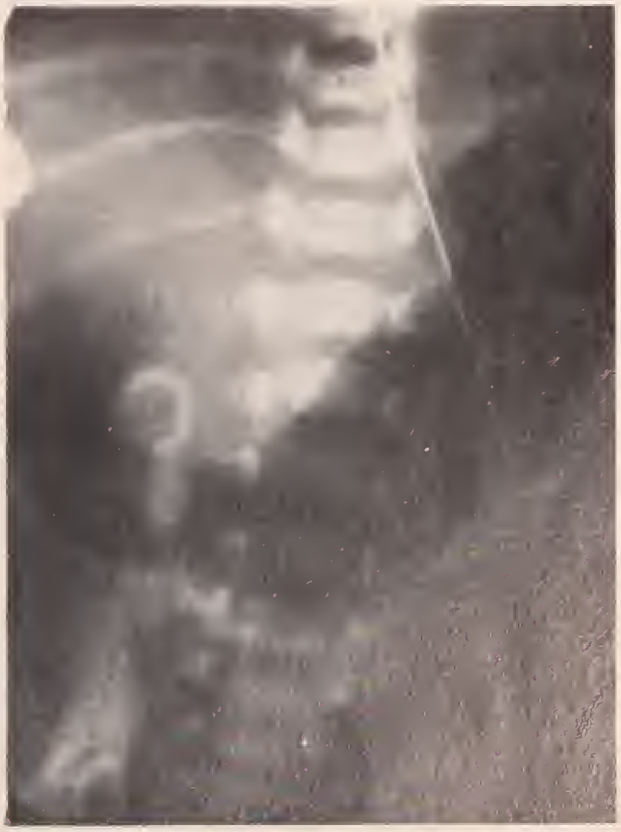

FIGURE 2. Flat film of abdomen, postnatal, showing distended stomach and duodenum.

Comment

The importance of early diagnosis of duodenal atresia has been emphasized in the surgical literature.[3] Early diagnosis permits prompt decompression of the dilated stomach, thus avoiding possible aspiration. There are reports of gastric perforation in cases of duodenal atresia.[4] Early diagnosis should avoid such a grave complication.

Attempts to recognize this entity in utero by amniocentesis in patients with polyhydramnios, with measurement of lipase in the amniotic fluid, have been made. The lipase content is believed to be increased in cases of fetal gastrointestinal obstruction distal to the ampulla of Vater.[5] This is an invasive procedure and there is insufficient information regarding accuracy.

We feel ultrasound offers a simple noninvasive test, with a high degree of accuracy in the diagnosis of duodenal atresia.

Summary

The prenatal ultrasonographic demonstration of duodenal atresia in fetus is described. The importance of early diagnosis by noninvasive methods is emphasized.

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Sunlamp tanning parlors present health hazards

The rapidly growing popularity of sunlamp tanning parlors has prompted a warning this fall that there are dangers to health in seeking an off-season tan from the "artificial suns" of these establishments.

Theodore C. Doege, M.D., of the American Medical Association's Department of Environmental, Public and Occupational Health, points to the recent warnings issued by the Bureau of Radiologic Health of the Food and Drug Administration.

There are several safety factors of concern to physicians in the sunlamp parlors. Positioning of the user in the small booth is difficult. A short move to the back or either side could bring a contact burn from one of the lamps. The timer must be exactly accurate. An error permitting 30 seconds too much time in the booth may result in a severe burn. Proper eye protection is highly important. The goggles must filter the rays, yet must permit sufficient vision to allow the wearer to move around in the booth, and to find the way out in the event of an emergency.

Temperature control and adequate ventilation of the booth also is important, to avoid overheating. Electrical and mechanical devices should be in accordance with local electrical codes. The lamps should be guarded to prevent burn injury should the user stumble or fall. The booths should include rails to grab if needed, and there should be an easy exit if need arises to get out quickly.

The dangers of the tanning booths are added to the well known medical fact that excessive exposure, whether from natural sunlight or artificial lamps, is not good for the skin. An AMA pamphlet, The Sun and Your Skin, details health problems that can follow excessive exposure to sunlight.

Sunburn, though painful, is temporary. But excessive exposure to the sun over a period of years can, and often does, lead to skin cancer. Physicians have long observed that skin cancer is more common in individuals spending much of their time out of doors.

Tanning promotes premature aging of the skin. The teenage girl who bakes in the sun each year may find that when she is 40 her skin looks many years older, with leathery texture, wrinkles, skin folds, and sagging skin.

A recent article in the Journal of the American Medical Association emphasizes the health hazards of sunlight or sunlamps on the skin.

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Prostaglandin E_1 Infusion*

Successful initial treatment

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Coceani and Olley[1] first reported the ability of PGE_1 (prostaglandin E_1) and PGE_2 (prostaglandin E_2) to dilate the ductus arteriosus in vitro in an oxygen-poor environment. Numerous articles have since documented the efficacy of these prostaglandins in the treatment of ductal-dependent cyanotic and acyanotic congenital heart disease in the immediate neonatal period. The oldest reported patient to receive prostaglandin with successful dilatation of a constricted ductus arteriosus was a 28-day-old infant with coarctation of the aorta.[2] The longest reported PGE_1 infusion was 29 days.[3] The maximum age of ductal response to prostaglandin has not been defined. It is the purpose of this communication to describe the effective use of PGE_1 in a baby with cyanotic congenital heart disease who, we believe, is the oldest reported infant with cyanotic congenital heart disease with clinically well-documented ductal dilatation in response to initial PGE_1 infusion.

Case report

The infant was the 2.78 Kg. (6 pounds, 2 ounces) product of a 38-week gestation with a normal spontaneous vaginal delivery to a 29-year-old gravida 3, para 1, abortion 1 female. The pregnancy was complicated by emesis in the first trimester, which was treated with oral doxylamine-pyridoxine (Bendectin). The infant was born in an outlying hospital. Mild respiratory difficulties were reported by the mother in the immediate neonatal period. The patient was discharged from the hospital at the age of three days. Cyanosis was noted at 17 days of age. Following cardiac evaluation at North Shore University Hospital, cardiac catheterization was performed, which revealed pulmonary atresia with intact ventricular septum, rudimentary right ventricle, mildly restrictive atrial septal defect, left aortic arch, and a patent ductus arteriosus supplying blood flow to small, confluent pulmonary arteries (Fig. 1). Attempts at balloon septostomy were unsuccessful owing to severe arrhythmias. The infant was

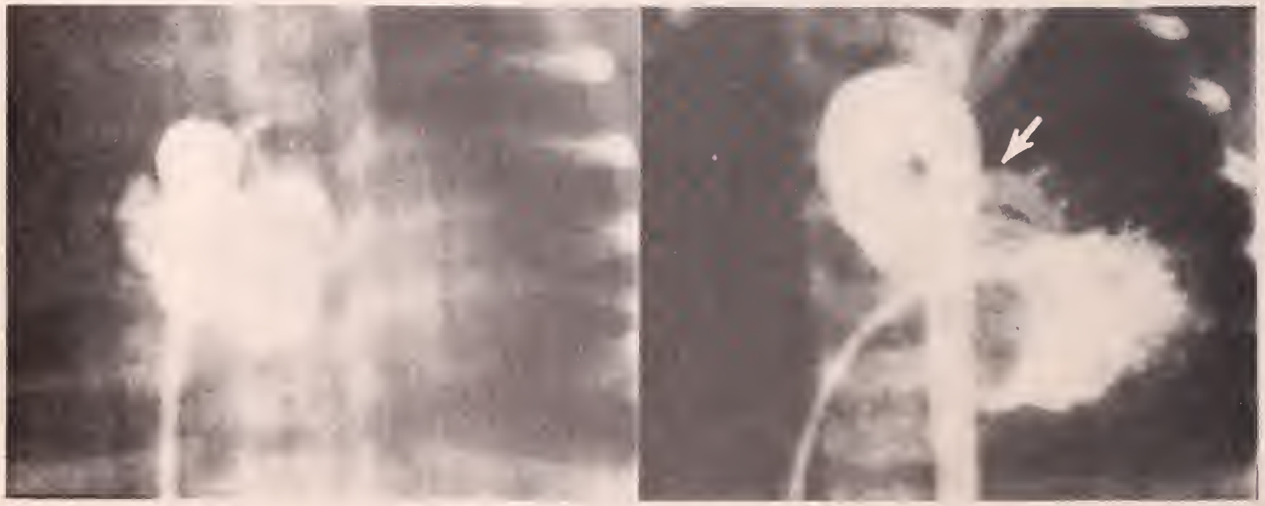

FIGURE 1. Angiocardiograms at 17 days. Left panel: right atrial injection reveals small right ventricle without antegrade flow to pulmonary arteries. Right panel: left ventricular injection demonstrates intact ventricular septum, left aortic arch, and filling of pulmonary arteries through patent ductus arteriosus (arrow).

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† Recipient of an award from the Mary Putnam Jacobi Fellowship Committee of the Woman's Medical Association of the City of New York.

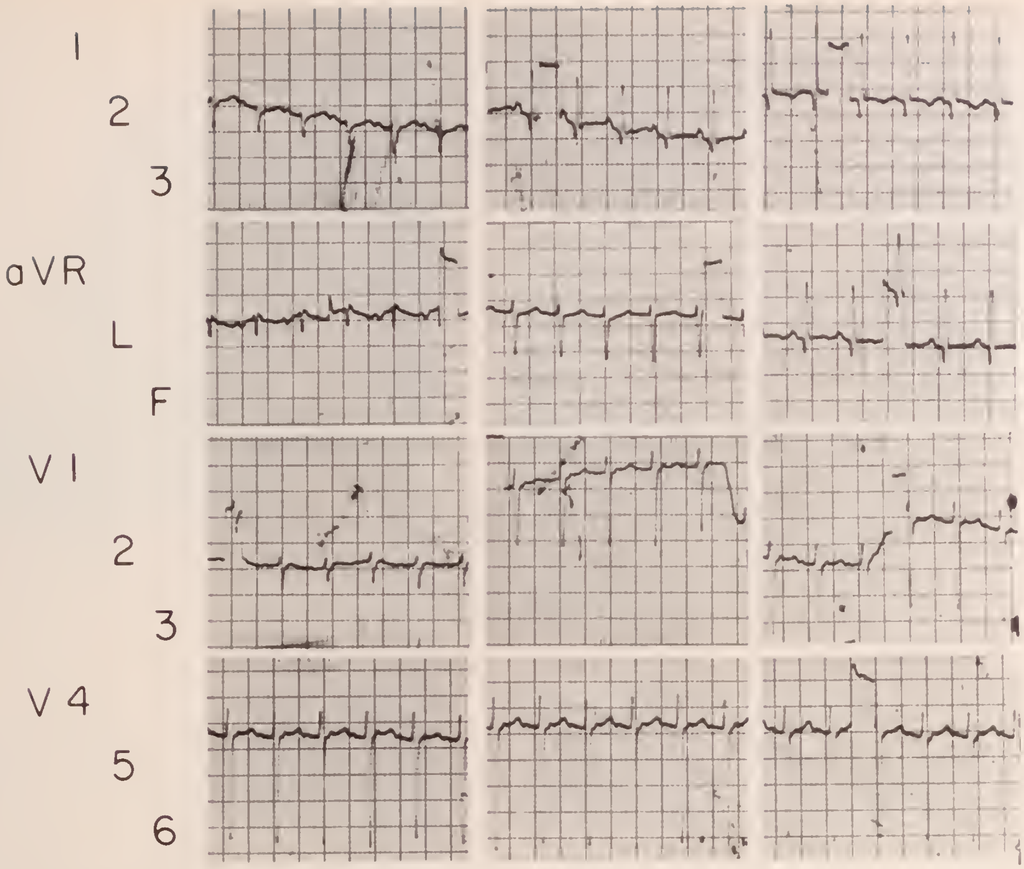

FIGURE 2. Electrocardiogram at 20 days reveals axis of plus 105 degrees, bizarre precordial pattern without dominant R-wave, and T-wave changes of myocardial damage.

transferred to The New York Hospital for further evaluation and treatment.

On admission the patient was in no acute distress. He had moderate generalized cyanosis which increased with crying. His weight was 2.96 Kg., temperature 35.7 °C., and pulse 136 beats per minute. Respirations were 40 breaths per minute, and blood pressure 62 mm. Hg systolic. Findings on general physical examination were normal, and examination of the cardiovascular system revealed a quiet precordium without clinical cardiomegaly. The first heart sound was normal; the second heart sound was single and of normal intensity; no murmurs or clicks were noted; the liver edge was palpable 1 cm. below the right costal margin; the spleen was not palpable; and peripheral pulses were full and equal. The electrocardiogram revealed an axis of plus 105 degrees with a bizarre precordial pattern without a dominant R-wave and T-wave changes of myocardial damage (Fig. 2). Chest x-ray films revealed a normal-sized heart with a concave pulmonary artery segment and markedly decreased pulmonary vascularity (Fig. 3). Echocardiogram revealed a small anterior right ventricle, a large left ventricle, two atrioventricular valves, and a single large posterior root in continuity with the mitral valve. An arterial blood gas study performed with the infant breathing room air revealed a pH of 7.37, PCO_2 (partial carbon dioxide pressure) of 35 mm. Hg, and PO_2 (oxygen pressure) of 28 mm. Hg.

At the age of 20 days, PGE_1 infusion was begun through a catheter positioned in the inferior vena cava at a rate of 0.10 mcg. per kilogram per minute. Informed consent was obtained from the mother in accordance with the regulations of The Committee on Human Rights in Research of The New York Hospital. One hour after the commencement of the PGE_1 infusion, a Grade II to III/VI holosystolic murmur was audible at the base, and was most prominent at the second to third left intercostal space. At that time a repeat arterial blood gas test revealed a pH of 7.33, PCO_2 of 44 mm. Hg, and PO_2 of 35 mm. Hg. The murmur and PO_2 levels were maintained when the PGE_1 infusion was decreased to 0.05 mcg. per kilogram per minute.

On the day following admission, an atrial septectomy and a right subclavian-to-right pulmonary artery anastomosis were performed. The PGE_1 infusion was discontinued at the time of surgery. The postoperative period was complicated by increasing cyanosis, a falling PO_2, and the absence of a shunt murmur. The PGE_1 infusion was therefore reinstituted, with prompt improvement in the patient's clinical condition. The arterial PO_2 increased from

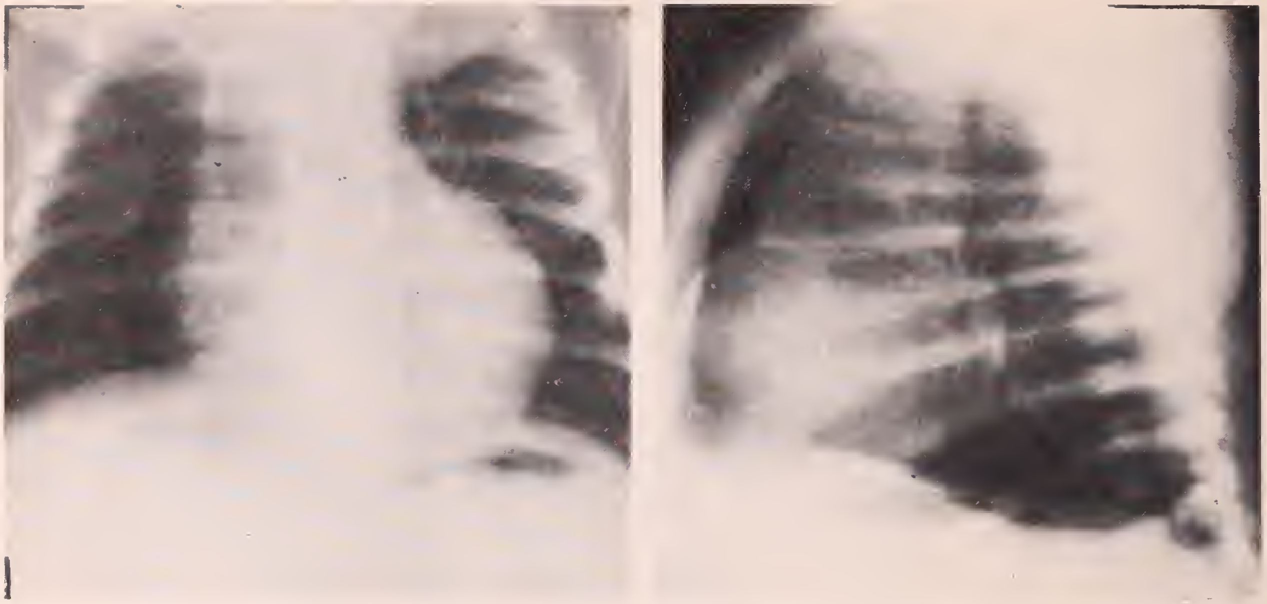

FIGURE 3. Anteroposterior and lateral chest x-ray films reveal decreased pulmonary vascularity and concave pulmonary segment.

27 to 49 mm. Hg. Attempts at discontinuing the PGE_1 infusion were unsuccessful, as indicated by a decreasing PO_2 each time the PGE_1 infusion was stopped. A left subclavian-to-left pulmonary artery anastomosis was subsequently performed three weeks later. PGE_1 infusion was continued intermittently during this time. The second shunt functioned well, and the patient was discharged. He has been developing and progressing favorably at home. No PGE_1 side-effects were noted.

Comment

While searching for the chemical mechanism of ductal closure, Coceani and Olley[1] first demonstrated that PGE_1 and PGE_2 dilated the ductus arteriosus in vitro, while prostaglandin F_2 alpha caused ductal constriction. These effects were more pronounced in an oxygen-poor environment. PGE_1 and PGE_2, as constant intravenous or intra-arterial infusions, were subsequently used successfully in the emergency treatment of cyanotic, ductal-dependent congenital heart disease.[4–7] Of the two, PGE_1 has been more widely used and appears to have fewer side-effects, which include fever, flushing, twitching, apnea, bradycardia, and seizures.[5] Lang and coworkers[8] treated five infants with d-transposition of the great arteries, intact ventricular septum, and patent ductus arteriosus, who had persistent severe hypoxemia despite creation of an adequate interatrial communication. They noted dramatic improvement in three infants. Lewis and Lurie[3] reported a PGE_1 infusion of 29 days' duration in a premature infant (36 weeks' gestational age) with tetralogy of Fallot. Coe and Silove[9] successfully administered PGE_2 orally on an hourly basis for over one month in the palliation of a premature infant (36 weeks' gestation) with pulmonary atresia, intact ventricular septum, and a severely hypoplastic right ventricle. PGE_1 has also been used successfully in the emergency palliation of acyanotic ductal-dependent congenital heart disease such as interrupted aortic arch and coarctation of the aorta.[2,10–12] However, pathologic changes have been noted at necropsy in the ductus arteriosus in four infants treated with PGE_1 for ductal-dependent cyanotic congenital heart disease. Interruption of the elastic lamina, medial edema, and intimal laceration were noted.[13,14]

The ability of prostaglandins E_1 or E_2 to dilate the ductus arteriosus in infants beyond the immediate neonatal age group is unpredictable. The premature infant treated by Lewis and Lurie[3] was four days of age when PGE_1 was first started. PGE_1 was not effective in dilating the ductus arteriosus in either cyanotic[15] or acynotic[2] congenital heart disease when ductal closure had been documented angiographically. Prostaglandin E_1 was ineffective in a 99-day-old infant with transposition of great arteries, ventricular septal defect, and pulmonary atresia,[5] and in a 34-day-old infant with ductal-dependent pulmonary blood flow.[16] However, possible response to a prostaglandin E_1 infusion was obtained in a 25-day-old infant with d-transposition of the great arteries, in whom a narrowed ductus arteriosus was demonstrated during cardiac catheterization at 1 day of age.[5] In the latter case, the infant was treated with a PGE_1 infusion at 25 days of age when increasing cyanosis was noted, and an improvement in oxygen tension was present 18 hours following commencement of therapy. No documentation of changing cardiac murmurs was made, nor was angiographic confirmation of ductal patency obtained.

Heymann et al.[2] reported their experience with PGE_1 in a series of infants with aortic arch interruption and coarctation of the aorta. PGE_1 did not appear to be effective in dilating the ductus of a five-month-old infant with coarctation, patent ductus arteriosus, and ventricular septal defect. Ductal dilatation in response to PGE_1 was documented, however, in a 28-day-old infant with coarctation of the aorta and patent ductus arteriosus, by recording pressure measurements in the left ventricle and descending aorta distal to the site of coarctation. The site of infusion did not appear to be critical in determining the response of the ductus to PGE_1 infusion.

Our patient is the oldest reported infant with cyanotic, ductal-dependent congenital heart disease with clinically documented ductal dilatation in response to initial PGE_1 infusion. Although no cardiac murmurs were noted on admission to the hospital, a Grade III/VI holosystolic murmur appeared at the base of the heart within 12 hours of treatment with PGE_1 (0.10 mcg. per kilogram per minute) administered through a central intravenous line, and the arterial PO_2 increased from 28 mm. Hg to 33 mm. Hg. The infusion commenced 20 days after birth and was continued intermittently for the next three and one-half weeks, allowing a planned approach to surgical intervention. Ductal patency had been established angiographically prior to treatment, when no murmurs were audible.

Summary

In view of our favorable experience with this patient, we would recommend a trial of PGE_1 (prostaglandin E_1) in infants with cyanotic, ductal-dependent congenital heart disease at an age beyond the immediate neonatal period with angiographic evidence of ductal patency, regardless of age and the presence or absence of ductal murmurs.

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Saphenous Neuropathy

Following coronary artery bypass surgery

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During coronary artery bypass surgery the saphenous vein is used as a source for the necessary vein grafts. Although these grafts have frequently been taken from the groin or thigh in the past,[1,2] the recent trend has been toward using the more distal vein segment below the knee, which has a diameter similar to that of the coronary arteries.[3] At this level the saphenous vein lies in close proximity to the saphenous nerve, a purely sensory branch of the femoral nerve supplying the skin on the medial side of the leg and foot.[4] The nerve is, therefore, exposed to injury from intraoperative traction or direct trauma, or from postoperative edema. This potential problem has been largely overlooked in the clinical literature. Schnall and San Luis[5] recently reported an isolated case of postcoronary bypass saphenous neuropathy; we are reporting on two additional cases of this syndrome.

Case reports

Case 1. A 50-year-old man with progressively worsening angina pectoris underwent coronary artery bypass surgery four months preceding our evaluation. Vein grafts were taken from the distal saphenous vein in the right leg. In response to questioning, he reported that he had felt numbness on the medial side of the right leg since his surgery. Findings on physical examination showed his surgical scar was well-healed and nontender (Fig. 1). Findings on neurologic examination were within normal limits except for diminished sensation to pinprick, touch, and temperature in the distribution of the saphenous nerve (along the medial side of the calf and foot to the level of the ball of the great toe). The sensory symptoms were constant but in no way interfered with the patient's normal function.

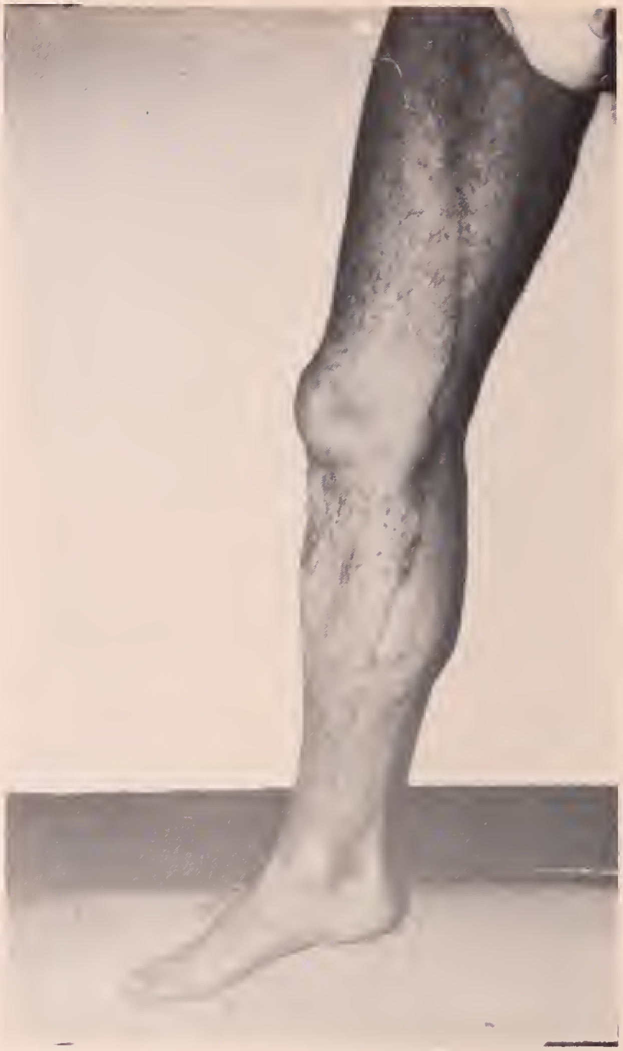
FIGURE 1. Location of scar following removal of saphenous vein grafts from Case 1.

Case 2. This 52-year-old man had undergone coronary artery bypass surgery three and one-half years previously, with the distal right saphenous vein being used for vein grafts. He reported loss of sensation on the medial side of his calf since his operation. Findings on neurologic examination revealed hypalgesia in the right lower extremity consistent with involvement of the saphenous nerve.

Method

Both of the patients had electrodiagnostic evaluation to confirm the clinical impression of saphenous neuropathy. These included the following bilateral studies: (1) femoral nerve motor latency; (2) saphenous nerve conduction velocity, latency and amplitude; and (3) sural nerve conduction velocity, latency, and amplitude.

The technique used for measurement of saphenous nerve conduction was developed by our department

TABLE I. Sensory conduction studies in two patients following coronary bypass

Patient	Sensory Studies	Saphenous		Sural	
		Right	Left	Right	Left
1	Conduction velocity	Absent	32.4 M. per second	36 M. per second	34.2 M. per second
1	Amplitude	Absent	5 microvolts	35 microvolts	30 microvolts
2	Conduction velocity	40.5 M. per second	45.7 M. per second	43.2 M. per second	40 M. per second
2	Amplitude	3 microvolts	10 microvolts	20 microvolts	25 microvolts

and has been described in detail elsewhere.[6] Our technique for sural nerve conduction is adopted from that reported by DiBenedetto.[7]

Results

The results of sural and saphenous conduction studies in these two patients are summarized in Table I. Findings on all the electrodiagnostic studies mentioned were within normal limits for our laboratory in both patients, with the exception of saphenous nerve conduction studies in the leg from which vein grafts were removed. In Case 1 the evoked response of the saphenous nerve was unobtainable; in Case 2 the response was dispersed and of very low amplitude (3 microvolts compared to 10 microvolts on the opposite side), although conduction velocity was not reduced.

Comment

Because of the close relationship between the saphenous nerve and vein in the leg, nerve trauma may occur during or after vein graft removal. The consequences of such trauma are sensory symptoms in the distribution of the saphenous nerve, that is, the medial aspect of the calf and foot as far distally as the ball of the great toe.[4] These sensory sequelae are not disabling, but they may alarm or annoy the post-coronary bypass patient. Physicians should be alert to the possibility of saphenous neuropathy occurring in those patients whose vein grafts were taken from the distal saphenous vein, and should explain the cause of the symptoms to the concerned patient. It is possible that with increased awareness of this clinical syndrome, its incidence will be found to be considerably higher than these isolated case reports would suggest.

Summary

Two cases of saphenous neuropathy following coronary artery bypass surgery are reported. Because of this nerve's proximity to the saphenous vein, it can be damaged during removal of saphenous vein grafts. The resulting sensory symptoms, while not disabling, may be annoying to the patient, and physicians should be aware of their potential occurrence and etiology.

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Agoraphobia in Alaskan Eskimo

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A German physician named Westphal[1,2] originated the term agoraphobia in 1871. The word is derived from Greek—agora, meaning public place or market place, and phobia, meaning fear of. He used this term to describe several of his patients whom he thought had a fear of these two situations. Westphal's[1] observations lay largely unnoticed until the 1960s. In 1965 a BBC (British Broadcasting Company) radio program interviewed an individual who had suffered an attack of agoraphobia.[3] At the conclusion of the program, numerous phone calls and letters were received from many other people in Great Britain who, themselves, suffered from agoraphobia. This experience sparked considerable interest in agoraphobia in the medical community in Great Britain, and also resulted in the formation of an organization called The Open Door; this was composed of phobic individuals who wished to communicate with each other. From Great Britain, the interest in this disorder spread to North America. Finally, in 1980, agoraphobia has become officially recognized by the American Psychiatric Association as a diagnostic entity as defined in the *DSM III* (*Diagnostic and Statistical Manual*).[4]

In the *DSM III*, agoraphobia is defined as "a phobic disorder in which the predominant disturbance is an irrational fear of leaving the familiar setting of the home. It is almost always preceded by a phase during which there are recurrent panic attacks. The individual develops an anticipatory fear of helplessness when having a panic attack and therefore is reluctant, or refuses, to be alone, to travel or walk alone, or to be alone in unfamiliar situations, such as in crowds, closed or open spaces, crowded stores, bridges, tunnels, or churches. These fears are pervasive, and dominate the individuals's life, so that a large number of situations are entered into only reluctantly or are avoided. In the severe form of the disorder, the individual is "housebound." The individual avoids at least one of the following situations:

1. Closed or open spaces.
2. Traveling while alone.
3. Traveling more than five miles from home by any means.
4. Walking alone.
5. Being alone.

Outside of English publications there is virtually no literature on agoraphobia, and transcultural studies of agoraphobia do not exist. It is not known whether or not this disorder occurs in non-European peoples.

As far as the author, formerly chief psychiatrist for the Alaska Native Health Service, could determine, the following case report is the only one thus far to describe agoraphobia in a person from a non-European culture.

Case report

A 31-year-old married Eskimo male, who lives in an Eskimo village in Western Alaska, was seen by the author during a mental health clinic held in the region; his wife accompanied him in the interview. Both spoke English, and both had lived away from home while attending high school, where the language of instruction was English. Both had been born and reared in the same village, with Eskimo being their first language, and both still spoke Eskimo at home.

The husband's chief complaint was that he was "very nervous." He said that he had begun feeling nervous over three years before, and now stayed at home most of the time. Going out alone made him feel worse unless he went with his wife, who, herself, had a chronic physical illness. The men of his village were responsible for hunting, fishing, and carrying water or ice to the house, these activities being done with snowmobiles or dog teams. As he became increasingly anxious over the preceding several years, he became housebound and unable to perform these necessary activities, having to rely on other villagers, relatives, and public assistance. He had wanted to come to the hospital sooner but stated he had more difficulty traveling in the winter when his anxiety was worse.

He and his wife had made the 50-mile journey to the hospital on a snowmobile. He did not know what caused his problem, but at one point wondered if an episode of "flu" several years ago had triggered it. He did not show any signs of being psychotic.

It is tempting to speculate that agoraphobia is a culture-bound syndrome, one that is a by-product of western European civilization and its ever-increasing cultural complexity and stresses. It is far more likely that agoraphobia occurs in the planet's many and diverse cultures, but just has been overlooked or misdiagnosed, as it has been in American psychiatry until recent years. It would be interesting to know what form agoraphobia takes in nomadic groups or among the Chinese.

Conclusion

This single case report may have other more practical significance, however. Klein[5] has shown that agoraphobia may be treated successfully with antidepressant drugs. Mullaney and Trippett[6] have recently reported that as many as one third of the alcoholic persons in their series of 101 patients were suffering from severe agoraphobia or other social phobias. Problem drinking is severe and widespread in some native American groups.[7] It is possible that many native Americans suffer from severe phobias, such as agoraphobia, which is a potentially treatable cause of alcoholism. One must concur with the statement by Mullaney and Trippett[6] that "All problem drinkers require to be screened for phobic symptoms." For native Americans, whose cultures vary widely, this effort will require careful study, diligent work, and patient understanding of the cultural issues involved. The *DSM III* criteria noted earlier for the diagnosis of agoraphobia may need to be modified before they might be applicable to native Americans. Also, it is quite possible that some groups, such as the Navajos, may have developed their own cultural treatment methods for this disorder.

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Journal presents profile of child abuser

What sort of mother abuses her child?

To assist physicians in evaluating potential child abusers among their patients, a table of characteristics of abusive mothers is published in the November 14 issue of an American Medical Association specialty journal.

One salient factor prevails, says Barbara Rosen, Ph.D, of the University of California, San Diego. Writing in the American Journal of Diseases of Children, Dr. Rosen points out that abusive parents generally maintain unrealistically high levels of expectation from their children.

Among child abusers there is a preponderance of poor, female-headed households with an above-average number of children, she says. The children often have developmental problems, stemming from prematurity, physical disability, or intellectual deficit.

Dr. Rosen lists six points that mark the abuser.

1. The mother sees herself negatively; expects failure and censure; feels guilty and inadequate.
2. She has high and unrealistic expectations of herself and her child; is very sensitive to criticism.
3. The mother has no firm sense of self; cannot convey stable images to the child; may have difficulty following through consistently.
4. She resents rules and regulations; feels underlying hostility to authority and social demands.
5. She has difficulty finding pleasure in caring for children; may find child care unsatisfying.
6. She enjoys authority over others; may seek authority exclusively over the child.

The physician who observes these personality traits in the mother of a young patient who obviously has been beaten or otherwise hurt can help her to control the problem, Dr. Rosen says.

The abusive mother might refuse to follow through with psychotherapy, but she might listen to her child's physician. In addition to medical treatment of the child, the physician can provide the mother with factual information on child rearing, and more realistic expectations of maternal functioning. The physician can help the mother increase her self esteem, lower her expectations and relieve her guilt at not being satisfied with herself, she declares.

Adult Respiratory Distress Syndrome One Month Following Myocardial Infarction

Differential diagnosis, including particularly Dressler's syndrome

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Case history

This was the third Bronx Municipal Hospital Center admission for this 67-year-old hypertensive male one week following discharge from the hospital after having had a documented MI (myocardial infarction).

During the previous hospitalization his course was complicated by an episode of ventricular tachycardia, hypotension, and congestive heart failure. Fever, pleural effusion, pericardial friction rub, and atrial fibrillation were treated with digitalis, diuretics, aspirin, and propranolol hydrochloride. The patient responded to treatment and was discharged with a chest roentgenogram showing borderline cardiomegaly, and no congestive heart failure, pleural effusion, or pulmonary infiltrates.

The patient was readmitted to the hospital with cough, pleuritic chest pain, and a fever of 102.4°F. There was a Grade II/VI holosystolic murmur at the apex which had been auscultated previously, and no gallops, neck vein distention, or hepatosplenomegaly. The electrocardiogram and chest roentgenogram findings were unchanged. Laboratory data showed hemoglobin 10.3 Gm. per 100 ml., hematocrit 30.8, and a WBC (white blood-cell) count of 8,500. The erythrocyte sedimentation rate was 105 mm. per hour, the BUN (blood urea nitrogen) 29 mg. per 100 ml., and the tuberculin test findings were normal. Blood and urine cultures were negative for active infection. The patient was treated with digitalis and diuretics; he became afebrile, but developed a tachycardia to 110 per minute and dyspnea. Arterial blood gases (room air): pH 7.45; pCO_2 (carbon dioxide pressure) 24.4 and pO_2 (oxygen pressure) 90.5 mm. Hg. The creatinine was 0.8 mg. per 100 ml.; SGOT (serum glutamic oxaloacetic transaminase) 6, SGPT (serum glutamic pyruvic transaminase) 6, LDH (lactic acid dehydrogenase) 48, and CPK (creatine phosphokinase) 195 units; calcium 8.9 mg., phosphorous 3.6 mg., and total bilirubin 0.5 mg. per 100 ml.; alkaline phosphatase was 41 units; and the electrolytes were normal. The electrocardiogram showed a sinus tachycardia, axis plus 35°, P-R interval 0.14, QRS 0.06 second, T-wave depression in leads I, II, III, aVf, V_5 to V_6, with a flat T wave in all leads, and S-T segment depression in V_1 to V_4.

One week after admission the patient had cough, shortness of breath, chest pain, and rapid atrial fibrillation at 120 per minute. The chest was clear without rales, the blood pressure 95/50 mm. Hg, the electrocardiogram unchanged, the LDH 226 and CPK 108 units changing to LDH 365 and CPK 45 units 48 hours later. The chest roentgenogram showed bilateral pleural effusions, cardiomegaly, and congestive heart failure. The pleural fluid had 890 RBCs (red blood cells) and 80 WBCs per cubic millimeter, no organisms, LDH 196 units, and protein 2.9 Gm. per 100 ml. The echocardiogram showed an enlarged aortic root (4.1 cm.), dilatation of the left ventricle, left ventricular ejection fraction of 36 percent, normal left atrium and mitral valve, pleural effusions, and no pericardial effusions. A Swan-Ganz catheter was inserted, and initial pressures (in mm. Hg) were: right atrial mean 6, right ventricle 35/10, and pulmonary capillary wedge mean 10. Diuretics were withheld, dyspnea diminished, but the chest x-ray films still showed bilateral pleural effusions. The following day the Swan-Ganz catheter revealed (in mm. Hg): pulmonary artery 34/14, pulmonary capillary wedge mean 12, with a V wave of 28. The calculated cardiac output (Fick) was 4.6 L. per minute. The patient received 3.6 Gm. of aspirin per day for five days, with no evident response, and then high doses of corticosteroids for the final two weeks.

Two weeks after admission, the chest roentgenogram showed multiple bilateral infiltrates. The arterial blood gases, at this time, were: pH 7.45, pCO_2 26 mm. Hg, pO_2 81 mm. Hg, and oxygen saturation 94 percent. Despite diuretic therapy, the patient became dyspneic again, and developed bilateral rales and pedal edema. The Swan-Ganz pressures were (mm. Hg): right atrial mean 6, right ventricle 65/6, pulmonary artery 60/14, and pulmonary capillary wedge mean 28, with a V wave of 48. Following nitroprusside therapy, the pulmonary capillary mean wedge pressure was 10 to 12 mm. Hg, with the V waves decreasing to 30 mm. Hg. The rales cleared, but the patient remained dyspneic; on 40 percent oxygen by mask, the pO_2 was 40 mm. Hg. The patient was intubated and treated with antibiotics. Blood cultures were bacteria-negative. He could not be weaned from the respirator. Hemoptysis developed, the hematocrit fell from 40 to 27, with a platelet count of 20,000 per cubic millimeter, and the BUN rose to 75 mg. per 100 ml. Two units of packed RBCs were administered. Prolonged prothrombin and partial thromboplastin times, as well as positive fibrin split products, were noted. The Coombs' test findings were normal. Clotting parameters returned to normal limits, but the platelet count remained low.

Severe respiratory distress persisted, complicated by fever and *Escherichia coli* urinary tract infection, metabolic acidosis, and ventricular tachycardia. The patient had a cardiac arrest 26 days after admission and expired.

Clinical discussion

Dr. Rubin and Dr. Frishman*: It is best to divide this discussion into three parts. Part I involves the differential diagnosis of chest pain, increased sedimentation rate, and fever in a patient with pleural, pulmonary, and pericardial involvement following an MI; Part II concerns the significance of the left ventricular V waves seen during the course of hospitalization; and Part III explores the development of the ARDS (adult respiratory distress syndrome). These three components of this case must be addressed in terms of their etiologic and pathophysiologic factors.

Part I. In the differential diagnosis of chest pain, increased sedimentation rate, and fever in a patient after MI, there are six major possibilities to consider: (1) extension of an MI, (2) dissecting aneurysm, (3) pulmonary embolus, (4) endocarditis, (5) SLE (systemic lupus erythematosis), collagen vascular disease, and (6) post-MI syndrome.

1. Extension of an MI. In considering a patient who recently has had an MI and now develops chest pain and elevated sedimentation rate, you must think about extension of the infarction. In view of the recent work by Hutchins and Bulkley,[1] the expansion of an infarction should also be considered in this same clinical setting. However, this patient had no evidence of increasing congestive failure initially, and there were no new serum enzyme elevations compatible with ongoing myocardial necrosis. Therefore, I do not think his course, which consisted of many recurrences, was compatible with extension or expansion of a myocardial infarction.

2. Dissecting aneurysm. Dissecting aneurysm should also be considered. The most common symptom in dissecting aneurysm, generally more common in men than in women, is pain, which is seen in 94 percent of patients. The peak incidence occurs in the sixth and seventh decades, and 77 percent of patients suffer acute dissection[2]; 6 percent may have a subacute dissection, and 17 percent may have a chronic course. The increased LDH in this case could have been due to hemolysis of blood in a false channel. The chest x-ray film findings are generally abnormal in 85 percent of the cases, producing an abnormality in the aortic contour. There are predisposing factors, with prior hypertension seen in the majority of the cases.[2] If dissection were occurring in this patient, we would have expected a bloody pleural effusion. The fact that his effusion was nonhemorrhagic does not rule out dissection; however, this finding is usually related to congestive heart failure due to aortic insufficiency, which was not present in this case.

3. Pulmonary embolus. Pulmonary embolism also must be considered; it is estimated that this is responsible for some 50,000 deaths per year. Autopsy data from a number of hospitals have disclosed that emboli may be found in 20 to 30 percent of cases and upward of 60 percent, depending on the care taken in searching for them.[3] In this case, MI and bed rest certainly increased the risk. Evaluation of pleural fluid in the setting of pulmonary embolus is generally not helpful.[4] In one study, bloody exudates were seen in 65 percent of cases, but clear effusions may also be seen following pulmonary emboli. The symptoms may be variable, but dyspnea is one of the most reliable signs. Pericardial involvement as a manifestation of this condition is rare.

4. Endocarditis. One needs to consider the diagnosis of endocarditis because of the presence of murmur and fever in this patient. Persistently bacteria-negative cultures are against the diagnosis. Pulmonary and pleural involvement are generally secondary to embolic events in the setting of endocarditis, and they are usually related to endocarditis of the right side.

5. SLE collagen vascular disease. SLE must be considered. Fever, murmur with Libman-Sacks endocarditis, and pericardial, pulmonary, and pleural involvement may be explained with this diagnosis. However, this patient had an MI; as an initial manifestation of SLE, this would be unusual, especially since the occurrence of coronary artery vasculitis with lupus is unusual.[5] Pulmonary symptoms in SLE are not uncommon, and recurrent infiltrates may be seen. Pulmonary features are usually not a major factor in the course of the disease. The major reason to rule out SLE, however, is the fact that this patient seemed to have more of a "neighborhood" serositis, and most of his findings were related to the primary infarction. In a male in this age group, the overwhelming odds favor that his symptoms were secondary to atherosclerotic heart disease.

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6. Post-MI syndrome. Finally, the post-MI syndrome, or Dressler's syndrome, must be considered. For this diagnosis, first let us look at the manifestations. Fever may merge with the initial temperature elevation of an infarct, or it may appear as a secondary rise from weeks to months after the event. The fever is usually in the range of 101 to 102°F. and generally persists for one week. The patient is often afebrile between flare-ups. Pain, which this patient had, is generally the most sensitive index of complicating pleuropericarditis, and often precedes the onset of fever. It is absent only in exceptional cases. The intensity of pain varies from crushing and agonizing, to dull, or it may be just a raw feeling the patient fails to mention unless he is specifically questioned and asked to take a deep breath. The pain may last hours or weeks with varying intensity.

The laboratory examination in Dressler's syndrome often shows a leukocytosis from 10,000 to 20,000 WBCs per cubic millimeter, with an increase in polymorphonuclear leukocytes; in contrast to the short-lived leukocytosis seen in myocardial infarction, this leukocytosis may last for weeks. There is also an increased sedimentation rate and a protracted course, which may be associated with anemia; this is the probable explanation for the anemia in this case. Of note, is the fact that Dressler[6] observed eosinophilia in one fifth of his cases, which lends some support to consideration of an allergic etiologic element. There is a 1974 case report of eosinophilic (Loeffler's) endocarditis complicating acute MI,[7] and perhaps there is some kind of overlap between Loeffler's and Dressler's syndromes. The cultures in Dressler's syndrome are always bacteria-negative, including cultures of the blood, pericardial, and pleural effusions when they have been taken; and the collagen vascular disease work-ups usually reveal no abnormalities.

In considering pericarditis in Dressler's syndrome, pericardial rub is generally found in 80 percent of patients; instead of being evanescent, it generally remains audible for 7 to 10 days. Fibrinous pericarditis is not uncommon with acute MI, but pericardial effusion is rare. In the cases studied by Dressler,[6] almost half had pericardial effusion of sufficient degree to be diagnosed by x-ray film. When the pericardium was aspirated, at times straw-colored and at other times hemorrhagic fluid was obtained even in the absence of anticoagulation therapy.

In regard to pleuritis, in Dressler's[6] initial study 68 percent showed signs of pleural effusion (unilateral in 8, bilateral in 16). The effusions were usually small; however, in some there was a marked amount of fluid requiring repeated pleurocentesis. Serous exudate was found in half, and intensely bloody fluid in the other half. There is not much information about the cell count, although in 1973, Erozan, and Ball[8] described three cases of Dressler's syndrome; two had predominantly polymorphonuclear cells, and one had a predominant mononuclear count.

Pneumonitis is certainly less common than are pericarditis and pleuritis, and was seen in only 28 percent of Dressler's[6] initial series. In a few cases there was associated hemoptysis. Generally there is no response to antibiotics, although there may be a response to steroids.

In considering the course of Dressler's syndrome, it is often difficult to determine the onset of manifestations because the increase in temperature may coincide with fever caused by the acute infarction. Although Dressler's syndrome is publicized as a late complication of MI, there are many indications that point to early development of the syndrome. A pericardial rub appeared in the first week in more than one half of Dressler's[6] initial series. Similarly, pleuropericardial pain often developed in the first week, indeed as early as a day or two postinfarction. The initial febrile period lasted longer than in uncomplicated MI; also, the temperature elevations were higher.

The signs of pneumonitis appear in a few patients as early as the third or fourth day. Each episode of chest pain and fever lasts for a week or two, and in exceptional cases, from three to six weeks. Recurrences are common; in only 9 of Dressler's[6] initial 44 patients was the illness limited to a single bout. Most patients had two or three episodes, although 10 patients had from four to seven episodes. Between flare-ups, the patient is usually afebrile, but elevated sedimentation rate and leukocytosis may persist. The duration of illness varies with the number of recurrences, with some episodes occurring as late as two years post-MI. The prognosis with Dressler's syndrome is usually benign, with most reported deaths secondary to anticoagulation therapy.

The cause of Dressler's syndrome is not well defined, although an autoimmune mechanism has been suggested. Among 257 survivors of intrapericardial surgery, 66 cases of postpericardiectomy syndrome (a syndrome similar to Dressler's) were seen. Patients without AHA (antiheart antibodies) had no evidence of postpericardiectomy syndrome.[9] It is postulated that in Dressler's syndrome, antigens produced by myocardial necrosis lead to the formation of autoantibodies in susceptible persons, which cause the syndrome. The evidence for an autoimmune mechanism includes the following: (1) a latent period, (2) clinical manifestations similar to autoimmune disease, (3) response to steroids, and (4) finding of circulating AHA in serum and pericardial fluid. Generally, antibodies appear before or during development of clinical symptoms and usually become bacteria-negative in association with clinical recovery or during quiescent intervals. Against the autoimmune theory is the fact that AHA are seen in up to 50 percent of patients with acute MI who do not develop Dressler's syndrome. Perhaps these individuals have subclinical cases.

Other investigators have suggested that cardiac surgery and MI could provide the stimulus for establishment or reactivation of a latent or dormant viral syndrome.[10] Viruses can be dormant for years, later giving rise to symptoms, such as herpes zoster or herpes labialis. A study by Engle et al. in 1975[11] showed that 70 percent of a group with positive AHA and with clinical postpericardiotomy syndrome had a fourfold or greater rise in antiviral antibodies; only 6 percent of those with negative AHA had such a rise. However, no single agent was implicated. Against this etiology are many case reports of negative viral studies in post-MI syndrome. Findings of coxsackie and CMV (cytomegalovirus) cultures, and complement fixation tests for mycoplasma, influenza, mumps, herpes, varicella zoster, and CMV have been negative in many studies. Thus, at this point, the cause of the Dressler's syndrome is still unknown.

Part II. The next aspect of this case to discuss is the presence of V waves. The V wave is virtually diagnostic of acute mitral insufficiency. There are two factors that determine transmission of a V wave.

One factor is distensibility of the left atrium. With chronic mitral regurgitation, the progression of the disease is slow and deliberate. The left atrium distends gradually, becoming thin walled and capable of accepting a large volume of regurgitant flow without a dramatic increase in pressure. This is in contrast to acute mitral regurgitation, where there is a sudden onset of regurgitant flow and a marked increase in pressure. Thus, the left atrium acts as a poorly distensible reservoir and there is retrograde transmission of the V wave.[12]

The second important factor is pulmonary vascular resistance. When the left atrial pressure is chronically elevated the pulmonary vascular resistance is sometimes extremely high, and the large V waves do not transmit to the pulmonary artery. Thus the presence of a V wave is diagnostic of acute mitral regurgitation. The sudden onset of an apical systolic murmur after an MI in this patient is more likely due to papillary muscle dysfunction than to rupture of a papillary muscle or perforation of the septum. It would be unusual if the acute mitral regurgitation in this case were due to papillary muscle rupture, since this patient did not have a rapid onset of left ventricular failure.

The papillary muscles, being subendocardial structures, have a terminal coronary artery circulation and are therefore particularly vulnerable to ischemia. It should be pointed out that during ventricular ejection, tension decreases in the free wall of the left ventricle while papillary muscle tension must be maintained, and even increased. Thus the oxygen requirement of papillary muscle is probably greater than that of any other unit volume of myocardium. Evidence of vulnerability to ischemic damage is demonstrated by the fact that either one or both papillary muscles in the left ventricle frequently shows evidence of recent or old infarction when studied at autopsy. Ischemia classically produces acute papillary muscle dysfunction during an attack of angina pectoris or during prolonged episodes of coronary insufficiency. Phillips, Burch, and DePasquale[13] noted the intermittent nature of this condition, as reflected by an apical systolic murmur during angina, with disappearance of the murmur as the anginal attack abated.

The mitral valve apparatus consists of (1) the mitral valve annulus, (2) the valve leaflets, and (3) the chordae tendineae and papillary muscles. There are two groups of papillary muscles, the anterolateral and the posteromedial. At the end of ventricular diastole the mitral leaflets, which were retracted into the left ventricle cavity early in diastole, begin to move upward toward the left atrium to come into apposition. With the onset of isovolumetric contraction, two opposing forces act on the mitral leaflets: (1) centrifugal force of intraventricular pressure, and (2) the centripetal force of papillary muscle tension. Failure to maintain the chordae tendineae taut because of papillary muscle dysfunction allows a portion of the leaflet to evert into the left atrium during ventricular ejection, and the valve becomes incompetent.

Part III. Finally, one must consider the development of ARDS in this patient. ARDS is best defined as a clinical syndrome and generally has three characteristics: (1) it is usually found in association with a serious illness that requires hospitalization but often does not involve the lungs initially, (2) there is often a latent period during which respiratory involvement is minimal or absent, and (3) after the latent period, acute respiratory failure, that may progress relentlessly and cause the patient's death, develops. The patients have marked dyspnea accompanying severe hypoxemia, and diffuse pulmonary infiltration on chest x-ray films. They may fail to respond to conventional mechanical ventilation and may have markedly reduced lung compliance and profound oxygen transport problems.[14]

A major consequence of diffuse injury to the lung parenchyma is increased permeability of the capillary endothelium with resulting edema of the interstitial and alveolar spaces. Proteinaceous material and cellular debris fill alveoli. The lung becomes much stiffer, that is, compliance falls. The pathologic findings of those who die with ARDS often reveal heavy, airless lungs, congestion and hyperemia, hyaline membranes, and eventually fibrosis.

In addition to the ARDS, we must consider two other possibilities in this patient. One possibility is oxygen toxicity, which by unknown mechanisms may damage pulmonary cells. It is possible that free radicals may play a role, with hydrogen peroxide and lipid peroxide suggested as harmful intermediates of oxygen metabolism. Levels of oxygen greater than 60 percent should be considered toxic for normal lungs; in the injured lung, lower levels of oxygen may be dangerous. However, this patient was really not on high concentrations of oxygen. Another possibility is salicylate toxicity, which is believed to cause capillary damage and increase permeability, resulting in pulmonary edema. There are some reports of

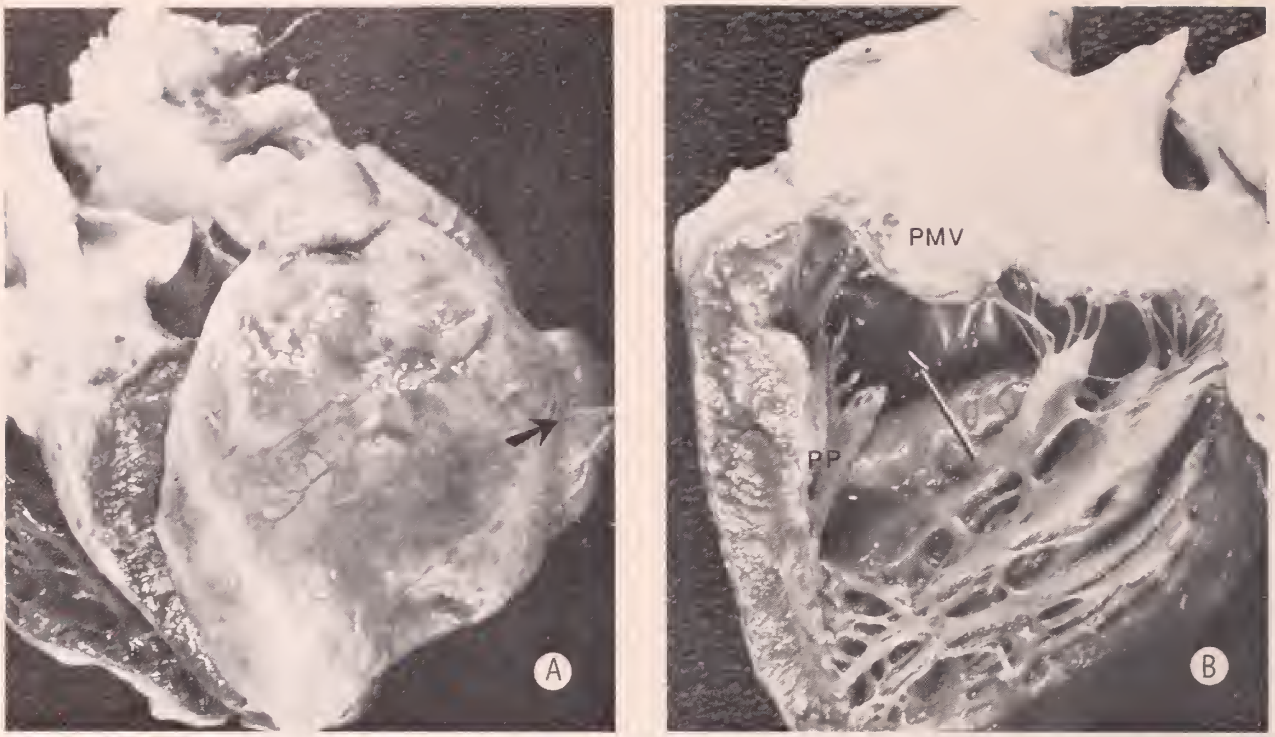

FIGURE 1. (A) Partially opened heart reveals marked distortion of posterior-basal free wall by a thin-walled ventricular aneurysm (arrow). Epicardial surface covered by fibrous tissue and organizing fibrinous exudate. (B) Opened heart demonstrates large aneurysm (arrow) beneath posterior leaflet of mitral valve (PMV). Chordae tendineae have been cut to show aneurysm. Posterior group of papillary muscles (PP) markedly atrophic secondary to previous MI.

salicylate-induced pulmonary damage,[15] with levels similar to those seen in rheumatoid arthritis or rheumatic fever. Generally the wedge pressures have been normal or low when measured. In the present case, the patient was off salicylates through most of his course when he was treated with steroids.

The explanation for the ARDS in this case appears to be the post-MI syndrome. Of note was an article by Geever, Neubuerger, and Rutledge[16] describing atypical pulmonary inflammatory reactions. At postmortem they found atypical pulmonary infiltrates and hyaline membranes in the lungs. In their series there was a high proportion of patients with cardiovascular disease and MI. There was also a case report by Dressler, Yurkofsky, and Starr in 1957,[17] in which they described progressive pulmonary infiltration and hemoptysis which responded to steroids. The pulmonary process lasted four weeks. Finally, in a report by Weiser, Kantor, and Russell,[18] one case showed diffuse and progressive bilateral pulmonary infiltrates and hemoptysis following MI. The patient was treated for pulmonary embolism; however, the autopsy findings revealed hyaline membranes and changes resembling atypical or viral pneumonia.

Thus, the final diagnosis is a myocardial infarction of the posterior lateral wall with two major complications. One complication was a papillary muscle dysfunction secondary to an infarction of the posteromedial papillary muscle. The second complication was the post-MI syndrome, accounting for progressive pulmonary infiltrates and ARDS. However, his demise may have been due to pulmonary embolism, since the lack of response to steroids is surprising. The other cardiac lesion that will be probably found is a ventricular aneurysm. In the literature of the 13 reported deaths with Dressler's syndrome, 10 had ventricular aneurysms.[19]

Pathology discussion

Dr. Factor: The gross appearance of the heart revealed marked cardiac enlargement and some distortion of the normal cardiac silhouette. There was a bulge in the posterior basal portion of the myocardium reflecting the presence of an aneurysm (Fig. 1A). In addition, the pericardium demonstrated diffuse fibrosis and a fibrinous exudate. On opening the heart, the septum was relatively normal; however, there was thinning and depression beneath the posterior leaflet of the mitral valve, and attenuation of the posterior papillary muscle, which showed obvious evidence of recent infarction (Fig. 1B). The appearance of the papillary muscle and of the underlying ventricular wall provided sufficient explanation for this patient's mitral insufficiency. Microscopically, sections of the ventricular aneurysm revealed considerable fibrosis with some scattered residual muscle fibers. Sections of the papillary

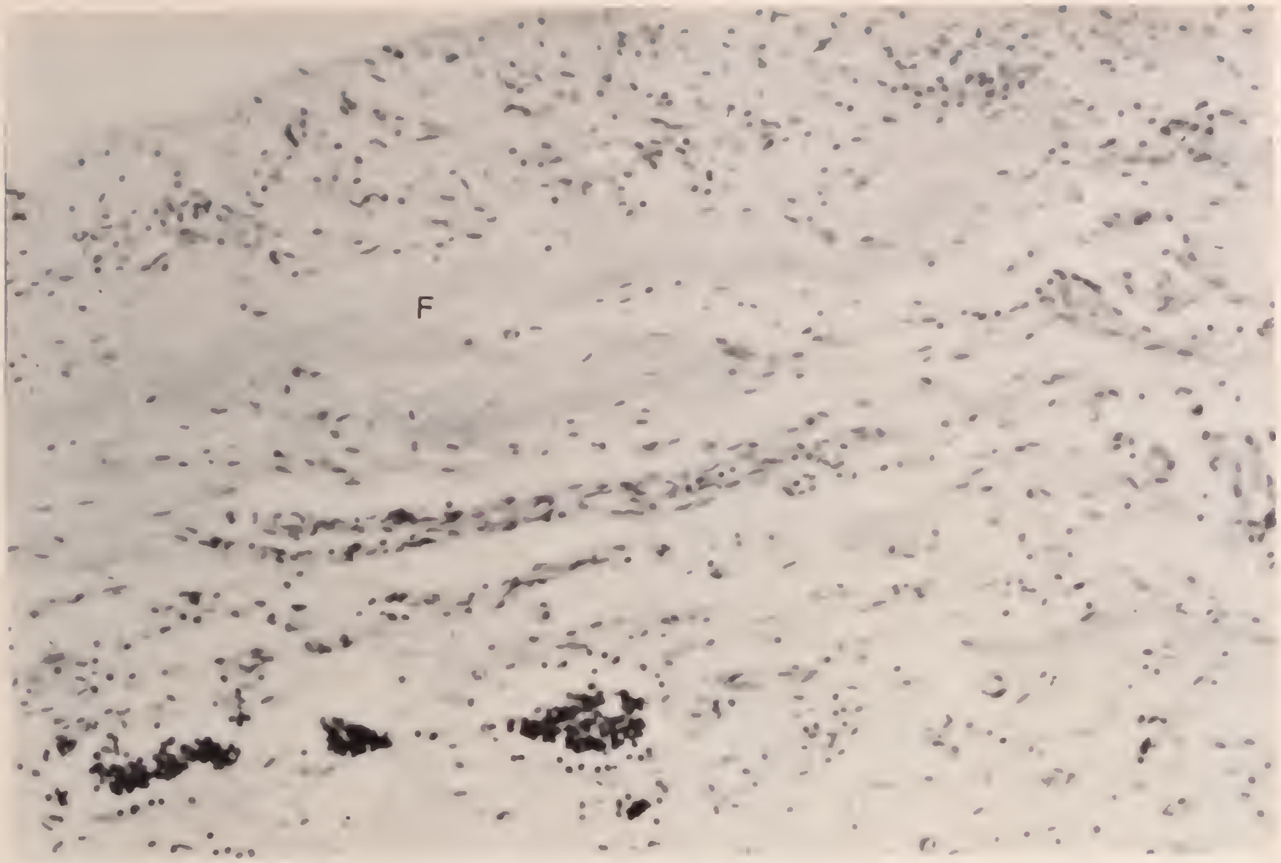

FIGURE 2. Representative area of epicardium reveals extensive granulation tissue, compact fibrin (F), and numerous mononuclear inflammatory cells. Clumped lymphocytes present within lymphatic vessels in lower portion of field (hematoxylin and eosin stain, original magnification X 250).

muscle also revealed extensive organizing fibrosis and, in addition, multiple zones of mummified muscle which had yet to undergo organization. The histologic age of this infarction was consistent with this patient's clinical course.

In several scattered foci throughout the subendocardium there were areas of acute myocytolysis, which were probably related to terminal shock; these changes likely played very little role in this patient's clinical presentation. Sections of the coronary arteries revealed that the distal left circumflex coronary artery was completely obstructed by an atherosclerotic lesion, and, in addition, an organizing thrombus of at least several weeks' age was present in the proximal vessel. In summary, examination of the heart revealed changes consistent with a transmural MI at least one month old, and alterations consistent with papillary and posterior ventricular-wall muscle dysfunction accounting for mitral insufficiency.

The presence of a ventricular aneurysm is very interesting in retrospect, because many of the patients described with Dressler's syndrome have had this condition;[19] this probably reflects the common association of Dressler's syndrome with transmural infarction. Turning to the diagnosis of Dressler's syndrome, which I am sure every one here realizes this case represents, we observed that the pericardium had diffuse organizing fibrinous pericarditis. The presence of diffuse disease tends to rule out the association of contiguous pericarditis associated with an underlying transmural infarction. This is usually a localized condition which probably represents direct irritation of the epi- and pericardium by the necrotic subjacent tissue. In contrast, this patient had extensive pericarditis with histologically evident fibrin and early fibrous organization. The epicardium had a similar change, and, in addition, had numerous chronic inflammatory cells (Fig. 2). These inflammatory cells seemed to be more numerous than those usually seen with the relatively bland type of pericarditis associated with infarction. Sections of the left atrium also revealed a focus of obvious myocarditis, with interstitial chronic mononuclear inflammatory cells and some disruption and necrosis of myocardial fibers. This appearance is noteworthy, in that if we had no other history, it might suggest the possibility of a viral myocarditis. Viruses have been implicated in the pathogenesis of the Dressler's syndrome.

Turning now to the lungs, there was diffuse disease typified by hemorrhage and consolidation, with absence of the normal pulmonary architecture (Fig. 3). Numerous pulmonary thromboemboli were present in the large and smaller branches of the pulmonary

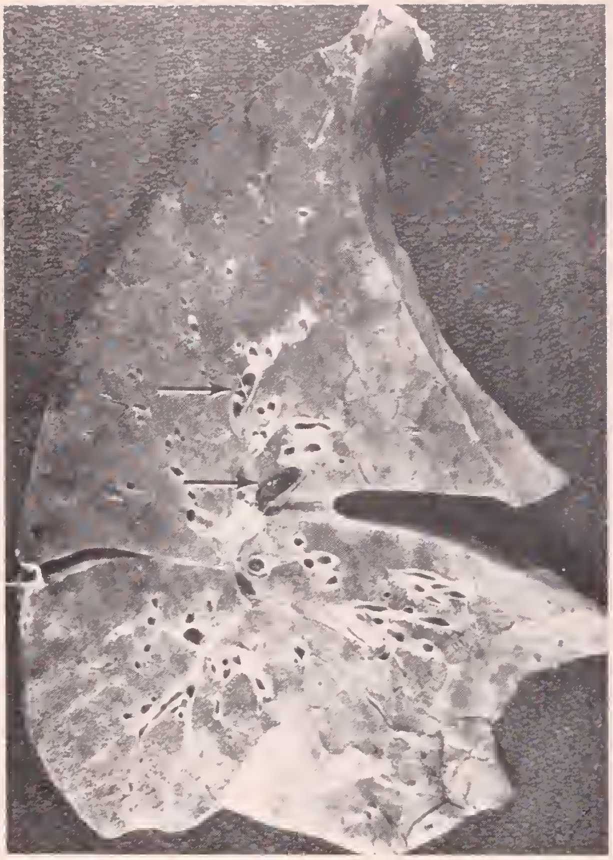

FIGURE 3. Cut surface of right lung shows almost complete homogeneous consolidation of pulmonary parenchyma, with preservation of only small area near base. Several thromboemboli present in large branches of pulmonary artery (arrows). Note areas of intraparenchymal hemorrhage (darker tissue) just beneath pleural surface of upper lobe.

arterial tree. It is unlikely that the pulmonary emboli were the cause of this patient's pulmonary disease, since the appearance of the lungs was inconsistent with changes solely associated with pulmonary embolism. Histologic sections revealed that many of the emboli were acute as well as organizing, so that most probably this patient had been embolizing during his entire hospital course. The lungs had a rather homogeneous apperance, with markedly thickened alveolar septa, numerous chronic inflammatory cells, adherent dense hyaline membranes, and extensive intra-alveolar and intrabronchial hemorrhage (Fig. 4A). Several foci within the lungs also had acute bronchopneumonia with polymorphonculear leukocytes, although no bacteria could be demonstrated. Finally, special stains revealed that many of the areas of pneumonitis were undergoing organization, with increased collagen noted along the alveolar walls.

The appearance of the lungs is consistent with what is called ARDS clinically, and what we term fibrosing alveolitis or adult hyaline membrane disease pathologically. It is necessary to point out that this appearance of hyaline membranes, interstitial and intra-alveolar mononuclear inflammation, and hemorrhage is not specific for any one disease. There are a multitude of conditions that can lead to the same pathologic picture, among them, oxygen toxicity, shock, cerebral trauma, and viral infection. The question in this case is whether or not this appearance is consistent with Dressler's syndrome. The histology findings are totally inconsistent with that found in severe congestive failure. Although proteinaceous exudates may be present, lining the alveolar walls in pulmonary edema, the presence of extensive hyaline membranes and inflammation of this sort is not found (Fig. 4B). As I mentioned before, although this patient had pulmonary emboli, this appearance is also not that of pulmonary infarction or even incipient infarction. Oxygen toxicity may have had an additive role terminally, but it cannot explain the initiation of the process, since radiographically his pulmonary disease antedated treatment with high oxygen tensions.

The association of this pulmonary disease with Dressler's syndrome is partially one of exclusion. However, there are cases reported in the literature that have an identical appearance. As already pointed out, in the article by Geever, Neubuerger, and Rutledge,[16] the description of what they termed atypical pneumonia in three patients with previous MI was identical to what we found in this case. Dressler,[6] in one of his initial studies, considered the cases reported by Geever, Neubuerger, and Rutledge[16] to be examples of the pulmonary involvement associated with the post-MI syndrome. Despite the frequent occurrence of pulmonary disease in Dressler's syndrome,[6] most patients survive, so that extensive histologic studies have not been performed. Most cases consist of focal patchy infiltrates on chest x-ray film rather than a diffuse "white-out" as this patient demonstrated. However, in Dressler, Yurkofsky, and Starr's[17] third case described in 1957, they showed a picture identical to that seen in the case presented here.

The pathogenesis of the pneumonitis in the ARDS is considered to be direct noxious damage to the alveolar wall and the capillary endothelium, allowing for the passage of high protein fluid and fibrin into the alveolar space, along with RBCs.[20,21] This elicits a chronic inflammatory reaction and subsequent fibrosis. Whether Dressler's syndrome is secondary to the activation of a new or latent viral infection, or the presence of antigen-antibody complexes possibly related to the necrosis of the myocardium, is uncertain. However, if it is induced by a virus, the pulmonary changes seen here are entirely consistent with a viral pneumonitis. Furthermore, it is conceivable that antigen-antibody complexes may also damage the alveolar walls leading to a similar appearance.

Therefore, we feel very confident that this case is an example of a rather unusual form of Dressler's syndrome leading to pulmonary death. The diagnosis of Dressler's syndrome involving the heart is

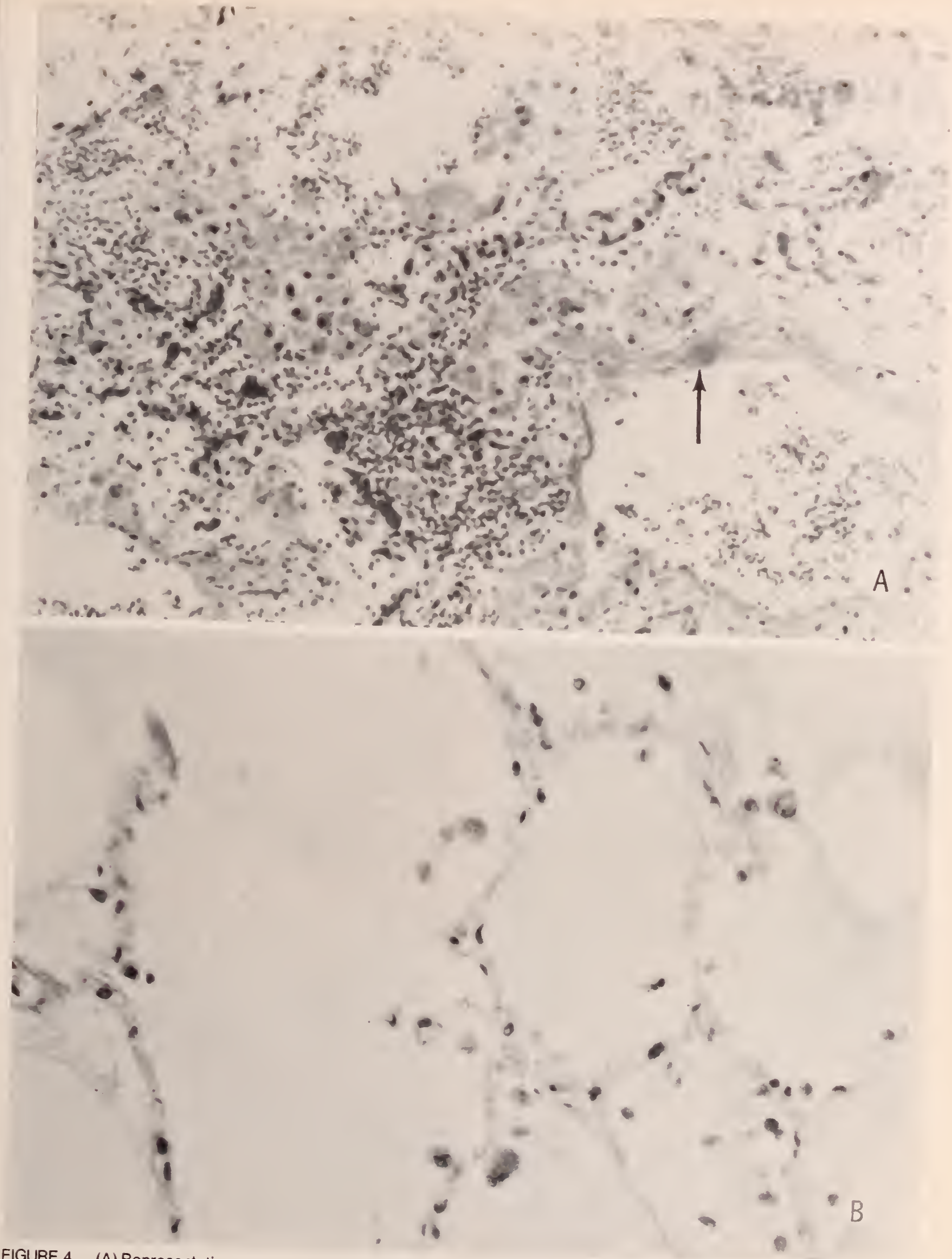

FIGURE 4. (A) Representative area of lung demonstrating characteristic features of ARDS. Note compact fibrinous hyaline membrane (arrow) plastered against alveolar septum, extensive intra-alveolar hemorrhage, and large number of mononculear inflammatory cells within alveolar spaces and septa. For comparison with typical pulmonary edema, see Figure 4B. (B) Section of lung from case of cardiogenic pulmonary edema, provides striking comparison with interstitial and intra-alveolar alterations in present case. Alveolar spaces filled with proteinaceous edema fluid; however there are no hyaline membranes, no hemorrhage, and only minimal inflammation. Alveolar septa thin and relatively normal. (Hematoxylin and Eosin Stain, original magnification X 250)

straightforward in terms of the time course, pericarditis, association with the ventricular aneurysm, and the cellular infiltrates in both the heart and pericardium. The pulmonary alterations, both radiologically and pathologically, are also consistent with the diagnosis of Dressler's syndrome, although admittedly this is not a common form of the disease.

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Fly eggs cause painful infections of skin

That annoying skin infection that won't heal just might turn out to be a case of cutaneous myiasis.

Travelers returning from Africa and other tropical zones sometimes are bothered with swellings and bumps on the skin that do not clear up with conventional treatment. The tropical medicine specialist will sometimes find that the problem is caused by a larva of one of a variety of flies called Diptera.

The fly deposits an egg beneath the skin. The egg hatches into a larva, or tiny worm. This causes the skin problem, and it won't heal until the larva is removed, says Noel Guillozet, M.D., of Peoria, Ill. The problem is called cutaneous myiasis.

In the August 15 Journal of the American Medical Association, Dr. Guillozet reports on three cases of skin problems caused by the fly larvae. These were returning travelers, but the infestation also can be found in North America, he says.

Travelers to tropical regions are usually cautious about the possibility of malaria and the hazards of contaminated water and food. And now they also are cautioned to watch our for flies.

Fly maggot infestations have been found in humans in the eye, ear, nose, tongue, rectum, vagina, and in open wounds. Exposed areas of the body are at major risk. The fly's eggs are deposited on the victim's skin, where they are incubated by body heat. The slowly maturing larvae produce an elevated and often painful single lesion.

In North America Diptera flies usually attack cattle, dogs, cats, and other small animals, such as mink. Cases have been reported in children in North Dakota, Michigan, and New Hampshire, Dr. Guillozet says.

In Africa the fly often lays its eggs on cool, shady beaches, where bathers may be infected. More commonly, it lays its eggs in clothes left to dry out of doors. When the clothes are worn, the eggs incubate, hatch, and burrow into the skin.

He concludes:

"Often a disease of travelers from tropical zones, it occurs sufficiently often in temperate zones that it should be readily considered in any skin lesion that fails to rapidly resolve with usual care."

Spontaneous Flail Chest in Multiple Myeloma

Successful recovery

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Flail chest, which is usually due to trauma, can also be the result of pathologic weakening of the thoracic cage without trauma.

Spontaneous flail chest due to fracture of the sternum in multiple myeloma is rare, and no long-term survivors have been reported. We recently treated a patient who presented himself with a fractured sternum and flail chest due to multiple myeloma and who recovered after chemotherapy and ventilatory support. We report this case to illustrate that it is possible to achieve complete functional recovery from pathologic fracture of the sternum with a flail chest.

Case report

A 43-year-old male was admitted to Booth Memorial Medical Center on June 16, 1977, complaining of chest pain, fever, and cough. Six months prior to admission he sustained injury to his back after a fall, and since then he had been having back pain intermittently. Radiographs of the spine did not reveal any fracture or lesions.

Physical examination revealed a tachypneic male with respiratory rate of 30 per minute, temperature 39°C., blood pressure 160/60 mm. Hg, and pulse rate 120 per minute. There was mild sternal tenderness. Auscultation of the chest revealed rhonchi bilaterally. Admission chest radiograph showed a left lower lobe infiltrate. The hematocrit was 20 and white blood cell count 8,600 per cubic millimeter. Serum chemistry showed calcium 12 mg., blood urea nitrogen 53 mg., total protein 9.2 Gm., albumin 4.2 Gm., and creatinine 8 mg. per deciliter. Bone-marrow aspiration confirmed the diagnosis of multiple myeloma.

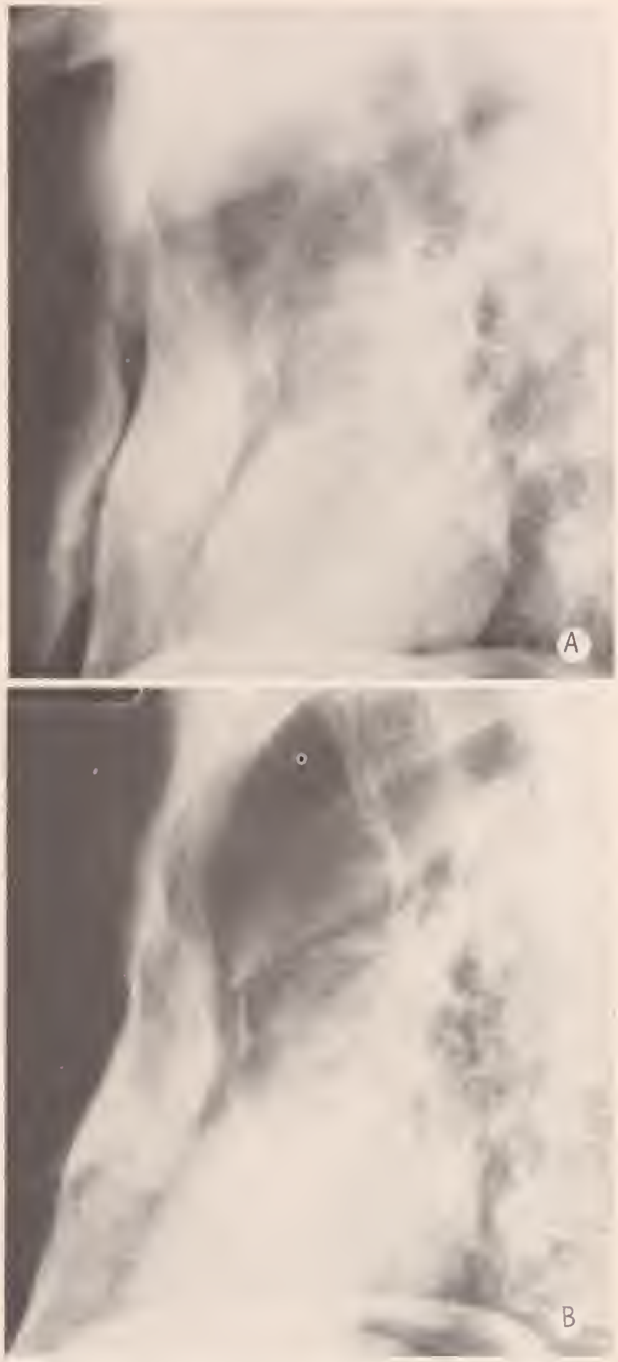

FIGURE 1. Lateral view of chest. (A) Fracture of sternum. (B) Healed fracture of sternum with callous formation.

Serum electrophoresis showed a gamma spike with Ig (immunoglobulin)A 2,500 mg. per deciliter. Therapy was begun with antibiotics, prednisone, and melphalan. Four days later he developed vomiting and singultus which lasted 24 hours. Eleven days after admission labored respiration was noted with severe pain and flailing of his chest, predominantly the sternum. Arterial blood gases showed oxygen pressure 120 mm., carbon dioxide pressure 24 mm., and pH 7.41 on 40 percent oxygen mask. Results of chest radiograph revealed fracture of the body of the sternum (Fig. 1A). Even though he was ventilating adequately, because of his severe respiratory distress and marked flailing of the chest he was placed on an MA-1 respirator. Chemotherapy for his myeloma and treatment for several distinct episodes of pulmonary infection was continued. After 39 days he was removed from the respirator with a lesser degree of flail and minimal respiratory distress. Serial chest radiographs showed fractures of left sixth and right ninth ribs. There was also gradual healing of the deformed sternal fracture with callous formation and significant residual pectus excavatum (Fig. 1B). During this course of therapy his serum IgG fell to 760 mg. per deciliter. He had remained asymptomatic on chemotherapy with improved renal function when last seen in December, 1980.

Comment

Multiple myeloma is known to cause chest cage lesions frequently involving the ribs. Flail chest due to fracture of the sternum is unusual. Plasmacytoma of the sternum rarely results in fracture. Other causes of sternal fracture include trauma, metastases from thyroid, breast, kidney, lung neoplasms, and from lymphoma.[1] The most common site of fracture is the body of the sternum.

The management of flail chest includes tracheal intubation, mechanical ventilation, and frequent suctioning until the chest wall is stabilized. There is a paucity of literature regarding management of sternal fracture with flail chest except in cases of trauma. Surgical intervention has been described to fix the sternum with hooks.[2] This approach is not possible in multiple myeloma because of myelomatous deposition which weakens the body of the sternum. Sternal reconstruction using bone grafts and fascia lata has been described in a case of localized plasmacytoma.[3]

Law and Jones[4] reported a case of a patient with myeloma and a sternal fracture who died soon after the onset of renal failure despite chemotherapy. Spontaneous flail chest in multiple myeloma has been described in a patient in whom it was decided not to provide artificial respiration, despite ventilatory failure, because it was "doubted whether his ribs would ever heal satisfactorily and because of the diffuse malignant nature of the disease."[5] A 74-year-old woman with multiple myeloma sustained a fracture of the sternum without flail chest after she performed cardiac massage on herself for a "heart attack."[6]

In our patient, vomiting and coughing might have predisposed to fracture of the sternum which had been already weakened by diffuse myeloma. He was placed on a volume respirator to assist his breathing, thereby enhancing the stability of the chest cage. He achieved enough structural stability within six weeks of therapy to breathe without severe distress although there was minimal flail noted even at that time.

Rodriguez et al.[7] noted in patients responsive to melphalan that biochemical remissions were seen within one month. Bone healing was documented as recalcification of lytic lesions of the skull as early as three months after initiation of chemotherapy. It is reasonable to assume that increased structural stability is achieved after biochemical remission and prior to recalcification noted in the radiographs. Thus the development of increased chest wall stability in our patient after six weeks of therapy is according to the experience of previous authors.

We are unaware of a similar report in the literature with successful recovery and long survival from a flail chest due to myeloma.

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Null-Cell Leukemia in Course of T-Cell Lymphoma

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The NHL (non-Hodgkin lymphomas) are cancers of the immune system originating mostly from B lymphocytes.[1,2] The only exceptions to this observed immune characterization occur in the diffuse architectural types where T-cell markers and rarely no markers (non-T, non-B cells, or null cells) are found.[3] In the DPDL (diffuse poorly differentiated lymphocytic) lymphomas, in the subtype lymphoblastic, T-cell markers are found in lymph nodes and in peripheral blood during the course of leukemic transformation.[4,5] We have recently seen two such patients who were found to have DPDL lymphomas with features of lymphoblastic lymphoma whose leukemic cells lacked surface immune markers and were of the null-cell type. These patients are presented.

Case reports

Case 1. A 55-year-old white female dental technician was found on routine chest x-ray examination to have a right posterior mediastinal mass. In the next three months, minimal but definite enlargement was seen and she was admitted to the Albert Einstein College Hospital in June, 1975. At that time, findings on a comprehensive physical examination were normal, and a CBC (complete blood count) showed hemoglobin 12.9 Gm. per 100 ml., hematocrit 37, and WBC (white blood cell count) 8,400 per cubic millimeter with 66 percent polymorphonuclear leukocytes, 27 percent lymphocytes, 4 percent monocytes, and 3 percent eosinophils. Findings on red blood cell morphology and platelet number were normal on smear. Results of sequential multiple analyzer-16 chemistries, bone marrow aspirate and biopsy, and liver-spleen scan (technetium sulfur colloid) were all normal. A thoracotomy was performed, and a posterior mediastinal mass was excised; this mass was diagnosed as DPDL lymphoma, with cells with prominent nucleoli and basophilic cytoplasm. Radiotherapy was given through September, 1975: 3,600 rads to the mediastinum and 5,000 rads to the right supraclavicular area, in 20 fractions. Aside from a wound infection at the thoracotomy site beneath the right breast, she was asymptomatic until July, 1977, when she developed gross hematuria.

She was readmitted to the hospital, and results of a biopsy of the bladder tumor found at cystoscopy showed submucosal infiltration by lymphoma cells identical with those seen in the mediastinal mass two years earlier (Fig. 1). At this time, findings on physical examination showed the spleen edge palpable 1 to 2 cm. below the costal margin. CBC showed hemoglobin 12 Gm. per 100 ml., hematocrit 35, WBC 25,600 per cubic millimeter, with 68 percent lymphoblastic forms, and platelets 120,000 per cubic millimeter. Findings on bone marrow aspirate and biopsy confirmed the diagnosis of leukemia (Fig. 1). Results of gallium scanning showed increased uptake in the pelvis, para-aortic nodes, and mediastinum. Treatment with CHOP (cyclophosphamide, doxorubicin hydrochloride (Adriamycin), vincristine, and prednisone) in three-week cycles for nine doses was given, with virtually no change in the blood counts except for moderate thrombocytopenia and, toward the end of the six-months' treatment period, progressive leukocytosis.

She was admitted again to the hospital in May, 1978, and surface immune marker studies were performed at a time when the CBC included hemoglobin 11.4 Gm. per 100 ml., hematocrit 35, WBC 102,000 per cubic millimeter, with 92 percent blasts, and platelets 28,000 per cubic millimeter (Table I). At this time, splenic enlargement to the umbilicus was present, but enlargement of nodes was absent. Treatment with cytosine arabinoside (100 mg. intravenously daily), asparaginase (30,000 units intravenously alternate days), and prednisone (60 mg. orally daily) was begun with platelet transfusion support. Within 10 days, the spleen was just palpable beneath the left costal margin, and WBC count had fallen to 3,700 per cubic millimeter with 40 percent blast forms. Treatment was discontinued, and within two weeks the WBC stabilized at 5,000 per cubic millimeter with 20 percent blast forms, and platelets (without support) at 50,000 to 75,000 per cubic millimeter. She was discharged to the outpatient department with maintenance on these medications given biweekly. After five months, the WBC count began to rise precipitously (from 10,000 to 178,000 per cubic millimeter) and she required a fourth hospitalization in November, 1978, for more vigorous chemotherapy with the same agents. The WBC count fell to 26,300 per cubic millimeter, but this time with a concomitant fall in platelets to 32,000 per cubic millimeter. Although she could be discharged from the hospital, she was promptly readmitted with a rising WBC count (164,000 per cubic millimeter) despite continued outpatient treatment.

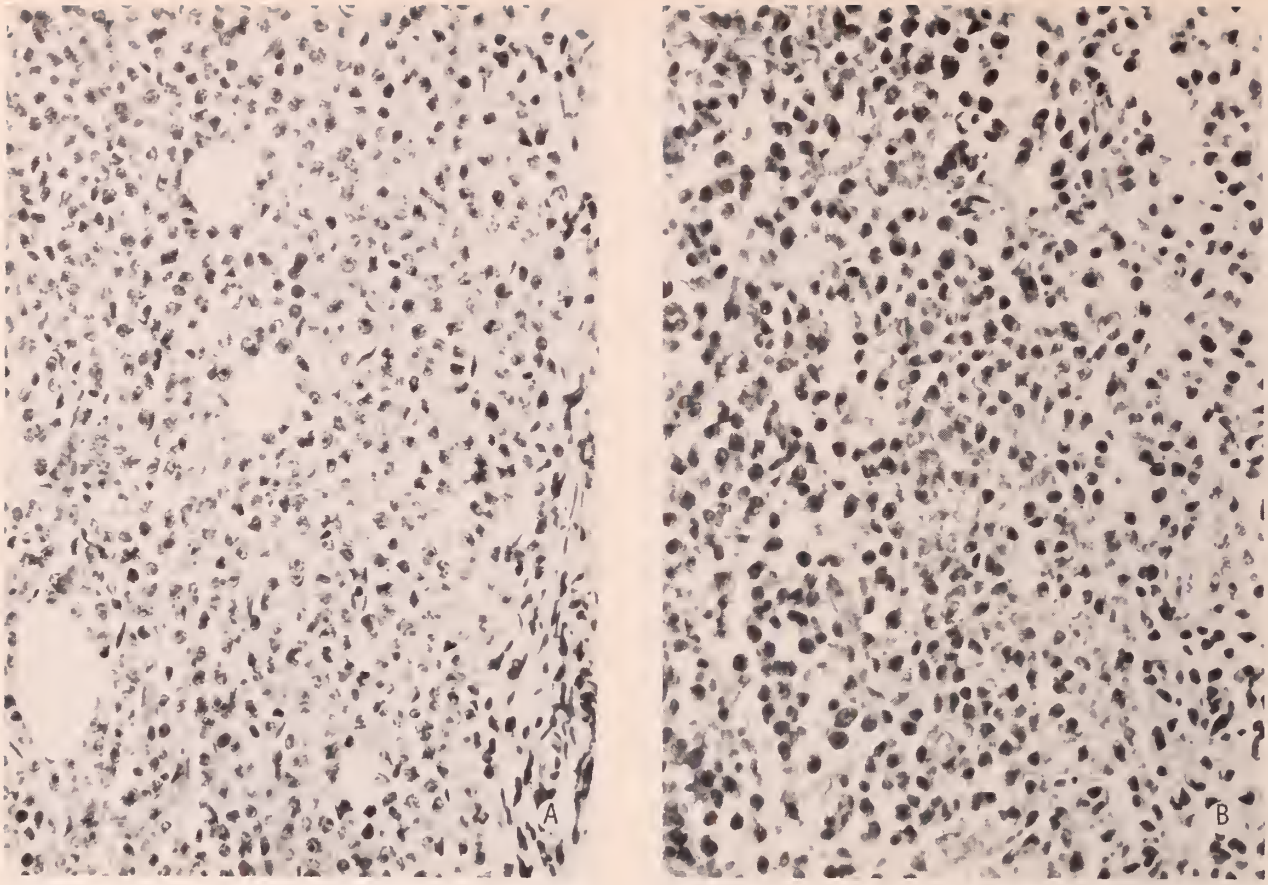

FIGURE 1. Case 1. (A) Left. Bladder biopsy showing lymphoblastic lymphoma. (B) Right. Bone marrow biopsy. (Hematoxylin and Eosin Stain, original magnification X400).

TABLE I. Surface immune markers in two patients with leukemic dissemination in the course of DPDL lymphoma; percent of cells responding

Surface Immune Markers	Case 1 (percent)		Case 2 (percent)	
	Tumor Cells	Total Lymphocytes	Tumor Cells	Total Lymphocytes
B-cell markers				
EAC_3	0	2	0	2
Fc Gamma	0	4	0	3
Fc Mu	—	—	0	4
SIg	—	—	0	1.5
T-cell markers				
E rosettes	0	4	0	4
Esterase stain	negative	—	negative	—
Mitogen response	poor	—	—	—

Key: EAC_3 complement receptors; Fc Gamma, Fc portion of IgG molecule receptors; Fc Mu, Fc portion of IgM molecule receptors; SIg, surface immune globulins; E rosettes, rosette formation with sheep erythrocytes. Mitogens included phytohemaglutinin, concanavalin A, and pokeweed mitogen; —, not determined.

Fever with pulmonary infiltration occurred, and despite intensive antibiotic therapy and supportive care, she died on December 15, 1978. A postmortem examination was not performed.

Case 2. A 44-year-old white female housewife was referred to the Albert Einstein College Hospital in August, 1978. One month earlier, she had been admitted to another hospital because of the abrupt onset of midabdominal cramping pain for which an exploratory laparotomy had been required, with the finding of a DPDL lymphoma in the retroperitoneum. The description of the nodal architecture indicated complete effacement of structure and replacement by monomorphic cells, with scanty cytoplasm and hyperchromatic nuclei with prominent nucleoli. A liver biopsy and splenectomy were performed and showed no abnormality. Although her surgical convalescence was uneventful, abdominal pain persisted and worsened. On admission to the Albert Einstein College Hospital, enlargement of lymph nodes and hepatosplenomegaly were not present, but epigastric and left lower quadrant abdominal masses were palpable. The CBC showed: hemoglobin 10.9 Gm. per 100 ml., hematocrit 33, WBC 11,700 per cubic millimeter, with 62 percent polymorphonuclear leukocytes, 27 percent lymphocytes, 9 percent monocytes, 2 percent eosinophils, and platelets 435,000 per cubic millimeter. Findings on sequential multiple analyzer-16 chemistries were normal. Chest films showed a right mediastinal mass predominantly in the right paratracheal region. Ultrasound studies confirmed the presence of soft

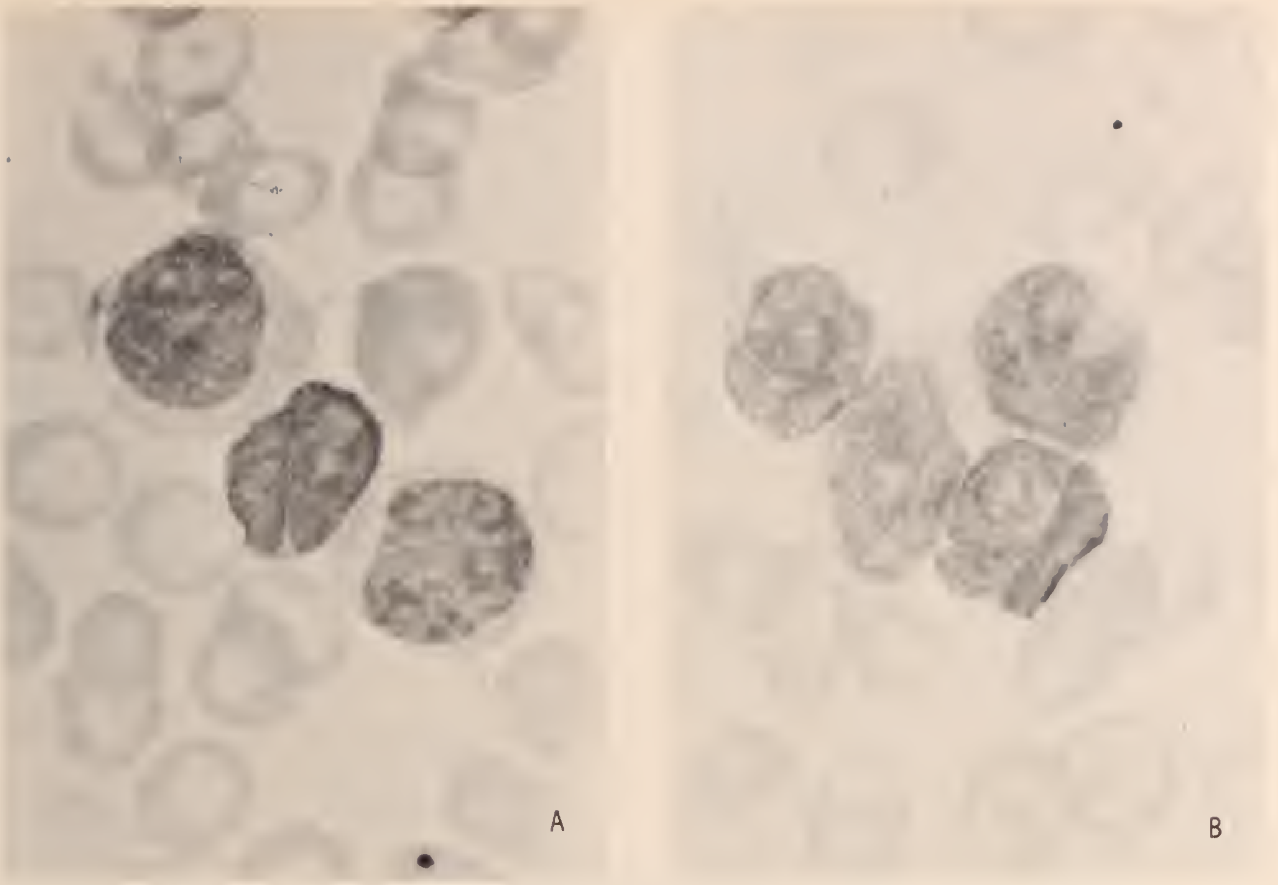

FIGURE 2. (A) Top left and (B) top right peripheral blood smears showing cleaved lymphoblasts.

tissue densities in the retroperitoneal and peripancreatic regions. Findings on bone marrow aspirate and biopsy were normal. Treatment with CHOP-bleomycin was begun with rapid improvement in symptoms, and gradual decrease, but not disappearance, in palpable abdominal masses. She was discharged to the outpatient department for treatment.

A total of four chemotherapy cycles in 12 weeks was given. Prior to the fifth cycle, glandular enlargement rapidly developed in the neck, with fever, and she was readmitted to the hospital in December, 1978. Findings on examination showed she now had generalized enlargement of nodes most prominently in the left neck, and large masses in the epigastrium and left lower quadrant of the abdomen. The CBC showed: hemoglobin 6.9 Gm. per 100 ml., hematocrit 21, WBC 137,000 per cubic millimeter, with 66 percent blast forms, and platelets 437,000 per cubic millimeter (Fig. 2). Chest films showed bilateral paratracheal and hilar enlargement of nodes with bilateral basilar infiltrates. The bone marrow was replaced by leukemic cells (Fig. 2). Surface immune markers were analyzed (Table I). Oral prednisone and intravenous cytosine arabinoside and asparaginase were begun. Transfusion (packed red cells and platelets) and broad spectrum antibiotics (for presumed pneumonia without culture-determined organisms) were given. After two weeks, the WBC count had decreased to 6,000 per cubic millimeter with 74 percent blast forms, and platelets 20,000 per cubic millimeter. The patient's physical condition, however, deteriorated during this time, and she died on January 5, 1979. A postmortem examination determined the cause of death as acute and chronic bronchopneumonia secondary to malignant lymphoma.

Characterization of surface immune markers

Peripheral blood was fractionated on a Ficoll-Hypaque density gradient. The mononuclear cells obtained were studied for surface immune markers.

T cells were detected by rosetting with sheep red-blood cells treated with sulfhydryl compound 2-amino-ethylisothiouronium bromide according to Pellegrino et al.[6] Rosettes were examined in a mixture of regular and ultraviolet light with a fluorescent microscope after staining the cell suspension with euchrysine according to Allison.[7] Using this technique, normal lymphocytes could be distinguished easily from the neoplastic cells in both patients.

The complement receptor was identified by ro-

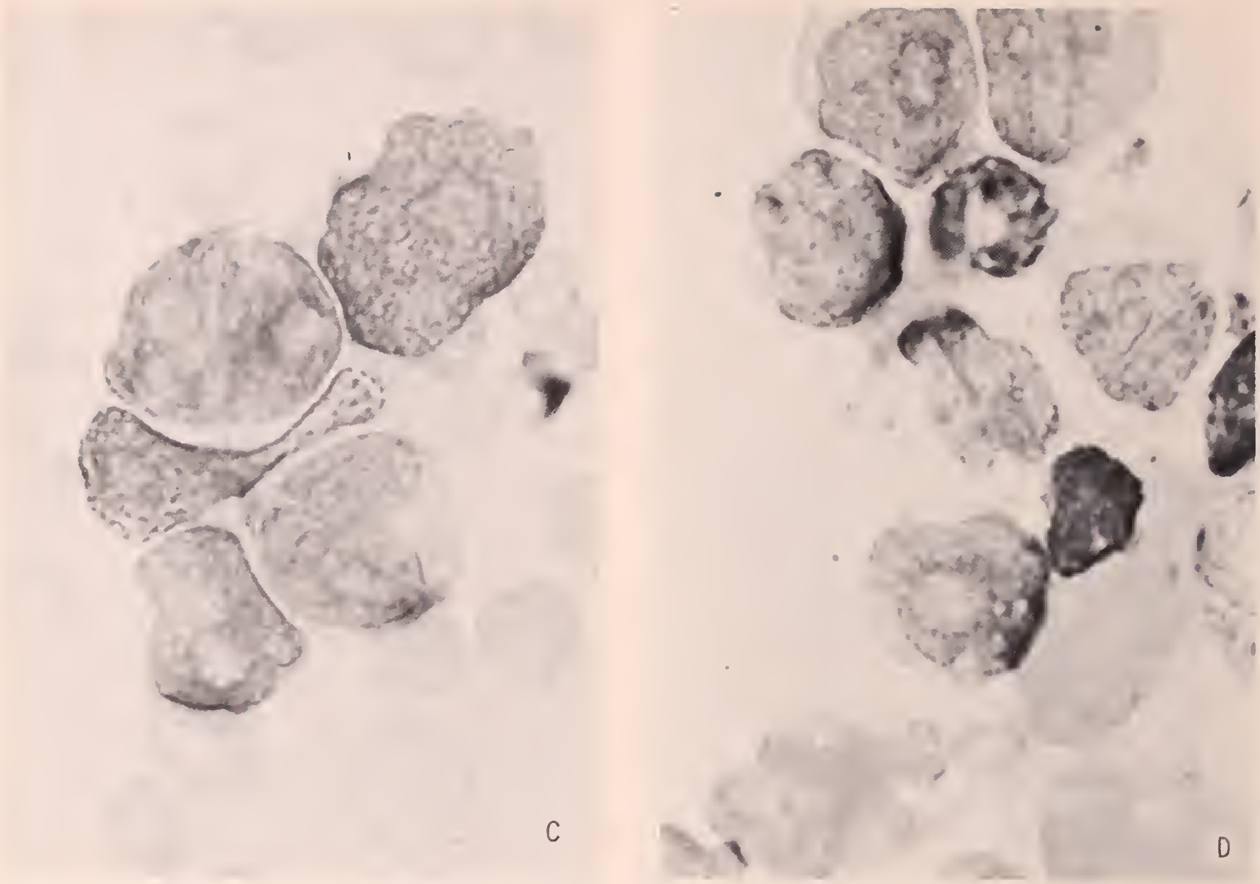

FIGURE 2. (C) Bottom left and (D) bottom right, bone marrow aspirate. (Jenner-Giemsa stain, original magnification ×1,000).

setting with sheep red-blood cells coated with Forssman rabbit antisheep blood serum and mouse complement, as modified by use, from Bianco et al.[8] Fc immunoglobulin receptor positive tumor cells were identified by rosetting with trypsinized sheep red-blood cells coated with Ig (immunoglobulin)G (Fc gamma) or the purified IgM fraction (Fc mu) of rabbit antisheep red blood cell serum.[8] C (complement)$_3$ and Fc receptors were also identified utilizing the euchrysine stain. Surface immunoglobulin was detected by staining cells with an FITC labeled F(ab^1)$_2$ fragment of anti-human immunoglobulin. Smears of cells were also stained by the esterase stain according to Yam, Li, and Crosby[9] to detect monocytes. Blast transformation of cells in vitro was measured by the incorporation of tritiated thymidine after stimulation with phytohemaglutinin, concanavalin A, and pokeweed mitogen as previously reported.[8]

Comment

Leukemia occurs in the course of NHL in both nodular and diffuse histopathologic types in an incidence approaching 10 percent.[10] In the subtype of lymphoblastic lymphoma, about half the patients are found to have a mediastinal mass[11]; the prognosis is particularly poor because of the early and rapid dissemination to the bone marrow or central nervous system with leukemic peripheral blood. These diffuse lymphomas are composed of uniform cells with scant cytoplasm and fine, delicate, or dusty chromatin. Nucleoli, usually inconspicuous, are sometimes prominent, but mitotic figures are prevalent.[11] T-cell markers are demonstrated by surface immune studies.[4,5]

In the Berard et al.[3] report of surface immune characteristics in patients with NHL, only eight patients with leukemic dissemination were available for study. Of these, only one patient's peripheral blood cells were found to lack immune markers, and this patient had diffuse histiocytic lymphoma. As expected, four patients with both lymphoblastic lymphoma and leukemic cells were found to have T-cell markers.

Our patients appear to be unique. They both had mediastinal nodal enlargement and histopathologic pictures consistent with lymphoblastic lymphoma. The first patient, two years after primary radiotherapy, developed leukemia with an indolent course for seven months until she died. The second patient had a shorter course with early leukemic transformation with large cleaved (conspicuously convoluted nuclei) lymphoblasts in the peripheral blood. No surface markers were found in the peripheral leukemia cells in either case even though the clinical presentations and morphology suggested a disorder of T-cell origin. Unfortunately, surface markers of the cells at the time of the primary disease were not studied.

It is interesting to speculate on the origin of the null cells. Holland[12] has suggested that null cells are pre-T cells. This is based on the response of null cells to asparaginase in childhood acute lymphoblastic leukemia (a null-cell disease) and to the observations of Ohnuma et al.[13,14] that human T cells in culture require asparagine for growth and are markedly sensitive to asparaginase and/or cytosine arabinoside (phenomena not demonstrable in human B cell lines in culture). In our patients, following the occurrence of null-cell leukemia, treatment with asparaginase and cytosine arabinoside was instituted. Both patients responded by decrease in blast cell counts as expected in T-cell leukemias.

It may be that null-cell leukemias may arise in the course of T-cell lymphomas as a selection of a clone of cells with less surface differentiation, more primitive surface immune characterization. Prospective surface immune marker studies of NHL nodes in patients who will go on to leukemic dissemination would be of interest to test this hypothesis. It may well be, again as Holland[12] has suggested, that further correlation of surface immune markers and biochemical particularity, for growth factors and drug sensitivity, may permit specific, intensive, and efficacious treatment for these lymphoproliferative diseases.

Summary

Two patients with diffuse poorly differentiated lymphocytic lymphoma developed leukemic dissemination. The clinical presentation, histopathology, and peripheral blood morphology suggested disorders of T-cell origin, yet analysis of leukemic cells demonstrated absence of surface immune markers, non-T, non-B, or null cells. This may represent a clonal selection of primitive pre-T cells during leukemic transformation.

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Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported Anaphylaxis has also been reported

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients)

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103080R]

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*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae* [8]

Note. Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients

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Hemothorax

Unusual complication of hereditary multiple exostosis

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Hereditary multiple exostosis is a bone dysplasia of unknown etiology, in which osteochondromas affect many long and flat bones. While malignant degeneration is the most feared complication of this disease, numerous other complications result from pressure of osteochondromas on adjacent soft tissues. These include neuropathy, vascular problems,[1,2] and spinal cord compression.[3,4] We describe an unusual complication of this disorder.

Case report

A 20-year-old male, known to have hereditary multiple exostosis, presented symptoms of severe pleuritic chest pain in the right side. The patient had been well until two months prior to his admission when he suffered the first of two episodes of pleuritic chest and flank pain on the right side related to heavy physical work and aggravated by laughter. On physical examination, the only abnormal physical finding was dullness at the right lung base. Radiography of the chest revealed a right subpulmonic pleural effusion and irregularity of the right ninth rib anteriorly (Fig. 1A). Thoracentesis yielded 700 cc. of bloody fluid. Tomography of the ribs revealed an irregular spur-like exostosis protruding medially from the anterior end of the right ninth rib (Fig. 1B). The patient underwent a thoracotomy, at which time a knife-like exostosis of the ninth rib was found in contact with the diaphragm; the adjacent diaphragmatic surface was abraded and hemorrhagic with

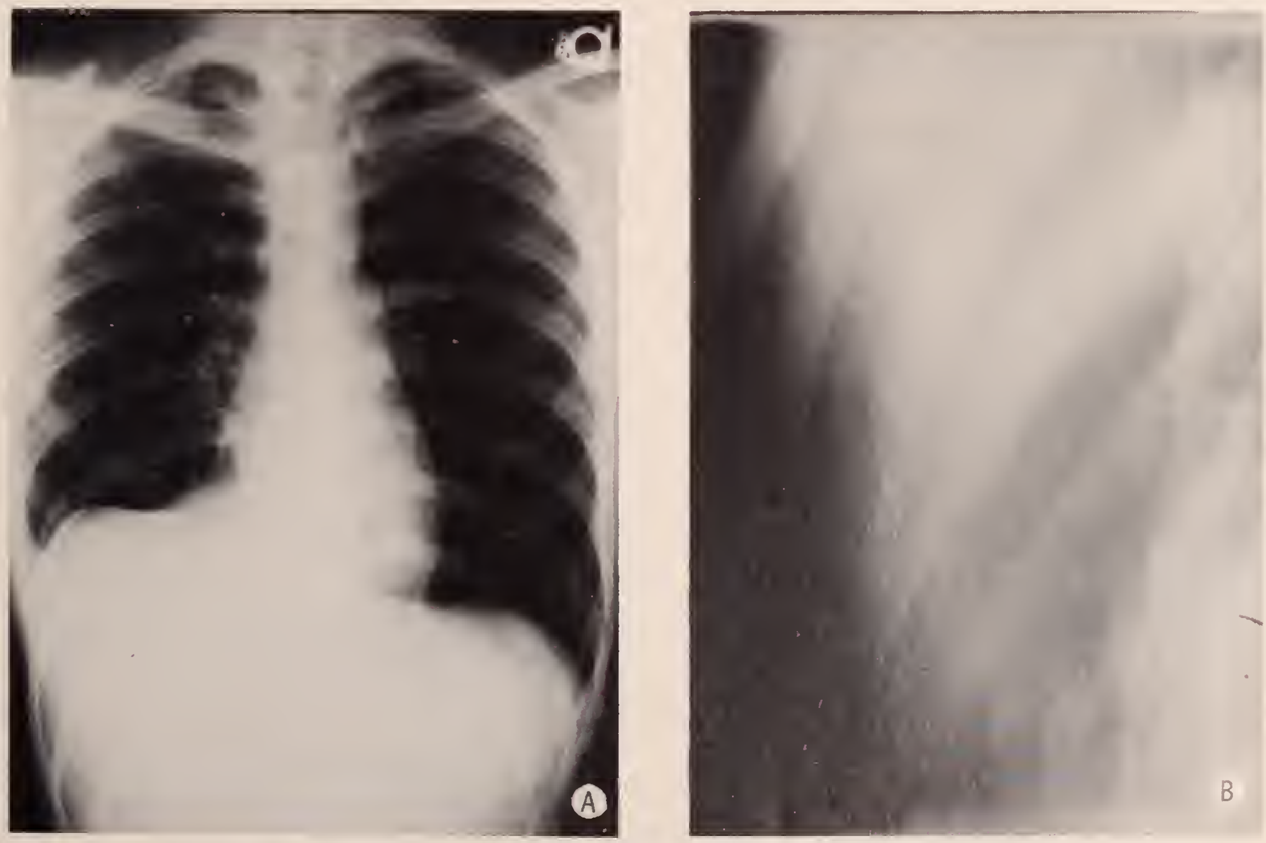

FIGURE 1. X-rays. (A) Right subpulmonic pleural effusion and irregularity of right ninth rib anteriorly. (B) Spur-like exostosis projecting medially from involved rib.

areas of acute and chronic inflammation. The exostosis and adjacent diaphragm were resected, and the patient made an uneventful recovery.

Comment

Osteochondromas of the ribs occur not infrequently in hereditary multiple exostosis.[5] They have been described as occasionally projecting into the pleural cavity.[6] Surprisingly, reports of costal chondromas causing irritative pleural symptoms are rare.[7] Spontaneous hemothorax is an unusual complication of costal osteochondromas in hereditary multiple exostosis.

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Silicone breast implants may expand at high altitudes

What happens to the stewardess' silicone breast implants when the cabin pressure suddenly drops at a high altitude?

Do they blow up like balloons? Possibly even burst?

There is no ready answer. But there is a chance that the lady in question might be in trouble, says a report in the November 14 Journal of the American Medical Association.

A stewardess who has had implants to enlarge both breasts asked this question of her physician. If the plane in which she was working suddenly lost cabin pressure at 28,000 feet or higher, would she have discomfort, pain? Might the silicone envelope rupture?

Charles C. Fullett, M.D., of Atlanta, responded with some basic physics. Assuming the implants were done at sea level, at 18,000 feet the air in the implants would expand to twice original size. At 30,000 feet the expansion would be three times the sea level size.

It would be necessary to know the strength and elasticity of the silicone envelope to determine whether it would burst, Dr. Fullett points out.

"Although the skin overlying the augmentation (implant) is normally extremely elastic, one could assume that this anticipated degree of air expansion might create some discomfort at a minimum."

Dr. Fullett suggested that the stewardess could learn her tolerance by carefully controlled gradual exposure in a decompression chamber.

"Over the years," he says, "I saw many flight attendants with breast augmentation who had no complaints from flying at normal airline cabin pressure, seldom above 7,000 feet."

Beyond Malpractice

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During the past six to seven years there has occurred in these United States what is commonly known as the "medical malpractice crisis." [1] Because of this, medical liability insurance rates have skyrocketed, commercial insurers have retired from the field, many physicians have left private practice to enter into governmental or industrial medicine, or have retired early (as has this writer).

Whether the crisis is to be ascribed chiefly to loss of physicians' former positions as the "high priests of the healing art," to the currently litigious society, or to the surprisingly high incidence of medically related injuries associated with the practice of modern medicine, the problem is, nevertheless, still with us.[2,3] From the increasing rate at which malpractice suits are being won by plaintiffs and the increasing levels of the jury awards and insurance settlements, one may confidently expect that it will continue to worsen.[4]

Remarkably, in many of the court decisions, there is little or no evidence of medical or hospital fault. The members of the subsequently disbanded jury often will later admit that they didn't think the physician, or the hospital, had done anything particularly wrong. But the plaintiff had suffered a grievous injury through no fault of his own; he had been disabled and was, or would be, under medical care for a long time, perhaps permanently. It had seemed to the jury only fair that he should be compensated by someone, in this case by the provider's insurance company "which has more money than it knows what to do with."

It would seem that the time has come for us to listen to what these juries are trying to tell us. Why should an innocently trusting patient, or his dependents and/or heirs, not be compensated if he is injured by the operation of the modern medical process? At the present time, unless provider fault can be demonstrated to the satisfaction of a court of law, barring settlement, the patient and his family ordinarily must assume the entire loss in terms of medical expenses, perhaps prolonged, in loss of income (perhaps permanently), in physical disability, in loss of consortium (owed directly to the spouse and to the dependents in terms of support and other advantages), and in personal pain, suffering, mental stress, or depression. Fortunate is the injured patient who possesses health and accident or disability insurance. Many of the others will be reduced to dependence on the welfare rolls or other forms of private or public charity.[5]

Is this fair to an innocent patient? Maybe the juries know something we have overlooked. Should the health care system then be forced to bear a larger proportion of the cost of caring for persons injured in the course of medical care? Isn't that what an ideal tort system should provide?

Not really. The concept of torts as developed under the English Common Law was based on the ancient charge or "Writ" of "Trespass on the Case." It differed from ordinary trespass in that it did not imply intentional or direct injury, or malice. Rather, it dealt with injury caused to another by negligence either of an active or passive type. To illustrate the difference: If one riding in a wagon were deliberately to throw a log in front of the hooves of an oncoming horse, causing him to stumble and throw his rider, a cause of action for trespass would arise. But if, on account of some negligence, the occupant of the wagon had failed to fasten the log securely so that it fell out onto the road at some time, later causing a horse to stumble and throw his rider, the legal consequences would be construed under trespass on the case.[6] Then and now, an effort accordingly would be made to make the injured party whole, ordinarily by the payment of money damages. But suppose, due to severe rains and flooding, the roadbed had been partially washed out, causing the wagon to become overturned, spilling the logs onto the road. If the oncoming horseman were to arrive at the scene before the logs could reasonably have been retrieved from the road, should a cause of action lie against the owner of the wagon, or his employees?

In more immediate terms, if the injuries, or a preponderant proportion of them, which admittedly often do arise in relation to modern medical care, can be shown to be inherent concomitants of such sophisticated care and not truly related to provider fault, it would seem inequitable to impose the entire responsibility for compensation for all of them on the providers. While society has not yet addressed itself squarely to this problem, isn't that what the juries are telling it to do?

Incidentally, the jury system as used in these United States would now seem to be an anachronism. In no other civilized country in the world is a lay jury utilized to determine the outcome of malpractice cases. Even England, the "motherland" of the Common Law, discarded them eight or nine years ago. Indeed, they never have been used as freely in any of the Commonwealth nations as they have been in the United States.

The jury system

How did this jury system come about? At the time of the American Revolution, the colonists were unbelievably incensed and bitter against the rulings of the Crown-appointed judges who, understandably, generally ruled in favor of the interests of the government of his majesty, King George III. Accordingly, when the American Constitution was adopted, the Seventh Amendment was attached. The entire amendment would seem to be directed at the very type of litigation of which the medical malpractice suit might be considered a prototype. It proclaims: "In Suits at common law where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by jury, shall be otherwise re-examined in any Court of the United States, than according to the rules of the common law."[7] Unless both parties to a malpractice suit should agree to replacement of the jury by a judge, ordinarily a jury trial will be utilized.

What is the quality of the justice which may be expected from a lay jury? While it has been estimated that a jury will find in accordance with what a competent judge would have found approximately 75 to 80 percent of the time, it must be admitted that even competent judges do not attain a level of absolute justice 100 percent of the time. Shall we assume that they do 85 to 90 percent of the time? If so, it then might be estimated that a lay jury will proffer reasonable justice in about two thirds of the cases.

Since it takes a bold judge, strongly confident of the strength of his position, to overrule a jury verdict on the basis that it be contrary to the law or the evidence, lest he, in turn, later be reversed by an appellate court, for practical purposes we may ordinarily consider the final jury decision to be "the law of the case."[8] Is that good enough? Plaintiffs' lawyers who handle malpractice cases will surely approve, crying out "Preserve the jury system." Defendant physicians and hospitals will continue to contend that for them there is often a demonstrable denial of justice and equity.

It is true that a lay jury is never invoked in matters of truly national importance. No one has ever suggested that a lay jury should be impanelled to determine what actually happened at Three Mile Island, or what should be done about it. It must be admitted, of course, that no individual medical malpractice suit is truly of national importance, despite the sometimes critical consequences for the individuals involved.

Well, what do these medically related injuries that we have been referring to actually comprise? First, it must be remembered that everyone, even in our enlightened society, must someday die and that at that very moment most of us will be under the care of a physician and very likely will have been admitted to a hospital. Whether the final cardiac asystole takes place during the course of a physical examination in the physician's office, or while the patient is being bathed in a hospital room, is biologically irrelevant. Life has ended in a medically related episode, but in no way has it been caused by any provider negligence. Obviously, however, there could also have occurred some type of seeming or actual negligence, which in no way would have influenced the outcome. Thus, the patient might have been undergoing an "invasive" diagnostic test. Even when there has been no provider negligence, it is extremely unlikely that the physicians and hospital personnel will have presented a truly perfect performance. Certainly their documentation will not have been perfect.

Obviously, a lesser degree of injury could have taken place instead, perhaps a non-fatal heart attack or stroke. Again, almost any type of nonrelated provider negligence conceivably might simultaneously have been present, or absent.

The foregoing incidents have been referred to as risks of life and essentially are unrelated except coincidentally (chronologically) to provider negligence, or even to the fact of the administration of medical care.

The majority of medically related injuries would, however, seem to be the predictable consequence of inherent risks and hazards which are unavoidably associated with modern medical measures, preventative, diagnostic, or therapeutic. Thus, there is a small but calculable risk of encephalitis from the admittedly worthwhile administration of vaccinia vaccine. The risks of cardiac catheterization and angiography are well known.[9] Yet these precise diagnostic measures have been of inestimable value to innumerable patients. The hazards of chemotherapy and radiation for malignant disease are inseparable from their benefits. And their undeniable potential for good cannot be obtained without incurring those very risks. Likewise, modern surgical procedures, with their great potential for cure and for elimination of chronic disability, always involve risks both of death and morbidity.

Boyden,[10] in 1971, found 45 instances of medially induced injuries among 400 hospital records (11 percent).

Pocinski, Dogger, and Schwartz[11] in 1972, found an 8 percent incidence of iatrogenic injuries among 800 hospital charts.

Mills, Rubsamen, and Boyden[12] in 1974 to 1975 reviewed 21,000 medical records from representative California hospitals. They employed 20 different generic screening criteria of medical injury in determining that among the 4.65 percent of these patients who had suffered a medically related injury while in the hospital, only 0.8 percent reflected the results of either physician or hospital negligence (17 percent of the injured). This study, with its admitted faults, offers the best reference article of its kind which is available today.

We may conclude from the foregoing that up to 10 percent of all patients who presently undergo hospitalization in the United States will suffer a medically related injury. Of these, about 15 percent can be traced to provider negligence.

Basically, that 15 percent constitutes the entire group which equitably should be compensated under our present fault-based tort system. Obviously, ingenious plaintiffs' lawyers frequently can obtain compensation for some of the other 85 percent, based on a spurious theory of fault, since it is indeed a rare medical performance or hospital record which cannot be made to show some kind of fault. Just as it is freely admitted that there never yet has been a perfect court trial, since man is incapable of perfection or perfect performance, so, too, only a fair and good faith performance can be expected of medical providers. The Constitution only guarantees us a fair trial!

Medically related injuries

I. **Who bears the expense?**
   A. The health provider (or insurer) when fault can be shown.
   B. The patient in terms of:
      1. Medical expenses
      2. Loss of income
      3. Disability or shortening of life
      4. Pain and suffering
      5. Consortium: sex, companionship, loss of opportunities (family)
   C. Consumer insurance (health and accident, disability, pension, retirement, and worker's compensation)
   D. Public charity, welfare, industry, pension

II. **Injury causes**
   A. Risks of life (all must die, and so forth)
   B. Injuries occurring during preventative efforts: encephalitis from vaccination
   C. Injuries from invasive diagnostic studies: cardiac catheterization, encephalography
   D. Inherent risks of modern therapy: mortality and/or morbidity rates of chemotherapy, heart surgery
   E. Injuries due to provider fault (17 percent)

III. **Hospital related**
   A. 21,000 Hospitalizations in California (1975)[12]; 4.65 percent, medically related injuries
   B. Incidence: 0.8 percent injuries due to provider fault (17 percent)

Let us consider the potentiality of compensation for medically injured patients which is available today, and mention some other methods which have been proposed but not yet tried.

Fault-based compensation

The three methods of compensation which have been reasonably extensively utilized are all based on the demonstration of provider fault. They are: (1) Common Law litigation (the customary medical malpractice suit), (2) The medical malpractice panel (or mediation or screening panel), and (3) arbitration of malpractice suits.

All of them depend on provider-furnished insurance. In itself, since it ameliorates the otherwise crushing burden of furnishing compensation, this tends to lessen the possibility of benefits to society in terms of improvement in provider performance.

The first of these methods is now so well known that little more need be said here than already has been. While historically the majority of those suits which have been continued all the way to a jury verdict have ended in favor of the providers, a much larger proportion have been settled, the insurance carriers and the providers thereby tacitly admitting to a certain degree of fault, or of inability to be sure of persuading a jury or a mediation panel otherwise.

Pretrial screening panels

The medical malpractice panel is a rather recently introduced technique which may be considered an adjuvant to the usual litigation of malpractice suits. Here, a panel consisting of one or more physicians, or chiropodists, one or more lawyers familiar with negligence litigation, and such other person specifically designated or selected as a consumer representative or, more often, an experienced judge, either on a voluntary or a mandatory basis (in approximately half of the states such preliminary medical malpractice panel hearings are now required by statute), will consider a presentation of the merits of the case by the representative lawyers prior to trial at court. While there are considerable individual legal variations in the separate states, in general, the determinations of the panels, especially since the opinion is obviously impartial, has greater authority than that produced by the testimony of any individual expert witness appearing for either side.

It is also believed that the contesting parties will usually be persuaded by the outcome of such a panel determination either to drop the matter or to enter more seriously into negotiations directed toward settlement of the claim. Thus, it is felt that fewer cases will actually be carried all the way through the ultimate stress and temporal requirements of a court trial, running the gauntlet of all of the unpredictabilities involved in dealing with a lay jury, meanwhile incurring greatly increased legal expenses. Thus, it is hoped that some of the calendar congestion of our courts will be relieved by the use of such panels.

The medical malpractice panel is believed to have originated as the Pima Plan in Pima, Arizona, approximately 20 years ago. At that time, it was a response to a purely voluntary effort being made jointly by the medical malpractice committees of the respective county medical and county bar associations. The two chairmen of these committees became the cochairmen of the then-combined committee which thereby came to constitute the primordial joint screening panel of the two associations. The lawyers for the respective parties would present the facts of the case to this panel, consisting of not over 20 members, which, by majority vote, then would determine whether or not there was any medical liability. Court trial would be permitted to proceed if settlement or dismissal of the suit did not follow.[13]

After 16 years of experience with this voluntary procedure, submission of all malpractice litigation to the Pima County medical malpractice panel, or corresponding panel in another county, has been made mandatory by Arizona statute as the medical liability review panel in 1976. The members of both the medical and the legal professions in that state appear to be pleased with the process, according to a letter received by the author from the associate executive director of the Arizona Medical Association, Inc., dated January 21, 1980.

New Mexico also has had long (since 1964) and satisfactory experience with this type of large combined medical and legal malpractice panel.[14] Here the chairman of the medicolegal committee of the New Mexico Bar Association becomes the chairman of the committee formed by combination with that of the state medical society. The number of members of this joint screening panel of the New Mexico Medical Society and the New Mexico State Bar Association is limited to 25. Here, too, the panel has been established as mandatory by statute passed in 1976. This is chaired by a judge, appointed by the state supreme court. A letter, also dated January 21, 1980, received from the executive director of the New Mexico medicolegal panel indicates continuing satisfaction with the operation of this program.

While experience with such precourt trial tribunals has only existed during the past four to five years in most other jurisdictions, they have generally met with favor, at least in the local medical community. Thus, a recent seminar sponsored by the Association of the Bar of the City of New York, on February 14, 1980, has indicated real approval of the way in which the panels have worked in that State. In New York, the rather streamlined panel consists of three members. One is a physician specializing in the appropriate medical field, who is selected from a list prepared by the local county medical society; one is a lawyer experienced in personal injury litigation whose name is selected from those on a list prepared by the county bar association; and presiding is a New York Supreme Court judge who is especially experienced in, and interested in, the resolution of medical malpractice problems. A unanimous vote of the entire panel, but not a mixed vote, as to the nonoccurrence or occurrence of malpractice and the resulting lack of or existence of liability, may be presented at any subsequent court trial. In that event, either the lawyer or physician panelist may be subpoenaed by either side to testify in court as to the panel decision and the reasons for making it.

A committee of New York judges recently has criticized these panels.[15] The State of Pennsylvania appears to have found malpractice panels to be legal disasters. Whether the difficulty was primarily logistical (there they consisted of seven members) or whether there was some other special difficulty, the result appears to have been inordinate delay in the processing of medical malpractice cases. As a result, the court calendars as to medical malpractice cases became unbelievably congested, and the panels came into widespread disrepute. As a consequence, the Supreme Court of Pennsylvania by a 25:2 vote on September 22, 1980, in the case of Mattos v. Thompson abolished the malpractice panels as unconstitutional.

It is the author's personal opinion that the medical malpractice panel represents a definite advance in the management of malpractice litigation which is based on the finding or assessment of provider fault. Obviously, their existence and their continued functioning must continue to be backed up by the availability of conventional litigation should they not lead either to dismissal or to settlement of individual suits.

Arbitration

While arbitration tribunals have long been used in the mediation of labor-management disputes, and frequently have been contracted for in commercial transactions, they have had relatively little trial in the resolution of medical malpractice controversies in the United States. The chief exception to this has been the State of California, where the Kaiser Foundation and the Ross-Loos Clinic have invoked them for the resolution of medical disputes for many years.[16] More recently, this technique has been expanded within that state to apply to patient difficulties both with individual physicians and with hospitals.

Four years ago the Medical Society of the State of New York sponsored the use of arbitration agreements between individual physician members and their patients. Carbon-backed printed contracts were supplied to the membership for individual patient and physician signatures. Originally, the contracts purported, as soon as signed, to relieve the physician, forthwith, of any risk of necessity for a court trial in the case of any subsequent medical dispute. Later, the wording of the contract was changed to permit revocation of the patient's agreement to accept arbitration by a tribunal provided by the American Arbitration Association in lieu of a court trial at any time within 30 days of the date of signature.

Obviously questions might be raised as to the legal validity of such an agreement, particularly the earlier one without the 30-day revocation clause, on the basis of failure of comprehension by the patient. Another argument which might be raised would relate to the relative strengths of the positions of the two contracting parties. Obviously, if duress or coercion in the making could be shown, it would clearly impugn the legality as well as the morality of the arrangement. In view of the lack of experience in most jurisdictions with this method of settling medical disputes, it is conceivable that some patients might, at some time after signing, reject the arbitration contract and simply commence a legal action. Whether the court would then enforce the contract or would merely permit the physician to countersue on a charge of breach of contract remains to be seen. Similar arbitration contracts are available for the resolution of patient-hospital disputes. Here, too, permissibility for revocation persists for 30 days.

One of the features of arbitration is the lack of appealability. Ordinarily, a hearing officer's final opinion cannot be challenged except on the basis of illegality or failure to follow proper arbitration procedures.

Unlike the use of the medical malpractice panel, which is a refinement imposed on, or added to, traditional litigation, the arbitration system offers a complete replacement for it. In contrast to formal litigation, it is claimed that arbitration is cheaper, quicker, and more available to the injured party. The hearings are relatively informal compared with regular court proceedings, thereby introducing some increased risk that the procedural and due process rights of the individual parties might, at times, be eroded. There would seem to be no more inherent incentive for bringing about improvement in provider performance than applies in ordinary litigation, again because of the usual existence of liability insurance.

Proposed, untried methods for compensation for medical injury

No-fault compensation. Various elective or statutory no-fault techniques by which compensation for medically related injuries might be compensated have been advocated. Thus, O'Connell[17,18] has strongly urged both elective (contract) and statutory efforts to provide efficient no-fault compensation for injured patients. Federal legislation has already been proposed for this. The present requirement of finding provider fault renders existing methods of compensation both cumbersome and costly. Many potentially compensable claims go uncompensated or are undercompensated. Moreover, there is a continuing temptation to chicanery with respect to the finding of fault.

As in other kinds of no-fault, there would be a trade-off in the possible upper limits of the awards available under the present litigation system for the greater certainty and promptness of compensation with a no-fault system. A patient would not need a lawyer to make his no-fault claim. However, a provision might well be incorporated, as it is in automobile liability no-fault, by which conventional litigation would be available at a certain point of economic or financial break-off, that is, with severe injuries the right to a jury trial still could be invoked.

Unhappily, efforts at no-fault compensation in other areas, such as in motor vehicle accidents, currently are under intense scrutiny and are being subjected to increasing criticism. Until such present doubts are resolved, it is unlikely that the no-fault principle will be applied in the compensation of the medically injured.

Medical adversity insurance. An ingenious modification of the no-fault approach is that advocated by Havighurst and Tancredi,[19] and by Havighurst.[20] In this sytem a list of automatically compensable events is designated in advance of their occurrence for which provider-purchased insurance would automatically compensate the injured. This would include automatic indemnification for medical expenses and lost wages for stipulated time periods. Again, the possible upper award limits would be tempered by the increased certainty that compensation would be forthcoming. Those events which have not been specified in the policy would be compensated in one of the more conventional ways, as by litigation or by arbitration. It has been proposed that provider responsibility be heightened by the use of experience-based or merit-rated insurance premiums.

Social insurance. The Social Security Disability Insurance program and various state workers' compensation programs might be used as a model or prototype for a social insurance plan of compensation for medical injuries. This proposed compensation program would, however, be financed by general revenues rather than by any employer-employee contributions.[21,22]

Thus, the cost of adverse outcomes of risky medical activities would be placed on the back of society as a whole rather than, as at present, on either the injured individual or the provider.[20,23] If this be criticized as socialistic, let us remember that the primitive rules of dog eat dog and devil take the hindmost have long since been effectively repealed in this democracy by numerous laws providing for the health, education, and welfare of all the various elements, and individuals which make up our society.

With social insurance, access to compensation would be essentially automatic on application. The assistance of an attorney would be needed only in a case of unusual circumstances. A fixed schedule of benefits would bring about a high grade of predictability. Lost wages and medical rehabilitative expenses would be compensated for. Modification or extension of presently existing administrative agencies could be utilized to effectuate the proceedings.

As in no-fault and in medical adversity insurance, the increased predictability of compensation would be offset by a lower level of individual awards for less well individualized losses. Again, the possibility of conventional litigation could be preserved for those suffering more severe injuries or those involving greater than a stated amount to be compensated.

Constitutionality

Various legal attacks on all of these tried or proposed improvements over the right to conventional litigation have either been encountered or may be expected in the future. In the past, such attacks have generally been struck down on bases such as the "panel conclusion being comparable to expert testimony," [24] or as being within the rights of contract by the parties (arbitration), or as in the old workman's compensation or more recent automobile no-fault statutes, on the basis that the increased certainty of a remedy is a fair exchange for giving up the right to sue.[25-27]

Unless health care providers join in a crusade to replace the present fault-based inequitable programs, medical adversity insurance or social insurance (Federal) providing compensation for medically related injuries might have to await the introduction of a national health insurance program. Then, the acceptance of Federal funds for health care expenses surely will be construed as simultaneous or contractual acceptance of a Federal compensation scheme for losses related to injuries sustained during that same period of treatment.[28]

Whatever the method of compensation eventually adopted, it is important that the thrust of our inquiry in the future be redirected from a search for liability due to fault of providers to a determination of what injuries have occurred and whether they should be compensated and, if so, to what degree.

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Professional Competence

Evaluation

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Until shortly after World War II, physicians in this country were held in high esteem. Most people believed that physicians were uniquely qualified to make the important decisions in matters of health and disease; many physicians shared this belief. In the intervening years, this attitude has changed markedly. Although many patients today remain content with their own physicians, there is growing criticism of medical care generally and increasing demand that greater control of physicians be made mandatory.

There are a number of reasons for this change in attitude toward physicians, but many of them center around the issue of physician competence. There have been major advances in medical care during this period of time. There is growing concern that physicians may not be familiar with newer developments and may not maintain the ability to practice modern medicine. There is a general belief that the medical profession should be able to identify incompetent physicians and deal with them in some appropriate manner. Unfortunately, it is not a simple matter to detect professional incompetence or to correct it once it is detected.

Peer review

It is attractive to solve this problem by actual review of the activities of each physician in his or her practice. Indeed, evaluation of patient outcome would seem to offer the only valid measure of the physician's continuing competence. But how can this be done? The outcome of any case may not be determined by the qualifications of the physician.

Peer review, as it is currently practiced, usually involves a retrospective study of medical records. Anyone who has engaged in these efforts realizes that this type of review is, at best, an inexact science. Some highly skilled physicians are not concerned with the medical record. At the other extreme, physicians who are worried about their performance may document their activities in minute detail with whatever additions and embellishments cast the most favorable light on the outcome. The reviewing physician may be quite incapable of making appropriate judgments on records of either type.

Observation

Direct observation of the physician in practice is a superficially attractive alternative. A physician who has been trained to observe and evaluate should be able to assess another physician in a reasonably short period of time; evidence suggests that physicians are not very competent at this process. Medical school faculties have difficulty dismissing an incompetent medical student. Various members of the faculty bring different perceptions and different degrees of compassion to this evaluation, and the evidence must be almost overwhelming before a student is dropped. Reviewing the activities of a resident-in-training should be somewhat simpler since each training program has a small number of residents at any given time. Program directors are loath to drop a resident, and even more reluctant to communicate this decision in writing to others. Therefore, after one training program drops a resident for incompetence, he or she can and often does complete training in another program. The same problem exists in medical practice. For a hospital staff to drop a colleague and friend requires behavior that is ongoing, bizarre, and dangerous to patients.

There are a number of other problems with this approach. First, an endeavor of this magnitude would be expensive since the reviewing physician could not be expected to donate his or her time. Second, an evaluation of one physician by another requires a group of physicians able and willing to spend a significant share of their professional lives reviewing others. Third, and most important, this type of review lacks objectivity and reliability. The little evidence that exists on this subject demonstrates that there is poor correlation between the opinions of different reviewers watching the same patient-physician encounter. If this type of review is done on a local level, a fourth objection is evident—friendships or personality conflicts may bias the evaluation either positively or negatively. Finally, any decision to restrict or revoke an individual's license to practice medicine will inevitably be reviewed by the courts. If the decision is to withstand legal scrutiny, the evidence must be clear-cut and objective. Otherwise, the courts are likely to reverse the decision.

It is argued that the cost of the process could be controlled if only marginal physicians were reviewed. Identifying those who require review would be arbitrary, and the process would certainly be challenged.

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One possible method for identifying these physicians would involve use of data from PSROs (Professional Standards Review Organizations). PSRO data are obtained by nonphysicians reviewing records against criteria established by physician committees. This information may identify problems in patient care within a hospital, but it is not designed to evaluate the behavior of individual physicians. Its use for this purpose would be of doubtful validity, and it would certainly be violently opposed by those chosen for review.

Even if these arguments were overcome, it is improbable that public accountability can be achieved by a sampling process that reviews only a small number of physicians, however they may be selected.

Because of these limitations, direct review has not been successful for medical licensure or certification. The state medical boards, and the medical specialty societies and specialty boards all have interest in evaluating physican competence. These organizations can deal readily with only one facet of competence—cognitive information. The medical licensing and the specialty board examinations are both based on demonstration by the candidate of an appropriate level of knowledge. The possession of reasonable scientific information is no assurance that it will be properly used. Certainly it is very likely that the individual without the knowledge cannot perform properly. Since this facet of competence can be evaluated objectively, medical testing organizations concentrate on this aspect of the problem in granting a license or a specialty board certificate.

Continuing education

Once the physician enters practice, what steps should be taken to assure continued competence during his or her career? This issue can be viewed from three different perspectives, the points of view of (1) the medical profession, (2) the press and the politician, and (3) the public.

The members of the medical profession generally agree that there is a need for continuing education. The success of the educational programs offered annually by the American Academy of Orthopaedic Surgeons attests to this desire for knowledge. The excellent response to examinations such as the MKSAP (Medical Knowledge Self-Assessment Program) of the American College of Physicians and the SESAP (Surgical Education and Self-Assessment Program) of the American College of Surgeons is encouraging. The internist completing MKSAP or the surgeon completing SESAP undertakes a carefully planned comprehensive review of new developments in his or her field. Most national specialty organizations have developed similar presentations, featuring an examination and a detailed syllabus of current, significant material. Each of these programs is expensive and time-consuming, both for the test committee members who develop them and for the physicians who participate in the program. However, their successful completion affords a sense of satisfaction to all concerned. There are two important attributes of these programs that are important to many physicians: (1) participation is entirely voluntary, and (2) results are reported only to the candidates. Because properly constructed postgraduate courses and self-assessment exercises are educational, many physicians believe that this voluntary effort should be sufficient. Since many physicians take these efforts seriously and work hard to master the material, it is argued that no other controls should be necessary.

A number of medical organizations have not supported this purely voluntary approach, arguing that the physician who does not participate may be the one who most needs further education. Many state medical societies require evidence of continuing medical education for maintenance of membership. Almost half the state medical boards have mandatory continuing medical education requirements for reregistration of the license to practice. Some physicians are disturbed by even these requirements, but there has been no real ground swell of opposition. It is apparent that most physicians are willing to accept either mandatory continuing medical education or voluntary self-assessment examinations.

Recertification

There is a marked contrast between the attitude of many physicians toward continuing medical education requirements and specialty board recertification. Several years ago all the recognized specialty boards decided to undertake recertification programs. The American Board of Family Practice made this a mandatory step when the board was organized; the other boards have stated that, since certification is purely voluntary, recertification is also voluntary. Many certified specialists view this statement with suspicion. Right or wrong, they believe that recertification will eventually become mandatory, owing to the action of the specialty board itself or of some other agency.

Examinations

Much of the opposition to recertification centers around the examination, which is one part of the process, and there is a wide spread of opinion on the matter. Some physicians are opposed to any examination at all. Others would accept, with reasonable equanimity, a take-home examination. Still others favor a proctored open-book examination. At the opposite extreme, some physicians believe that a proctored, timed, closed-book examination must be used. Those who are opposed to any examination contend that voluntary continuing education is sufficient, that no regulations are required. Those who favor an open-book examination contend that this approach closely approximates medical practice, that no physician would attempt treatment of an unfamiliar problem without consulting the literature. Those who argue for a proctored open-book examination state that the proctor is necessary to prevent collusion among physicians in completing the examination. Proponents of a timed, closed-book examination contend that no other mechanism has sufficient credibility with the critics of medicine.

Mankin, Carter, and Krawczyk[1] conducted an open-book experiment during the 1972 examination for residents in orthopaedic training. They concluded:

> In the final analysis, this experiment demonstrated that the 1972 Orthopaedic In-Training Examination probably achieved one of its purposes by requiring the examinees to think out their answers rather than to depend on a store of recall information. As a corollary, it is apparent that having texts available made a relatively small, though statistically significant, difference to the population sampled. These data suggest that the Orthopaedic In-Training Examination may approximate the problem-solving activities performed in the practice of medicine and that there may be some reason to believe that in some way it measures the competence of the individual as an orthopaedic surgeon. Analysis of the data further suggests that the permissive mode of examination should not be used in the foreseeable future since it would alter the purposes and current means of interpretation of the examination.

Schumacher et al.[2] conducted a similar study during the development of a recertification examination by the American Board of Pediatrics. They administered a 200-item, multiple-choice examination to a volunteer group of practicing pediatricians. Half the items were given as a timed, open-book examination and the other half as a timed, closed-book examination. There was no significant difference in the performance of the pediatricians on the two parts of the examination. In contrast, a group of medical students taking the same examination had significantly better performance during the open-book half of the test. After this study, the American Board of Pediatrics decided to conduct its first recertification examination using a proctored and timed open-book format.

Role of press

When the subject of physician incompetence is viewed by the press and the politician, a different picture emerges. The press plays a major role in reporting advances in medical science. The press also reports, sometimes in a sensational manner, medical misadventures. The politician is upset by the continuing rise in medical costs and by the medical manpower problems in certain localities or in certain specialties. A scapegoat must be found, and the physician is the obvious target. Many editors and politicians share the opinion that organized medicine has not done enough to control the small number of physicians who exhibit real problems: the alcoholics, the drug addicts, the drug pushers, the mentally ill, and the incompetents.

The medical profession is frequently troubled by its dealings with the press. Much of what is written on medical matters is accurate and important. However, it is axiomatic that the unusual event, rather than the mundane one, is newsworthy. Thus, it is understandable that the physician who does something out of the ordinary—be it good or be it bad—is reported by the press. When the press publicizes incompetent physicians who are practicing medicine without restraint, doubts about the medical profession in general are raised in the minds of the public and politician alike.

Government role

The political answer to this problem is similar to the political answer to any problem: greater governmental control. In studying health manpower legislation, a Senate committee approved the concept of a federal written examination to be taken every six years by all practicing physicians. The bill did not stipulate whether this requirement would include a proctored or a take-home examination. However, the bill did propose an identical examination for all physicians regardless of specialty. How the plan would be financed was not described. Although the bill proposed that individual states could set higher standards than would these federal guidelines, physicians who failed to meet the federal standards would be ineligible for payment under federal programs. This piece of legislation has not been approved by the full Senate or the House of Representatives, but it may be reintroduced for further legislative consideration.

Public view

It is difficult to evaluate the feelings of the public about medical competence. The cost of medical care produces more complaints than does its quality. Complaints from patients about any aspect of medicine are sporadic, frequently strident, and sometimes irrational. Many of them deal with failures by the physician to establish rapport or to show compassion for patients and families. Although there is ample justification for many complaints, a number of them arise from misunderstandings that could be avoided by better communication between physician and patient.

It is easy to be deluded about public complaints by the activities of certain consumer advocates who act as self-appointed protectors of the public welfare. In the medical field, these individuals have attacked a number of areas of medical practice: abuse of antibiotics, unnecessary surgery, and overuse of sedatives and tranquilizers to name a few. They have also opposed continuing medical education credits, asserting that they are granted too readily for courses without merit. They have even attacked medical licensure and specialty board examinations, contending that they are not relevant to medical practice. Physicians speaking for consumer groups are frequently physicians with no experience in either medical practice or in medical education, and no specialty board recognition. Unfortunately, they receive from the press and the politician attention that belies the modest experience from which they speak. Their undue influence is based on the sensational and inflammatory nature of the charges they raise.

Conclusion

Medical societies and specialty boards must recognize that there is no good method for ferreting out and dealing with the incompetent physician; this does not imply that nothing should be done. The activities of the specialty societies and the specialty boards should complement each other. No physician can be competent without continuing education; educational programs developed by the specialty societies should be continued and improved. No physician can be competent without motivation; appropriate recognition by the specialty board of an individual's abilities and efforts strengthens incentive. No physician can be competent without experience; this experience should be fortified by study and review of material from specialty societies and specialty boards.

If medical societies and specialty boards back away from the issue of maintaining professional competence because methods are inexact and results are less than perfect, the issue will certainly be taken over by others. If medical specialty societies and specialty boards cannot agree on an acceptable and meaningful method of specialty recertification, some other agency will assume responsibility. It is safe to predict that a system of monitoring professional performance stimulated by the press and designed by the politician to protect the public will be arbitrary, punitive, and expensive. The profession must support effective continuing education programs and significant recertification efforts. Self-interest demands this, especially if the profession is to maintain credibility and to prevent further governmental intervention into medical education and medical practice.

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Flat hot dogs suggested as curb on child's choking

A Flat Hog Dog?

Sounds odd, doesn't it?

But it just might lessen the chances of a child choking, says a report in the September 19 Journal of the American Medical Association.

Actually, flat, rectangular hot dogs were tested briefly in the 1940s, but failed to replace the traditional round ones.

Susan P. Baker, of the Office of the Chief Medical Examiner of Maryland, made a study of medical records of 42 Maryland children younger than 10 years who died of asphyxiation during the 1970s.

Twelve of the children choked on food; six of these choked on hot dogs, Ms. Baker found. Eight choked on other objects, wooden balls from toys, pacifier, rattle, balloons. Of those who died of suffocation, four succumbed when their faces became covered with plastic bags. Two were entrapped in old refrigerators, three became wedged in a crack in a sofa or next to the bed mattress. Two of the children died while sleeping with parents when the adult turned over and smothered the child, Ms. Baker said.

Asphyxiation by foreign materials in the respiratory tract is the leading cause of fatal injury in children younger than 1 year and ranks fourth for children aged 1 through 4 years, she said. In 1977, a total of 443 deaths were attributed to these causes in the U.S. in children younger than 5 years.

Changes in product design in pacifiers, styrofoam toys with cords, and in infant cribs has reduced the hazard from these objects in recent years, Ms. Baker said. She called for more attention to possible other changes that might protect children.

Actually, it probably *is not* practical to try to redesign the hot dog—and it might not help anyway—and other food items, but "high priority should be given to balloons and plastic bags," she said.

She also urged that designers pay more attention to potential risk in designing new products in the future.

"Products should be designed to prevent deaths that can be anticipated, based on what is known about the behavior of parents and children and the characteristics of materials involved in childhood asphyxiation."

Contraception and Female Sterilization

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In the United States 86 percent of couples who use reversible contraception employ a female-directed method. The dominant role of American women in birth control began about 20 years ago when two new methods were introduced: the birth control pill and the modern IUD (intrauterine device).[1]

On the other hand, male-directed methods of temporary birth control predominate in most nations of Europe and Asia. In Britain in 1970, 55 percent of married couples were using either the condom or coitus interruptus (withdrawal); in Japan, the condom remains the most popular method, and in Eastern Europe coitus interruptus predominates.[2]

Male and female sterilization

With regard to permanent contraception, the Association for Voluntary Sterilization in New York City estimates that among 90 million couples world wide, either the man or the woman has been sterilized. In India in 1973 vasectomy was the selected method in 84 percent of couples seeking a permanent method. In recent years, because of allegations of coercion during the former regime of Indira Gandhi, and because of newer simplified methods of female sterilization, minilaparotomy and laparoscopic sterilization operations are gaining rapidly in popularity in India. The same shift has occurred in the United States where female sterilization has become the most popular method of contraception with people over the age of 35, or when the family is complete. At the present time, approximately 600,000 tubal operations are performed each year in the United States, as opposed to 400,000 vasectomies.

In the United States, the five leading methods of contraception are the birth control pill, the diaphragm, the intrauterine device, contraceptive foam and condom, and postovulatory rhythm.

Oral contraception—("the pill")

The birth control pill is a combination of ethinyl estradiol or mestranol and a progestin such as norethindrone acetate. The gynecologist may choose from a total of 24 brands of estrogen-progestogen pills.

In general, patients should be started on a birth control pill containing the lowest effective dose of estrogen, that is in the neighborhood of 30 micrograms, as in norethindrone acetate and ethinyl estradiol (Loestrin, Zorane) or norgestrel and ethinyl estradiol (Lo/Ovral).[3]

There are three principal mechanisms by which the birth control pills prevent conception: (1) they suppress the elaboration of the pituitary gonadotropins, (2) they create a hypoplastic endometrium, and (3) they increase the viscosity of the cervical mucus.

Although the birth control pill is the most effective of all the reversible methods of contraception, with a method-failure rate of only two pregnancies per 1,000 women per year, complications from its use, although rare, are far more serious than are those associated with other methods. Most of the serious complications are ascribed to the estrogen component of the pill. That is why efforts have been made to reduce the dosage of estrogen to as low a level as possible, such as 20 to 30 micrograms per pill. If the estrogen content is below 30 micrograms, the failure rate begins to increase, as does the incidence of breakthrough bleeding. The most serious complications related to long-term oral contraceptive therapy are thromboembolism, myocardial infarction, stroke, hypertension, and Raynaud's syndrome. Most frequently encountered is hypertension, which will usually begin within the first six months of therapy, and which is discovered in approximately 5 percent of pill takers; it usually disappears within three months of discontinuing the pill.

Compared with controls, the risk of thrombotic stroke is increased 3 times among pill takers, the risk of myocardial infarction in ages 40 to 44, is increased 5.7 times, and the risk of myocardial infarction in smokers, ages 40 to 44, is increased 9 times.[4]

Additional complications from prolonged oral contraception include an increased incidence of gallstones, urinary tract infections, and liver tumors.[5]

The risk of developing hepatocellular adenomas among long-term users (over two years) is about 120 times the risk in nonusers and short-term users. The recognized incidence of these liver tumors is about 1 per million women in the population at large and 3.4 per 100,000 among long-term users. About 90 percent of hepatocellular adenomas discovered each year in the United States are found in oral contraceptive users.[6]

In addition to the serious complications of oral contraceptive therapy, side-effects are annoying and frequent. These include moniliasis, cervicitis,

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chloasma, depression, and decreased libido. On the other hand, the birth control pill may be helpful in alleviating primary dysmenorrhea and in the prevention or treatment of endometriosis.

Concerning the selection of a particular brand of oral contraceptives, 80 percent of patients respond well to balanced combinations such as ethynodiol diacetate and ethinyl estradiol (Demulen), norethindrone and ethinyl estradiol (Brevicon), or norethindrone and mestranol (Ortho-Novum 1/35). For patients with weight gain, acne, depression or oligomenorrhea, an estrogen-dominant pill such as ethynodiol diacetate and mestranol (Ovulen) is indicated. On the other hand, for patients with dysfunctional menorrhagia, a hyperestrogen state, or a history of pregnancy nausea, a progestogen-dominant pill such as norgestrel and ethinyl estradiol (Ovral) or norethindrone acetate and ethinyl estradiol (Norlestrin 2.5/50) is preferable.

Regardless of which pill is selected, it is wise to tell the patient that she may have some breakthrough bleeding for the first two to three months. In most instances, this bleeding will subside after the first three months, and nothing further need be done. However, for persistent breakthrough bleeding, the patient may be given a pill containing more estrogen, or she may take 20 micrograms of ethinyl estradiol (Estinyl) daily for seven days. Usually one course of estrogen will control the bleeding.

Although the risk of developing rare liver tumors is well established, there is no evidence that the incidence of any female cancer is increased in women on long-term pill therapy. On the contrary, there appears to be a significant decrease of ovarian cancer among the users of oral contraceptives, proportionate to the length of time on the pill. For similar reasons, the longer the pregnancy time experienced by women, the less the risk of ovarian cancer.[7]

In spite of the complications and side-effects of the pill, the strongest argument for the continued acceptance of the oral contraceptives is the fact that they are 10 times more reliable in preventing unwanted pregnancy than is the next most reliable reversible method. Specifically, the method-failure rate for the pills is two pregnancies per 1,000 women per year; the method-failure rate for the diaphragm or the IUD is 2 per 100 women per year. Christopher Tietze, of the Population Council, has estimated that if the pill were unavailable and all users switched to traditional methods, at least 800,000 additional unplanned pregnancies would occur annually in the United States.

Diaphragm

The diaphragm, introduced to the United States over 60 years ago by Margaret Sanger, is the second most effective contraceptive method for most well-motivated women. The diaphragm is simply a rubber disk designed to present a contraceptive cream or jelly to the cervix.

In general, the diaphragm should be refitted by the physician six months after the first fitting, after each delivery, and after marked weight gain or loss. A diaphragm (Ortho-All-Flex) is least likely to be misplaced in front of the cervix. It may not be possible to fit a woman with a diaphragm if she has a urethrocystocele. This is because there must be a sufficient urethrovesical angle to accommodate the front rim of the diaphragm. Uterine retroflexion or retroversion, however, is not a contraindication for the use of the diaphragm.

IUD (intrauterine device)

The woman who is best suited for the intrauterine device is the one who is most poorly motivated, or who is most likely to forget to use one of the other methods. However, the expulsion rate of most IUDs is approximately 3 percent the first year and slightly less in subsequent years. More important, the failure rate is about 2 percent, unless contraceptive foam is used at mid-cycle. Sooner or later, 10 to 15 percent of IUD wearers will develop endometritis or salpingitis, frequently evidenced by chronic uterine discharge. For this reason, most gynecologists are reluctant to insert an IUD in a young nulliparous woman because of the possibility of tubal scarring and subsequent infertility.

Examples of IUDs available in the United States include the Lippes Loop, the Saf-t-Coil, the Ypsilon; copper devices (Copper 7 or Copper T); and a progestogen impregnated device (Progestasert).

The lowest expulsion rates have been recorded with the Ypsilon, the copper T, and the Progestasert. In all three instances, women will expel these devices only 1 to 1.9 percent of the time during each calendar year.

If a woman presents a history of heavy menstrual flow, she is probably not a candidate for the IUD. Almost all IUDs cause a significant increase in menstrual flow. The least increase has been noted with the copper and progestogen devices. Women with these IUDs have been found to lose 50 cc. or less, whereas the average blood loss without an IUD is 35 cc. per menstrual flow.

Although IUDs require only a single motivation for insertion, and a single one for removal, it is important to remind each patient that her IUD should be replaced at specific intervals. The recommended interval for replacement of the devices is one year for the Progestasert, three years for the Copper 7 or T, and five years for the Lippes Loop or the Saf-t-Coil. Some of these latter devices have begun to fragment if left in the uterus for more than five years.

There are several mechanism of action with the IUD[8]:

1. Inflammation leading to spermicidal and embryotoxic effect of cell breakdown products.
2. Enzyme changes such as alterations in the level of carbonic anhydrase.

3. Elevated levels of immunoglobin G.
4. Expulsion of embryo (or early abortion).
5. With copper devices: PG(prostaglandin)E_2 and PG (prostaglandin) $F_{2\alpha}$ are increased on the surfaces of the IUDs, related to increased numbers of macrophages.
6. With progestogen: a continuous progestational or decidual endometrium is produced, incompatible with implantation of the blastocyst.

Among the contraindications for the insertion of an intrauterine device are a history of recurrent pelvic inflammatory disease, a septic abortion or postpartum endometritis within the previous three months, a history of ectopic pregnancy, or acute purulent cervicitis.

Prerequisites for insertion of an IUD include a careful pelvic examination to be sure that the patient is not pregnant already, and a careful sounding of the uterus. If the patient is nulliparous or has a low pain threshold, the physician may wish to insert the IUD during a menstrual period, or he may decide to administer a paracervical block before insertion.

It is a good idea to see patients one to two months after insertion of an IUD to be sure that the device has not become dislodged. If the patient requests removal, and the tail of the IUD is not visible even during a period, a "button-hook" type extractor is most helpful. Proper use of this instrument will either bring down the thread, or assist in extracting a portion of the IUD which then may be easily removed.

Contraceptive foam and condom

The condom is the first of the methods discussed which requires cooperation of the male. When used in conjunction with a spermicidal vaginal foam, it is the best "drugstore method" with a failure rate of only 2 percent.

Postovulatory rhythm

If a woman menstruates precisely every 28 to 30 days, she may assume that she is ovulating on or about day 14 of each menstrual cycle. If she then limits intercourse to between days 18 to 28, that is, to the last 10 days of the menstrual cycle, she will not conceive. Obviously this method requires a high degree of motivation and discipline.

Other methods

Other birth control methods include:

1. A morning-after pill, diethylstilbestrol, 25 mg., may be prescribed with an antiemetic twice daily for five days for a woman who has had unprotected intercourse just before or during the mid-cycle; the medication should be started no later than 48 hours after intercourse. Other estrogens may be equally effective. Because of concern about embryotoxic effects of estrogen (should the patient become pregnant and carry to term), this method has fallen into disfavor during the past few years. It is, however, virtually 100 percent effective, and occasionally it is the method of choice.

2. Postcoital IUD insertion was first recommended by Jack Lippes, M.D., in Buffalo, New York, and this has become the preferred method of "after-the-fact" contraception. It also provides protection for subsequent exposures until the patient has decided on her method of choice.

3. A long-acting progestogen, sterile medroxyprogesterone acetate suspension (Depo-provera), may be given by intramuscular injection, 150 mg., every three months. The occurrence of conception while on this agent is extremely rare; except for irregular bleeding for several months, there are no significant side-effects. Because of the occurrence of mammary nodules in some beagle dogs after huge doses of this drug, the U.S. Food and Drug Administration has not yet approved this medication for contraceptive use. However, experience during the past 10 years with 15,000 women in Chiang Mai, North Thailand, has not revealed any significant complications from this method.[9] The American physician might choose in certain circumstances to use this medication, but if he does so the patient should sign a release form. Two patients for whom medroxyprogesterone acetate (Depo-Provera) might be ideally suited are a mentally retarded girl or a woman with intractable primary dysmenorrhea.

4. When contraception fails, or is not used, millions of women each year choose (or are persuaded) to carry their pregnancies to term. On the other hand, at least 2 million American women each year choose abortion, usually during the first trimester, by means of vacuum and standard curettage, frequently in an outpatient or office setting.

5. Coitus interruptus, withdrawal, is still the number 1 birth control method in eastern Europe, and probably accounts for the high incidence of repeated operative abortion in that part of the world.

6. The cervical cap device is popular in western Europe. It is inserted by the woman in a manner similar to the insertion of a diaphragm, but, unlike the diaphragm, it is placed directly over the cervix. The cervical cap presents a contraceptive agent to the cervix, and it is removed by the woman at the onset of each menstrual period. Misapplications must indeed be very frequent.

7. G. P. Talwar, M.D., in India has for several years experimented with immunologic methods, such as the beta-subunit of chorionic gonadotropin.[10] When combined with tetanus toxoid, and injected intramuscularly in the rhesus monkey, antibodies, which will result in rejection of the fertilized ovum, are formed. The immunity induced by this injection disappears within six to nine months.

8. Because of a general lack of interest among American men, pharmaceutical firms have been reluctant to experiment with male-directed methods. However, it is well known that hormones such as progestogen and testosterone will induce azospermia. So also will ingestion of acetyldiamine, a very inexpensive chemical, which is unfortunately incompatible with alcohol. In the Peoples' Republic of China, experiments are under way with gossypol, a plant extract, which has also induced azospermia.

Female sterilization

There are over 600,000 tubal sterilization operations performed each year in the United States.

Female sterilization has become the most popular method of birth control for women over the age of 35, or when childbearing is complete.

Among American gynecologists, laparoscopy is the most popular approach for interval sterilization, with suprapubic minilaparotomy gaining rapidly in popularity.

In open laparoscopy, a subumbilical scalpel incision is made under direct vision, and the Hasson cannula with its blunt obturator is introduced. This new technique represents a major advance in the safety of laparoscopy since it eliminates the blind introduction of the insufflating needle and the sharp trocar used in conventional laparoscopy.

Although tubal coagulation with unipolar or bipolar circuitry is at present the most widely used laparoscopic method, mechanical methods such as the Yoon band or the Hulka clip are gaining in popularity.

Laparoscopy is preferable to minilaparotomy in women with lower abdominal obesity, fixed uterine retroversion, or suspected adnexal pathologic conditions. In most nonobese patients, however, suprapubic minilaparotomy with Pomeroy tubal ligation, Yoon banding, or clip application is a simpler, safer and less expensive operation. Both minilaparotomy and open laparoscopy may be safely performed under local anesthesia in an outpatient setting[11]

Summary

The low-dose oral contraceptive, in spite of annoying side-effects, is firmly established as the leading reversible method in the United States; the trouble-free diaphragm, a favorite among highly motivated women, has settled into a comfortable second place.

For permanent contraception, double-incision laparoscopic tubal coagulation as an interval procedure is the American favorite, although the Yoon band and the Hulka clip are preferred in some centers. Suprapubic minilaparotomy, long the favorite method of sterilization in the Far East, particularly in India, Thailand, and Japan, has finally crossed the Pacific and is rapidly gaining in popularity in the United States.

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Guillaume Dupuytren, M.D. (1777–1835)

Surgeon of Hôtel Dieu and his American students

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Dupuytren's good fortune was the time of his birth. He was a product of a revolutionary change in France, and, without it, he could never have become a physician. He was born into a family of poverty, the son of a lawyer. He came to Paris to become a physician, and reached his goal, literally, on a crust of bread.

The nineteenth century, remarkable for the rapid rise of laboratory and clinical medicine, was dominated by France in the first half of the century. Its preeminence in medicine resulted from a revolution and devotion to morbid anatomy.

De sedibus causis morborum was published in 1762 by Giovanni Battista Morgagni (1682 to 1772), and stimulated investigation of pathologic organs as the seat of disease and their relationship to clinical symptoms. The French Revolution in 1789, which ended feudalism and established a bourgeois democracy, liberated medical schools from scholasticism and ancient authority, fostered "hospital medicine" as opposed to "library medicine" as a clinical approach to teaching, and, for the first time in the history of the nation, opened the doors of medical schools to poor students seeking to study medicine.[1–6]

Paris hospitals

Students from all over the world converged on the great Paris hospitals noted for distinguished teachers of clinical medicine and abundant opportunities to study disease and morbid anatomy. They were given the stethoscope to explore the chest; taught physical diagnosis by the use of hand, ear, and eye; trained in medical statistics to improve diagnosis and treatment; exposed to mental patients who had been liberated from the cruelty of chains; instructed in morbid anatomy from a plentiful supply of autopsies; guided through hospital wards to study a myriad of diseases; and were freely admitted to surgical wards and operating theaters. For the first time, many foreign students observed the performance of major surgery by master surgeons; this was without the advantage of anesthesia and antisepsis, but notable for skill, dexterity, speed, and knowledge of pathologic and normal anatomy.[1,4–6]

Surgeon of Hôtel Dieu

In medical school Dupuytren excelled in anatomy, 1801. In 1808 he received the prestigious appointment to the surgical staff of the Hôtel Dieu; he was promoted to surgeon in 1812, and two years later, at the age of 37 years, became surgeon-in-chief. This was the highest surgical post in France, and Dupuytren, with his superior endowments, filled it with honor.

Dupuytren was a highly respected anatomist, pathologist, and physiologist; he was the most brilliant surgeon of the pre-Listerian period, and an extraordinarily competent teacher. His skill in surgery of bone cysts, aneurysms, and fractures was legend. He was among the first to excise the mandible and amputate the uterine cervix for malignant conditions; treat aneurysms by compression; section the sterno-mastoid muscle subcutaneously in wry neck; successfully ligate the external iliac and subclavian arteries; and establish a functioning artificial anus. He described fractures and vaginitis in children, congenital dislocation of the hip, and an upper-extremity deformity now known as Madelung's.[5–9]

Dupuytren and his students

Dupuytren's clinic was crowded with students. Americans came from Boston, New York, Philadelphia, Virginia, and Charleston; they constituted a brilliant group, who contributed to a new era of medicine and surgery in their country.[4,10–14]

Thomas Dent Mutter, M.D., (1811 to 1858) fell under his spell, and ever after referred to him in terms of most affectionate admiration.[11]

Oliver Wendel Holmes, M.D., (1809 to 1894), in Paris from 1832 to 1834, records this appraisal in his medical essays: . . . follow me to the Hôtel Dieu, where rules and reigns the master surgeon of his day . . . the illustrious Baron Dupuytren. No man disputed his reign, some envied his supremacy. He is the greatest surgeon of all."[2]

Elisha Bartlett, M.D., (1804 to 1855), a student in Paris from 1826 to 1827, wrote:

He is the unrivaled chief of modern surgery . . . a surgeon of most exalted merit . . . with no rival in France, and perhaps in the world. His visits to the Hôtel Dieu are made before breakfast, commencing at seven o'clock in winter, and an hour or two earlier in summer. At eight he begins his clinical lectures which continues for one hour. After which the operations are performed . . . The visits, lectures, and operations of Dupuytren are attended by a great number of students. He has a noble and striking physiognomy. He is generally grave, and his manner rather cold and forbidding. He is not always the lion . . . talent for playful humor and raillery. Certainly no man can be more winning in his manners . . . so readily calm the fears of a patient when about to submit to an operation."[12,15]

John Collins Warren, M.D., (1788 to 1855), who became professor of surgery at Harvard Medical School, and performed the first surgical operation on a patient under ether anesthesia (October 16, 1846), wrote admiringly: "Dupuytren was of the same age with myself, but much more advanced in science. I . . . was surprised at the minuteness and extent of his knowledge. His operations were so ingenious in plan and brilliant in execution that he was always followed by students."[10,11]

Jonathan Mason Warren, M.D., (1811 to 1867), his son and successor, was in Paris in 1832. In a letter to his father, Jonathan expressed this view: "He is by far the best lecturer of his day, delivering his ideas with wonderful clearness and greatest practical value. Dupuytren performed the operation "for cataract on two patients who were lying in their beds; it was done by the light of a candle. He did it with as much sangfroid as if he were bleeding the men. For brutality I do not know his equal can be found. He thinks nothing of striking his patient and abusing him harshly."[4,11]

William P. Coues, M.D., concluded: "Among the names of the many great surgeons that of Dupuytren stands first."[9]

Peter S. Townsend, M.D., (1796 to 1849), described him: " . . . dark penetrating eye, soft smooth voice, rough coarse manner, and scolding every patient whose bedside he approached, if their answers were not as prompt and laconic as the questions put to them"; and added that he was one of 50 students who followed " . . . so closely at the heels of this great surgeon that I thought they would have devoured him, so much is their respect increased by the fear which he inspires them."[13]

Holmes was impressed by Dupuytren's talent as a fluent, untiring teacher. He described him as "a square, solid man with high full-domed head, who marched through the wards as a lesser divinity . . . oracular in his utterances, indifferent to those around him, sometimes very rough with them. He spoke in low, even tones, with great fluency, and was listened to with that hush of rapt attention, which I have hardly seen in any circle of listeners unless when John Quincy Adams or Daniel Webster were the speakers."[2]

Dupuytren was always surrounded by students who loved and feared him, who shuddered at his violence against patients, and wondered at his malice toward colleagues. Dupuytren's presence carried command, and his words silenced the students crowded around him.

Dupuytren and his colleagues

Dupuytren was not loved, only respected and admired by his colleagues as the "Napoleon" of French surgery. He was rude and intrigued against them. Baron Pierre F. Percy (1754 to 1825), eminent military surgeon, described him as "the first of surgeons and least of men"; and Jacques Lisfranc, M.D., (1790 to 1847), surgeon of La Pitre, labeled Dupuytren "the brigand of the Hôtel Dieu."[5,9]

Patients were terrified in his presence, but, at the same time, venerated him as a deity. It was an experience of awesome reverence when the patient heard Dupuytren declare, coldly, "I will cure you." He maintained utmost control and compassionless composure when a patient died on the table.[9,12]

In 1833, he suffered a slight stroke. In 1835, Dupuytren developed empyema, but refused surgical relief. He expected death, and preferred to die at the hand of God.[13] To the very end, he trusted no rival.

Dupuytren heritage

Since his death, 150 years have elapsed, and physicians continue to identify a fracture of the lower end of the fibula, a splint, and abscess of the right iliac fossa, and flexion of one or two fingers due to palmar fascia contracture with his surname. Dupuytren was born in poverty, studied medicine under conditions of extreme poverty, and died a millionaire and Baron of the Empire. He left an enviable heritage of students.

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Obituaries

Ben Arbor, M.D., of The Bronx, died on November 21 at the age of 78. Dr. Arbor graduated in 1926 from Boston University Medical School. He was a clinical assistant, off service, pediatrician at The Bronx-Lebanon Hospital Center. Dr. Arbor was a Diplomate of the American Board of Pediatrics and a member of the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Peter Rudolph Arnone, M.D., of Brooklyn, died on September 15 at the age of 71. Dr. Arnone received his medical degree from the University of Bologna in 1935. He was an assistant general practitioner at Community Hospital of Brooklyn. Dr. Arnone was a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Benjamin I. Ashe, M.D., of New York City, died on October 15 at the age of 80. Dr. Ashe graduated in 1924 from Cornell University Medical College. He was an attending physician at Bellevue and University Hospitals. Dr. Ashe was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, and a member of the Clinical Society, New York Diabetes Association, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Vitus William Badia, M.D., of New York City, died on October 12 at the age 83. Dr. Badia graduated in 1923 from University and Bellevue Hospital Medical College. He was an honorary senior member of the medical staff at St. Vincent's Hospital and Medical Center of New York. Dr. Badia was a Diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Surgeons, a Fellow of the American College of Obstetricians and Gynecologists, and a member of the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Jacob Birnbaum, M.D., of New York City, died on October 11 at the age of 79. Dr. Birnbaum graduated in 1925 from Columbia University College of Physicians and Surgeons. He was a consulting urologist at Jewish Hospital. Dr. Birnbaum was a Diplomate of the American Board of Urology, a Fellow of the American College of Surgeons, and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Abraham Block, M.D., of Ridgewood, died on October 3 at the age of 77. Dr. Block graduated in 1928 from University and Bellevue Hospital Medical College. He was a Fellow of the American College of Cardiology and a member of the American Geriatrics Society, the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Perry Blumberg, M.D., of New York City, died on November 19 at the age of 74. Dr. Blumberg graduated in 1932 from McGill University Faculty of Medicine. He was a senior clinical assistant in medicine at The Mount Sinai Hospital. Dr. Blumberg was a Diplomate of the American Board of Internal Medicine (Cardiology) and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Irving Caine, M.D., of Yonkers, died on November 27 at the age of 81. Dr. Caine graduated in 1926 from Long Island College Hospital. He was a member of the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Howard Reid Craig, M.D., of Sharon, Connecticut, formerly of New York City, died on September 8 at the age of 86. Dr. Craig graduated in 1919 from Cornell University Medical College. He was a Diplomate of the American Board of Pediatrics and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

William Henry Crull, M.D., of Binghamton, died on December 8 at the age of 76. Dr. Crull graduated in 1932 from Georgetown University School of Medicine. He was a member of the Broome County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Victor Joseph Curtis, M.D., of Larchmont, died on November 12 at the age of 61. Dr. Curtis graduated in 1944 from St. Louis University Medical School. He was an adjunct physician at New Rochelle Hospital Medical Center. Dr. Curtis was a member of the Westchester Academy of Medicine, the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Michael R. Deddish, M.D., of New York City, died on September 18 at the age of 70. Dr. Deddish graduated in 1937 from Ohio State University College of Medicine. He was a rectal and colon surgeon at Memorial Hospital for Cancer and Allied Diseases, consulting surgeon at Doctors

Hospital, a consulting proctologist at Phelps Memorial Hospital Association, and a consulting surgeon at the New York Infirmary and United Hospital. Dr. Deddish was a Diplomate of the American Board of Surgery, a Fellow of the American College of Surgeons, and a member of the New York Academy of Medicine, the New York Gastroenterological Society, and the New York Surgical Society.

Michael Francis Diacovo, M.D., of Kingston, died in 1980. Dr. Diacovo graduated in 1935 from St. Louis University School of Medicine. He was an obstetrician and gynecologist at Benedictine Hospital. Dr. Diacovo was a Diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Obstetricians and Gynecologists, and a member of the Ulster County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph Eidelsberg, M.D., of Silver Spring, Maryland, formerly of New York City, died on October 25 at the age of 84. Dr. Eidelsberg graduated in 1918 from University and Bellevue Hospital Medical College. He was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Lawrence Essenson, M.D., of New York City, died on November 26 at the age of 70. Dr. Essenson graduated in 1935 from New York Medical College. He was an assistant surgeon, off service, at The Mount Sinai Hospital and an associate surgeon, off service, at Harlem Hospital Center. Dr. Essenson was a Diplomate of the American Board of Surgery, a Fellow of the American College of Surgeons, and a member of the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

George Fredric Etling, M.D., of Wassaic, died on November 14 at the age of 77. Dr. Etling graduated in 1928 from the University of Buffalo School of Medicine. He was director and chairman of Wassaic Developmental Center. Dr. Etling was a member of the American Psychiatric Association, the Dutchess County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Salvatore Charles Favata, M.D., of New York City, died on September 4 at the age of 70. Dr. Favata received his medical degree from the University of Bologna in 1940. He was a member of the American Geriatrics Society, the American Academy of Family Physicians, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Seymour Albert Fink, M.D., of New York City, died on November 27 at the age of 65. Dr. Fink received his medical degree from the University of Lausanne in 1941. He was chief and an attending gastroenterologist at the New York Infirmary, an attending physician at Beekman-Downtown Hospital, an assistant physician at Bellevue Hospital, and an assistant attending in medicine at University Hospital. Dr. Fink was a Diplomate of the American Board of Internal Medicine (Gastroenterology), a Fellow of the American College of Gastroenterology, a Fellow of the American College of Physicians, and a member of the New York Academy of Medicine, the New York Gastroenterological Society, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Daye Walker Follett, M.D., of Scarsdale, died on October 12 at the age of 81. Dr. Follett graduated in 1925 from the State University Iowa College of Medicine. He was a member of the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Irving Gersh, M.D., of The Bronx, died on November 4 at the age of 74. Dr. Gersh graduated in 1932 from St. Louis University School of Medicine. He was a member of the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Mahlon Charles Halleck, M.D., of Worcester, died on October 17 at the age of 76. Dr. Halleck graduated in 1931 from Syracuse University College of Medicine. He was an attending physician at the Aurelia Osborn Fox Memorial Hospital. Dr. Halleck was a member of the American Academy of Family Physicians, the Otsego County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph Hartman, M.D., of Kingston, died on March 18 at the age of 74. Dr. Hartman received his medical degree from the University of Vienna in 1932. He was an honorary member of the medical staff at The Kingston Hospital. Dr. Hartman was a Fellow of the American College of Chest Physicians and a member of the Ulster County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Bernard Edward Herman, M.D., of New York City, died on November 6 at the age of 53. Dr. Herman graduated in 1951 from the University of Minnesota Medical School. He was an assistant surgeon in peripheral vascular disease at The Mount Sinai Hospital. Dr. Herman was a Diplomate of the American Board of Surgery, a Fellow of the American College of Angiology, a Fellow of the American College of Surgeons, and a member of the American Geriatrics Society, the New York Society for Cardiovascular Surgery, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

William Hitzig, M.D., of Brightwaters, died on December 7 at the age of 56. Dr. Hitzig graduated in 1948 from Cornell University Medical College. He was an assistant physician at the Good Samaritan Hospital (West Islip) and an assistant physician at Southside Hospital (Bay Shore). Dr. Hitzig was a member of the Suffolk County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Edward E. Hoenig, M.D., of Howard Beach, died on November 16 at the age of 70. Dr. Hoenig received his medical degree from Charles University Prague in 1936. He was an assistant in internal medicine at Queens Hospital Center. Dr. Hoenig was a member of the Clinical Society, New York Diabetes Association, the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Frederic William Holcomb, M.D., of Kingston, died on October 9 at the age of 88. Dr. Holcomb graduated in 1916 from Albany Medical College. He was a consultant in pulmonary disease at The Kingston Hospital and an honorary member of the medical staff at the Benedictine Hospital. Dr. Holcomb was a Fellow of the American College of Physicians, a Fellow of the American College of Chest Physicians, and a member of the Kingston Academy of Medicine, the Ulster County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Charles Arthur Howe, M.D., of Williamsville, died on November 9 at the age of 65. Dr. Howe graduated in 1950 from the University of Buffalo School of Medicine. He was an associate ophthalmologist at Deaconess Hospital (now part of Buffalo General) and an attending ophthalmologist at St. Francis Hospital. Dr. Howe was a Diplomate of the American Board of Ophthalmology and a member of the American Academy of Ophthalmology and Otolaryngology, the Erie County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

John P. Jenkins, M.D., of New York City, died on October 30 at the age of 67. Dr. Jenkins graduated in 1945 from Howard University College of Medicine. He was an assistant in medicine at Harlem Hospital Center. Dr. Jenkins was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Samuel Karelitz, M.D., of New Hyde Park, died on October 2 at the age of 80. Dr. Karelitz graduated in 1923 from Yale University School of Medicine. He was director, emeritus of pediatrics at Long Island Jewish-Hillside Medical Center and a consulting pediatrician at Queens Hospital Center, Flushing Hospital and Medical Center, The Mount Sinai Hospital, and the Huntington Hospital. Dr. Karelitz was a Diplomate of the American Board of Pediatrics and a member of the American Pediatric Society, the New York Academy of Medicine, the American Academy of Pediatrics, The Society for Pediatric Research, the New York Pediatric Society, the New York State Society of Internal Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Word has been received that **Joseph Karp, M.D.,** of Rochester, has died. Dr. Karp received his medical degree from the University of Berlin in 1932. He was an attending physician in general practice at Highland Hospital of Rochester. Dr. Karp was a member of the American Academy of Family Physicians, the Rochester Academy of Medicine, the Monroe County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

William A. Kelly, M.D., of New York City, died on November 8 at the age of 68. Dr. Kelly graduated in 1937 from Columbia University College of Physicians and Surgeons. He was a member of the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Hans S. Kiwi, M.D., of New York City, died on October 14 at the age of 79. Dr. Kiwi received his medical degree from the University of Berlin in 1930. He was an emeritus pediatrician at Lenox Hill Hospital. Dr. Kiwi was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Max Koch, M.D., of Brooklyn, died on November 3 at the age of 73. Dr. Koch graduated in 1933 from St. Louis University School of Medicine. He was an associate general practitioner at Community Hospital of Brooklyn and a staff general practitioner at Kings Highway Hospital. Dr. Koch was a member of the American Academy of Family Physicians, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Word has been received that **Borris A. Kornblith, M.D.,** of Flushing, has died. Dr. Kornblith graduated in 1927 from Columbia University College of Physicians and Surgeons. He was a Diplomate of the American Board of Surgery, a Fellow of the American College of Surgeons, and a member of the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Ernest Kraft, M.D., of New York City, died on October 21 at the age of 81. Dr. Kraft received his medical degree from the University of Berlin in 1923. He was a consulting radiologist at St. Luke's Hospital Center and chief of radiology at New York City Veterans Administration Hospital. Dr. Kraft was a Diplomate of the American Board of Radiology (Radiology), a Fellow of the American College of Radiology, and a member of the American Roentgen Ray Society, the Radiological Society of North America, Inc., the New York Academy of Medicine, the New York Roentgen Society, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Philip J. Kresky, M.D., of Rockville Centre, died on November 13 at the age of 66. Dr. Kresky graduated in 1938 from New York University Medical College. He was an attending pediatrician at Long Island Jewish-Hillside Medical Center and South Nassau Communities Hospital. Dr. Kresky was a Diplomate of the American Board of Pediatrics and a member of the American Academy of Pediatrics, the Nassau Academy of Medicine, the Nassau County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Marianne Kris, M.D., of New York City, died on November 23 at the age of 80. Dr. Kris received her medical degree from the University of Vienna in 1925. She was a member of the American Psychoanalytic Association, the American Psychiatric Association, the American Academy of Child Psychiatry, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Isaac Lewenter, M.D., of Israel, formerly of New York City, died on September 24 at the age of 86. Dr. Lewenter received his medical degree from the University of Lwow in 1922. He was a member of the Clinical Society, New York Diabetes Association, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Walter Leyens, M.D., of Ellicottville, died on November 13 at the age of 84. Dr. Leyens received his medical degree from the University of Freiberg in 1923. He was an honorary member of the medical staff at Salamanca District Hospital. Dr. Leyens was a member of the Cattaraugus County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Max Liebmann, M.D., of New York City, died on November 19 at the age of 84. Dr. Liebmann received his medical degree from the University of Frankfurt in 1921. He was a dermatologist, inactive, at the Vanderbilt Clinic. Dr. Liebmann was a Diplomate of the American Board of Dermatology, Inc., and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Henry Lowey, M.D., of Hollis, died on December 4 at the age of 77. Dr. Lowey graduated in 1927 from Cornell University Medical College. He was a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Arthur Lucas, M.D., of New York City, died on October 18 at the age of 78. Dr. Lucas received his medical degree from the University of Kiel in 1926. He was an assistant physician at Flower and Fifth Avenue Hospitals. Dr. Lucas was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Gastroenterology, a Fellow of the American College of Physicians, and a member of the New York Academy of Gastroenterology, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Arnold Mandel, M.D., of New York City, died on September 30 at the age of 66. Dr. Mandel graduated in 1937 from New York University College of Medicine. He was an associate physician at the Hopsital for Joint Diseases and Medical Center and an associate physician in medicine at Beth Israel Medical Center. Dr. Mandel was a Diplomate of the American Board of Internal Medicine (Allergy and Immunology), a Fellow of the American College of Physicians, and a member of the American Academy of Allergy, the New York State Society of Internal Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

A. W. Martin Marino, M.D., of Brooklyn, died on October 5 at the age of 86. Dr. Marino graduated in 1916 from Long Island College Hospital. He was a rectal and colon surgeon at The Brooklyn-Cumberland Medical Center and a consulting proctologist at Wyckoff Heights Hospital. Dr. Marino was a Diplomate of the American Board of Surgery, a Diplomate of the American Board of Colon and Rectal Surgery, a Fellow of the American College of Surgeons, and a member of the Pan American Medical Association, the American Society of Colon and Rectal Surgery, the New York Academy of Medicine, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Edmund Francis McNally, M.D., of Brooklyn, died on November 3 at the age of 53. Dr. McNally graduated in 1957 from Johns Hopkins University School of Medicine. He was a consultant in medicine at the United States Public Service Hospital (Richmond), an attending in medicine at Kings County Hospital Center, a consultant in medicine at Nassau Hospital, an attending physician at State University Hospital at Downstate Medical Center, and an associate in medicine at Brooklyn Hospital. Dr. McNally was a member of the American Gastro-Enterological Association, the New York State Society of Internal Medicine, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Isidore Kennett Mirkin, M.D., of Long Beach, died on November 29 at the age of 85. Dr. Mirkin graduated in 1919 from University and Bellevue Hospital Medical College. He was a member of the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Emanuel Aaron Novick, M.D., of Mount Vernon, died on September 2 at the age of 66. Dr. Novick graduated in 1942 from Anderson College of Medicine, Glasgow. He was a staff radiologist at The Bronx Veterans Administration Hospital and an adjunct surgeon at the Mount Vernon Hospital. Dr. Novick was a Fellow of the American College of Gastroenterology and a member of the American Academy of Family Physicians, the Radiological Society of North America, Inc., the New York Academy of Gastroenterology, the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

John Brice Plass, M.D., of Kingston, died in November at the age of 66. Dr. Plass graduated in 1938 from New York Medical College. He was a consultant in chest diseases at the Benedictine Hospital. Dr. Plass was a member of the American Thoracic Society, the Ulster County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Phillip Polatin, M.D., of The Bronx, formerly of New York City, died on November 4 at the age of 75. Dr. Polatin graduated in 1929 from New York Homeopathic Medical College and Flower Hospital. He was a consulting psychiatrist at The Presbyterian Hospital. Dr. Polatin was a Diplomate of the American Board of Psychiatry and Neurology (Psychiatry), a Fellow of the American College of Physicians, and a member of the American Psychoanalytic Association, the American Psychiatric Association, the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Maurice Moses Pomeranz, M.D., of New York City, died on October 15 at the age of 88. Dr. Pomeranz graduated in 1915 from University and Bellevue Hospital Medical College. He was a consulting roentgenologist at LaGuardia Hospital, an associate roentgenologist at City Hospital Center at Elmhurst, and a consulting radiologist at the Hospital for Joint Diseases and Medical Center. Dr. Pomeranz was a Diplomate of the American Board of Radiology, a Fellow of the American College of Radiology, and a member of the American Roentgen Ray Society, the New York Academy of Medicine, the New York Roentgen Society, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Anthony J. Povolny, M.D., of Flushing, died on November 29 at the age of 68. Dr. Povolny graduated in 1938 from Long Island College of Medicine. He was an attending surgeon at Flushing Hospital and Medical Center. Dr. Povolny was a Diplomate of the American Board of Surgery, a Fellow of the American College of Surgeons, and a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Benjamin Press, M.D., of Hillsdale, died on November 13 at the age of 86. Dr. Press graduated in 1918 from Long Island College Hospital. He was a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Henry Rapaport, M.D., of Whitney Point, died on December 4 at the age of 77. Dr. Rapaport graduated in 1928 from Boston University School Medicine. He was a member of the Academy of Medicine, the Broome County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Marvin Sarles, M.D., of Buffalo, died on October 22 at the age of 73. Dr. Sarles graduated in 1930 from the University of Buffalo School of Medicine. He was a member of the Erie County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Marie N. Sathmary, M.D., of Brooklyn, died on November 8 at the age of 54. Dr. Sathmary graduated in 1952 from the Chicago Medical School. She was an affiliate in medicine at The Coney Island Hospital. Dr. Sathmary was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

M. Theresa Scanlan, M.D., of New York City, died on November 1 at the age of 89. Dr. Scanlan graduated in 1924 from Columbia University College of Physicians and Surgeons. She was a member of the American Medical Women's Association, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Alfred Schattner, M.D., of Greenlawn, died on November 20 at the age of 84. Dr. Schattner received his medical degree from the University of Bern in 1919. He was a Diplomate of the American Board of Otolaryngology, a Fellow of the American College of Surgeons, and a member of the American Academy of Facial, Plastic and Reconstructive Surgery, the American Academy of Compensation Medicine, Inc., the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Isaac Shapiro, M.D., of Schenectady, died on September 28 at the age of 80. Dr. Shapiro graduated in 1924 from Albany Medical College. He was an attending psychiatrist at Ellis Hospital and a consulting psychiatrist at St. Clare's Hospital and Sunnyview Hospital and Rehabilitation Center. Dr. Shapiro was a Diplomate of the American Board of Psychiatry and Neurology (Neurology), a Fellow of the American College of Physicians, and a member of the Pan American Medical Association, the American Academy of Neurology, the American Psychiatric Association, the Schenectady County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

William Beryl Silberblatt, M.D., of New York City, died on November 4 at the age of 74. Dr. Silverblatt graduated in 1929 from Columbia University College of Physicians and Surgeons. He was an obstetrician and gynecologist at Flower and Fifth Avenue Hospitals and at Metropolitan Hospital Center. Dr. Silberblatt was a Diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Surgeons, and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Isaac Spector, M.D., of Margaretville, died on November

4 at the age of 70. Dr. Spector received his medical degree from the University of Zurich in 1938. He was head of gynecology at Margaretville Memorial Hospital and chief of staff there. Dr. Spector was a Fellow of the American College of Obstetricians and Gynecologists and a member of the Delaware County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

David Boris Teitelbaum, M.D., of Mount Vernon, died on June 20 at the age of 67. Dr. Teitelbaum graduated in 1938 from the University of Vermont School of Medicine. He was an attending physician at Mount Vernon Hospital. Dr. Teitelbaum was a member of the Westchester Academy of Medicine, the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph Nathaniel Thomas, M.D., of Inwood, died on November 22 at the age of 69. Dr. Thomas graduated in 1938 from Meharry Medical College. He was an assistant general practitioner at Peninsula Hospital Center. Dr. Thomas was a member of the American Academy of Family Physicians, the Nassau County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Anthony S. Valvo, M.D., of Port Chester, died on October 31 at the age of 65. Dr. Valvo graduated in 1943 from Middlesex University School of Medicine. He was director of anesthesiology at United Hospital. Dr. Valvo was a Fellow of the American College of Anesthesiologists and a member of the American Society of Anesthesiologists, Inc., the New York State Society of Anesthesiologists, the Westchester Academy of Medicine, the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Bruno Waldman, M.D., of Flushing, died on December 7 at the age of 82. Dr. Waldman received his medical degree from the University of Vienna in 1924. He was a staff general practitioner at Parkway Hospital. Dr. Waldman was a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

William Sage Waldron, M.D., of Nyack, died on December 5 at the age of 70. Dr. Waldron graduated in 1938 from Columbia University College of Physicians and Surgeons. He was a member of the Rockland County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

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LIPOPROTEINS

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The relationship of plasma cholesterol and triglyceride levels to atherosclerosis is ultimately related to the plasma lipoproteins. The lipoproteins, first described by Macheboeuf in 1929, are the vehicle for transporting insoluble lipids from their site of origin to their site of utilization. In the past decade, much has been learned about analysis, synthesis, structure and function of these substances.

Separation of the Various Lipoproteins

The lipoproteins are polydisperse macromolecules which vary in size, hydrated density and chemical composition. Table 1[1] presents the characteristic chemical composition of the four principal classes of lipoproteins of human serum.

The lipoproteins may be separated by electrophoresis, which is usually carried out at a basic pH and which separates the molecules by their electrical charge. They may also be separated and classified by their rates of flotation in a dense salt solution (S_f rates by analytical ultracentrifugation). The S_f rates are a function of lipoprotein shape, size and density. Recently, Rudel *et al.* have developed an effective method of separation based on particle size rather than hydrated density. Circulating lipoproteins can also be separated by polyanion-metal precipitation techniques which permit separation of lower density lipoproteins as a precipitate and leave the higher density lipoproteins in solution. The usual precipitants are heparin or dextran sulfate and the ions most commonly used are Mn^{++} or Ca^{++}.

With the increasing importance of high density lipoprotein (HDL) levels as possible predictors of coronary disease, the availability of simple analytical techniques becomes important.

Functional Relationship of Lipoproteins

In the body, lipoproteins form a dynamic system in which both exchange and net transfer of protein and lipid occur. Catabolism of lipoproteins within the circulation produces new lipoproteins altered in chemical composition and molecular properties.

The functional relationship among lipoproteins is typified by the conversion of very low density lipoproteins (VLDL) to low density lipoproteins (LDL). VLDL transport endogenous triglyceride from the small intestine and they carry about 10% of the total plasma cholesterol. VLDL breakdown occurs in a series of steps during which triglyceride is removed progressively by tissue lipoprotein lipase. The free cholesterol, phospholipid and apoprotein (apo C) are transferred to HDL.

The normal distribution of cholesterol among the plasma lipoproteins is given in Table 2[2].

The lipid-free protein portions of lipoproteins, the apoproteins of the major lipoprotein classes, possess distinct chemical and metabolic features, some of which are summarized in Table 3. Although each apoprotein functions as a lipid transport protein, they differ in lipid-binding properties and in ability to function as cofactors for the lipolytic enzymes responsible for lipoprotein metabolism.

Characteristics of the Hyperlipoproteinemias

In 1967, Fredrickson, Levy and Lees[3] reviewed a systematic approach to diagnosis of hyperlipidemias which they had been exploring for several years. Based on the appearance of plasma and its electrophoretic characteristics, they were able to describe five different types of hyperlipoproteinemia.

The typing of lipoproteinemias (Table 4) permitted a classification based on elevation of specific lipoprotein classes or specific lipids; it also made for a rationalization of treatment since some hyperlipoproteinemias responded to dietary intervention and others to drug treatment. In addition to the primary hyperlipoproteinemias, there are a num-

Table 1[1]
Characteristics of Serum Lipoproteins

	Chylomicrons	VLDL[a]	LDL[b]	HDL[c]
Chemical composition (%)				
Protein	2	10	23	55
Triglyceride	85	50	10	4
Free cholesterol	1	7	8	2
Esterified cholesterol	3	12	37	15
Phospholipid	9	18	20	24
Physical Characteristics				
Diameter (nm)	75-1000	30-80	19-25	4-10
Mol. wt.x 10^{-6} (dalton)	$> 4 \times 10^{2}$	5-6	2 3	0.18-0.36
Density	< 1 006	0 95-1.0006	1 006-1 063	1.063-1.21
Electrophoresis	Origin	pre β	β	α
S_f (ultracentrifuge)	400-10^{6}	20-40	0-20	HDL

[a] VLDL, very low density lipoprotein
[b] LDL, low density lipoprotein
[c] HDL, high density lipoprotein

Table 2[2]
Total Cholesterol (mg/dl) and Cholesterol (mg/dl)
Distribution Among Plasma Lipoproteins of Normal Subjects*

Age	Total		VLDL		LDL		HDL	
	Male	Female	Male	Female	Male	Female	Male	Female
20-24	162	162	14	12	103	98	45	52
25-29	179	174	17	12	117	106	45	56
30-34	193	174	21	11	126	109	46	55
35-39	201	188	24	14	133	119	43	55
40-44	205	196	26	14	136	125	44	57
45-49	213	205	24	17	144	130	45	58
50-54	213	222	27	17	142	145	44	60
55-59	215	231	22	21	145	150	48	60

*Sample size 2450 white males and 1640 white females not on hormones

Table 3
Characteristics of Apolipoproteins

Apolipoprotein	Density Class	Mol. Wt.	Function
AI	HDL	28,000	LCAT Activator*
AII	HDL	17,000	—
B	VLDL, LDL	250,000	—
CI	VLDL, HDL	6,500	LCAT and Lipase Activator
CII	VLDL, LDL(?), HDL	~10,000	Lipase Activator
CIII	VLDL, HDL	10,000	Lipase Inhibitor (?)
D	HDL_3	~20,000	Cholesterol Ester Transport
E	VLDL, LDL, HDL	32-3,900	Cholesterol Transport (?)

* LCAT, lecithin-cholesterol acyltransferase

Table 4[3]
Primary Hyperlipoproteinemias

Type	Lipoprotein Elevation	Appearance of Plasma	Plasma	Lipids
			Cholesterol	Triglycerides
I	Chylomicrons +++	Creamy layer over clear or slightly turbid intranatant	Normal to +	+++
IIA	LDL +++	Clear	+	Normal
IIB	LDL +++ VLDL +	Slightly to moderately turbid	+	++
III	Floating β*	Turbid to opaque	+	++ to +++
IV	VLDL +++	Turbid to opaque	Normal to +	++ to +++
V	Chylomicrons ++ VLDL +++	Creamy layer over turbid or opaque intranatant	++	+++

*Abnormal lipoprotein of density < 1.006 g/ml with β mobility. a pre-β migrating lipoprotein is also present
Elevation +, slightly, ++, moderately, +++, markedly

ber of secondary lipoproteinemias due to excess caloric intake, alcoholism, diabetes, nephrosis, myxedema, obstructive liver disease and pancreatitis.

Dietary regimen, as part of the total treatment of the hyperlipoproteinemias, is determined by the Type:

Type I.

The defect appears to be inability to clear fat from the blood, hence reduced fat intake.

- Limit fat intake (25-35 g/day)
- No alcohol

Type IIA.

High cholesterol content of blood is symptomatic of this defect.

- Increase polyunsaturated fat
- Reduce cholesterol
- Limit alcohol

Type IIB.

Both cholesterol and triglycerides are elevated in Type IIB.

- Maintain ideal weight
- Limit carbohydrate (40% of calories)
- Normal fat (40% of calories)
- Increase polyunsaturated fat
- Reduce cholesterol
- Limit alcohol

Type III.

As in Type IIB. Maintain ideal body weight.

Type IV.

Synthesis of triglycerides must be reduced.

- Maintain ideal weight
- Limit carbohydrate (35-40% of calories)
- Increase polyunsaturated fat
- Normal cholesterol (up to 500 mg/day)
- Limit alcohol

Type V.

Synthesis of triglycerides must be reduced.

- Maintain ideal weight
- Normal carbohydrate (48-53% of calories)
- Reduce fat (25-30% of calories)
- High protein (21-24% of calories)
- Limit cholesterol (300-500 mg/day)
- No alcohol

In addition to diet, cholesterol-lowering drugs, such as bile acid-binding resins (cholestyramine, colestipol), D-thyroxine, nicotinic acid, probucol, atromid-S (clofibrate) and β-sitosterol have been used in the treatment of Type II-V hyperlipoproteinemias. The effectiveness of these drugs has been variable.

Lipoproteins and Heart Disease

In the early 1950s, Barr and his coworkers examined the relationships between the major lipoproteins of plasma and susceptibility to coronary disease. They found that the ratio of α/β liproprotein |(HDL/LDL by today's nomenclature) was higher in the plasma of young women (18-35 years) than in that of young men even though their cholesterol levels were quite similar. The young women were at much lower risk of coronary disease. Barr et al. also found that the ratio of α/β lipoprotein was much lower in plasma of subjects with diabetes, nephritis or coronary disease than in normal subjects. Olson reflected on the observation that the susceptibility of animal species to experimental atherosclerosis was more a function of their α/β ratios than of their normal cholesterol levels.

A few years ago, Miller and Miller reassessed the data concerning coronary disease and HDL/LDL levels and reached a conclusion similar to that of Barr. In the ensuing years, much had been learned of HDL and LDL structure and metabolism. Tissue culture experiments suggested that LDL essentially caused entry of cholesterol into the cell and HDL enhanced egress. Other studies showed that very old people exhibited increased HDL levels, some hypolipidemic drugs raised HDL levels and exercise, such as jogging, increased HDL levels as did moderate drinking.

Despite these encouraging data, it is too early to conclude that the HDL/LDL ratio is the ultimate diagnosis or that increasing HDL is the simplest therapeutic modality. Much has yet to be learned about the mechanisms by which HDL is elevated (liver toxins such as chloroform or dioxin also elevate HDL levels). Furthermore, HDL can now be subfractionated into HDL_2, which is more prevalent in female plasma, and HDL_3, which is found in male plasma. HDL_2 is larger, lighter and carries more lipid and less protein than HDL_3 At this writing, there are few data concerning the effects of exercise, alcohol or drugs on HDL_2 or HDL_3 levels.

We have entered an era in which we are learning about cellular mechanisms of LDL uptake. Work on HDL metabolism is not as well delineated but it, too, is making great strides. The use of simple methodologies to give accurate assessments of circulating lipoproteins and their diagnostic interpretations may not be too far in the future.

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Medical Meetings

The 2nd annual internal medicine board review course

The second annual internal medicine board review course will be held January 21 through June 17, 22 consecutive Wednesday evenings, 7:00 p.m. to 9:30 p.m., Nurses Auditorium, Queens Hospital Center, 82-68 164th Street, Jamaica, New York.

The course is sponsored by The Department of Medicine, Long Island Jewish-Hillside Medical Center/Queens Hospital Center Affiliation and the Health Sciences Center, State University of New York at Stony Brook. The program directors are Lawrence Sherman, M.D., and Catherine Marino, M.D.

This Continuing Medical Education offering meets the criteria for 66 hours of credit in Category 1 from the LCCME and the Physician's Recognition Award of the American Medical Association.

For further information: Continuing Education Coordinator, Long Island Jewish-Hillside Medical Center; Queens Hospital Center Affiliation, New Hyde Park, N.Y. 11042; telephone: (212) 470-2114.

Two-day symposium on anesthesiology

"Act II (Anesthesia Care Team II)" will be presented Saturday, February 28 at 8:00 a.m., and Sunday, March 1 at 8:15 a.m., in Lecture Hall I, Downstate Medical Center, 450 Clarkson Avenue, Brooklyn, N.Y. 11203. The moderators will be William A. Shucart, M.D.; Bernard Jaffe, M.D.; Erwin Lear, M.D.; and Raymond Villanueva, M.D.

The symposium has been approved for 12 credit hours in Category 1 of the Physician's Recognition Award of the AMA and for 12 CME credit hours by the American Association for Nurse Anesthetists Continuing Education Committee.

For registration, contact: (212) 270-1935.

Annual lecture

The 12th Annual Nathan W. Chaikin Lecture in Gastroenterology titled "Pathogenesis and Prevention of Stress Ulceration" will be presented by William Silen, M.D., Johnson & Johnson Professor of Surgery, Harvard Medical School, Surgeon-in-Chief, Beth Israel Hospital, Boston, Massachusetts, under the sponsorship of the Sarah C. Upham Section of Gastroenterology, New York Medical College, Westchester County Medical Center, Valhalla, N.Y. The lecture will take place from 12–1 p.m., on Wednesday, March 18, 1981, at the Mental Retardation Institute Auditorium in Valhalla.

Further information may be obtained from the Section of Gastroenterology (914) 347-7337.

Material for inclusion in the medical meetings section must be received eight weeks prior to publication date.

Carcinogenesis of the major cancer sites

"Carcinogenesis of the Major Cancer Sites" will be the theme of a State of the Arts Conference sponsored by the American Cancer Society, Long Island Division's professional education committee on Wednesday, March 25, 8:30 a.m. to 4:00 p.m. at the Nassau Academy of Medicine, Garden City. The plans are partially completed and we are pleased to announce the following will give presentations: Edward J. Beattie, M.D., General Director and Chief Operating Officer, Memorial Sloan-Kettering Cancer Center, N.Y.C.; John J. Dowling, M.D., M.P.H., Commissioner, Nassau County Department of Health; William C. Topp, Ph.D., Senior Staff Investigator, Cold Spring Harbor Laboratory, Cold Spring Harbor; Lois M. Cahill, Coordinator Industrial Cancer Education Service, Canadian Cancer Society, Ontario Division; and Abby Block, M.S.R.D., Head Clinical Diet-Nutrition Specialist, Memorial Sloan-Kettering.

For more information please telephone Clare J. Rose, R.N., M.P.H., Professional Education Coordinator at (516) 420-1111, ext. 531.

11th annual pediatric board review course

The 11th annual pediatric board review course will be held March 4 through June 6, 14 consecutive Wednesday evenings in the Teaching Center Auditorium, Long Island Jewish-Hillside Medical Center, New Hyde Park, N.Y.

The course is sponsored by the Department of Pediatrics, Long Island Jewish-Hillside Medical Center and the program director will be I. Ronald Shenker, M.D.

This continuing medical education offering meets the criteria for 28 credit hours in Category 1 from the LCCME and from the Physician's Recognition Award of the American Medical Association.

For further information contact: Continuing Education Coordinator, Long Island Jewish-Hillside Medical Center, New Hyde Park, N.Y. 11042; telephone (212) 470-2114.

American Academy of Compensation Medicine

American Academy of Compensation Medicine announces its annual two-day Symposium, March 25–28, 1981, Sheraton Center (Americana Hotel), New York City. Back, burns, sports medicine, and microsurgery will be discussed by competent participants. Approved for 14 hours CME Category I credits. For information and program write to American Academy of Compensation Medicine, Box 336, New York, N.Y. 10016.

New York State Academy of Family Physicians

The annual convention of the New York State Academy of Family Physicians will be held May 15 to 20 at Kutsher's

Country Club, Monticello, New York. The Congress of Delegates will meet on May 15, 16, and 17, and the scientific assembly will be May 18, 19, and 20.

Technology and assessment forum

The National Center for Health Care Technology in collaboration with the National Heart, Lung, and Blood Institute, National Institutes of Health, is sponsoring a "Technology Assessment Forum on Coronary Artery Bypass Surgery: Economic, Ethical, and Social Issues," April 21 to 23, Sheraton Washington Hotel, 2660 Woodley Road at Connecticut Avenue N.W., Washington, D.C. 20008.

For technical information, contact: Michael Eliastam, M.D., Special Assistant to the Director, National Center for Health Care Technology, Parklaw Building, Room 17A-29, 5600 Fishers Lane, Rockville, Maryland 20857; telephone (301) 443-4097.

For administrative information, please contact: Elaine M. Kokiko, Executive Vice President, Moshman Associates, Inc., 6400 Goldsboro Road, Washington, D.C. 20034; telephone (301) 229-3000.

11th international congress for suicide prevention and crisis intervention

The 11th international congress for suicide prevention and crisis intervention on "Depression and Suicide" will be held in Paris, France, July 5 to 8.

All inquiries concerning scientific program must be sent to General Secretary, Dr. J. P. Soubrier, Congress I.A.S.P., 1981, 25, rue de la Faisanderie—75116 Paris, France; telephone: 704.99.33—Telex ASCLEP 204716F.

37th annual congress

The 37th Annual Congress of the American College of Allergists will be held April 4–8, at the Sheraton-Washington Hotel, Washington, D.C.

For the physician in practice, the College will offer a complete program to report the latest developments in diagnosis and treatment in the field of clinical allergy and immunology.

Credit for Category I, Continuing Medical Education, for the AMA's Physician's Recognition Award will be granted on an hour-for-hour basis.

For further information, write or call: Shirley Schoenberger, Executive Secretary, American College of Allergists, 2141 Fourteenth St., Boulder, Co. 80302; telephone: 303/447-8111.

Medical-travel seminar workshop

The Medical Society of the County of Monroe is presenting a medical-travel seminar workshop for all members and families of the Medical Society of the State of New York departing New York May 18 and returning May 31. The British Isles Voyage aboard the *Regina Maris* qualify under the 1976 Tax Reform Act as tax deductible for professionals who attend Seminars & Symposia, Inc.

The Seminars & Symposia Workshop Schedule consists of a minimum of three hours of class each day and attendance at all sessions is mandatory.

As an organization accredited for continuing medical education, Seminars & Symposia, Inc., designates this continuing medical activity as meeting the criteria for 28 credit hours in Category I of the Physician's Recognition Award of the American Medical Association.

For complete information: contact the Medical Society of the County of Monroe, 1441 East Avenue, Rochester, New York 14610.

Gauze face mask is aid to asthmatic athletes

Asthmatic joggers and skiers can safely enjoy their sports without fear of exercise-induced asthma attack by wearing a simple surgical face mask.

This is the finding of a research study conducted at the National Asthma Center, Denver, reported in the November 14 Journal of the American Medical Association.

A. Manon Brenner, M.D., of the Colorado center, had noted that exercise-induced asthma could be prevented by breathing warm, fully humidified air during exercise. The problem was that it was not practical to wear or carry a source of warm, damp air while running, skiiing, or otherwise engaging in sports and games.

The surgical face mask, a simple sheet of gauze covering the mouth and nose, was evaluated in 10 asthmatic children. Exercising on a treadmill with the mask, the children did not have asthma attacks. Without the mask, many suffered asthmatic episodes.

The mask serves to warm the outside air and thus eliminate the heat loss from rapid breathing of outside air. It is heat loss primarily, rather than water loss, that causes breathing difficulties, Dr. Brenner says.

"A simple face mask appears to be effective in attenuating exercise-induced asthma, and may provide a practical, nondrug alternative for asthmatic runners and skiers," he says.

Medical News

International Year of Disabled Persons (IYDP)

Progressively, over the last few decades, advances in medicine have increased the life expectancy and potential of persons with all varieties of disabilities. Simultaneously there has been a development of social consciousness and awareness that is spreading over our shrinking planet. The status of the handicapped person must be seen in the overall context of the developing awareness of ourselves as fellow voyagers in the same craft. It is the same general forces that have produced the development of the third world, an appreciation of the importance of preserving our ecology and the awesome need to truly appreciate the brotherhood of man that has culminated in our area of interest in the proclamation by the United Nations, designating 1981 as the International Year of Disabled Persons.

To this purpose, President Jimmy Carter established the U.S. Council for the International Year of Disabled Persons and in so doing, Mr. Carter stated:

> "We must seize the opportunity afforded by the observance of this International Year to increase public recognition of what remains to be done before handicapped persons are permitted full participation in the life of their communities. We need to erase residual prejudices and discriminatory actions and eliminate, where possible, the remaining barriers that still block their path.
>
> "Let us resolve to do this in a spirit of cooperation and understanding of each other's needs so that the International Year of Disabled Persons will achieve not only these objectives, but will bring about a new era of universal respect for human rights including the rights of disabled people."

The stated mission of the U.S. Council for the International Year of Disabled Persons is to promote "the full participation in the life of our society of America's citizens with physical and mental disabilities. Building on the progress of the past decade, the Council will work together with community and citizen groups, business, government, and private organizations to strengthen public understanding of the still unmet needs and potential contribution of these 35 million people. The Council will foster the "partnership" of Americans from all walks of life in furthering the following long-term national goals of our citizens with disabilities:

- —Expanded Educational Opportunity;
- —Improved Access to Housing Buildings, and Transportation;
- —Greater Opportunity for Employment;
- —Greater Participation in Recreational, Social, and Cultural Activities;
- —Expanded and Strengthened Rehabilitation Programs and Facilities;
- —Purposeful Application of Biomedical Research Aimed at Conquering Major Disabling Conditions;
- —Reduction In the Incidence of Disability Through Accident and Disease Prevention;
- —Increased Application of Technology on Behalf of Persons With Disabilities;
- —Expanded International Exchange of Information and Experience to Benefit all Persons with Disabilities.

As health care professionals concerned with disabled persons, it is of utmost importance that each and every physician participate in some way in promoting this international effort. Communities throughout the nation are developing programs under the auspices of local officials, mayor's offices for the handicapped, state ombudsmen, and the numerous organizations of disabled persons, and it behooves each of us to contribute our talents to these programs and when necessary, initiate some form of participation in our own communities.

NSNA scholarship program more than triples since '79

The amount of scholarships to be awarded for the 1981 NSNA (National Student Nurses' Association) Scholarship program now totals $48,200 to be awarded to 43 students of nursing. Five additional scholarships have been added to the program.

Applications are available from the National Student Nurses' Association, Inc., Ten Columbus Circle, New York, New York 10019. For more information contact: Barbara Jo Nerone, 212-724-3346.

AAP announces campaign to combat leading child killer

A major new program designed to protect babies and children as passengers in motor vehicles was announced by the American Academy of Pediatrics at its Annual Meeting, October 25–30, in Detroit, Michigan.

Called "First Ride . . . Safe Ride," the program will encourage the use of infant and child car safety seats for babies on their first ride home from the hospital and on every ride thereafter.

Car accidents are the number one preventable cause of death for children from birth onward, the Academy said. Each year, nearly 1,000 children between birth and age 5 are killed in car crashes, and 60,000 are injured, some permanently crippled.

The "First Ride . . . Safe Ride" program will aid pediatricians in every community in dealing with the problem of child vehicle safety. Pediatricians will seek the protection of babies and children by alerting their parents to the life-or-death value of infant and child safety seats.

Pediatricians will also work with hospitals to urge parents to make their baby's first ride home from the newborn nursery a safe one.

The traditional "babe in arms" position of carrying newborns home from the hospital has been dubbed the

Material for inclusion in the medical news section must be received eight weeks prior to publication date.

"child crusher" method by child safety experts. In the event of a car crash or sudden stop, the infant can be crushed between the dashboard and the mother as she moves forward on impact, or can be torn from the mother's grasp.

The Academy estimates that nine out of ten child deaths in car accidents can be prevented, and that 60–70 percent of injuries can likewise be prevented by the use of infant and child safety seats.

"The highway epidemic of child auto fatalities has continued unabated since the 1930s," said Dr. James Holroyd, of La Canada, California, chairman of the Academy's Committee on Accident and Poison Prevention.

"More children die each year as a result of car crashes than do from polio, diphtheria, rubella, mumps, and measles. Car crashes pose a greater danger to children today than do any of these diseases," he said.

"The Academy strongly urges that all children be immunized against preventable diseases," Dr. Holroyd said. "The 'vaccine' to combat infant and child car deaths is the proper use of safety seats and seat belts."

Clinic for older women

A clinic designed to provide specialized gynecologic screening and care for elderly women has opened at Erie County Medical Center under the auspices of the State University at Buffalo's Department of Gynecology/Obstetrics.

The clinic, which meets Thursdays from 9:00 to 11:30 a.m., aims to attract the elderly who do not already get routine gynecological care, says Martin Wingate, M.D., clinic director and professor of gynecology/obstetrics at U/B.

"Many elderly women erroneously believe gynecology problems cease with the end of their childbearing years and fail to seek routine checkups," Dr. Wingate points out. Also, some of the women in this age group are embarrassed to get pelvic examinations and others are physically unable to get to the practitioner's office.

Consequently, many elderly women suffer from treatable gynecologic problems, Dr. Wingate says.

"Although most gynecology problems occur during childbearing years, there are others associated primarily with the aging process," he notes. "Breast and uterine cancer may also develop and go needlessly undetected without the routine gyn screening," Dr. Wingate adds.

While most elderly women get adequate general medical care, they often have a tendency to overlook routine gynecologic care.

"This is especially true if the woman suffers from painful or limiting conditions, such as arthritis, and finds getting up on an examining table nearly impossible," Dr. Wingate says.

Nursing home patients, elderly women who live alone, or those who otherwise may not have access to routine gyn screening are the target group for whom the clinic was designed, Dr. Wingate points out. The patient's primary physicians will receive reports from the gynecologists and be notified of recommended treatment for gyn problems.

Staffed with private attending gynecologists who volunteer their time, nurses, and social workers, the clinic will also draw on expertise from urologists at U/B and ECMC as well as geriatric specialists involved in the U/B Geriatrics/Gerontology Division headed by Dr. Evan Calkins.

While the clinic is concerned primarily with screening and treatment, the staff will seek to help the elderly patients reaffirm their femininity. It's easy, Dr. Wingate says, for these patients to forget they are women.

Some local nursing homes have indicated an interest in having their patients screened at the clinic for gyn disorders. But an elderly woman who does not routinely get gyn care may come to the clinic on an appointment basis. Transportation of the infirm to the clinic may be arranged by calling the social worker at the clinic, Dr. Wingate notes.

"My team in England once had a 90-year-old patient, bedridden from uterine prolapse. She was virtually limited to her home because of discomfort and incontinence," Dr. Wingate recalls. Following a vaginal hysterectomy, the lady was able to live a more normal and active life.

"There may be many of these types of patients who believe their problem is something they must accept and learn to live with when, in fact, it can be effectively treated," he says.

Pediatricians warn against honey as baby food

Giving honey to your infant as baby food may be associated with infant botulism, according to a statement released by the American Academy of Pediatrics.

Botulism is a form of food poisoning caused by a neurotoxin from the bacterium, c. *botulinum*. It can produce severe muscle weakness and even death.

The Academy's Committee on Nutrition and Committee on Infectious Diseases endorsed a recommendation by the National Centers for Disease Control in Atlanta that honey should not be given to infants younger than six months old.

In studies conducted by public health authorities, honey was identified as a risk factor in some of the cases of botulism reported, although many children who developed botulism had no history of eating honey.

Until more data is gathered, the Academy recommends that honey not be fed to infants.

Health statistics show infant death rate lowest in U.S. history

The infant death rate currently is the lowest in U.S. history, according to a story in the December issue of *Pediatrics*, the monthly scientific journal published by the American Academy of Pediatrics.

The provisional figure of 12.8 deaths per 1,000 live births recorded for the 12 months ending in June, 1980, shows a continuing downward trend for infant mortality: the 1979 rate was 13.0 infant deaths per 1,000 live births, and the 1978 rate was 13.8. By comparison, the infant mortality rate in 1930—the year in which the Academy was founded—was 64.6 deaths per 1,000 live births.

In an article by Myron E. Wegman, M.D., of the School of Public Health, University of Michigan, the declining infant death rate for 1979 as compared to 1978 is attributed in part to the reduction in deaths caused by birth trauma and hypoxia—a problem related to the development of the respiratory system—although most causes of infant death saw a general decline.

When comparing current statistics with data on infant death in 1930, Dr. Wegman found that striking declines have occurred in infant deaths from diarrheal diseases, infectious diseases, and pneumonia.

Dr. Wegman reported that the estimated highest infant mortality rate by state of residence occurred in Mississippi (17.8 per 1,000 live births) and in the District of Columbia (19.3); the lowest occurred in Maine and New Hampshire (each with 10.4).

On an international level, the U.S. ranked 16th lowest among 25 nations with populations of 2 million or more reporting data for 1978—the latest year for which complete data are available.

Data for Dr. Wegman's article came from the National Center for Health Statistics and from the Statistical Office of the United Nations.

Physicians honored by national group

The American College of Physicians (ACP) announces the election of 268 new Fellows. The physicians will be formally inducted at the College's Annual Session in Kansas City, April 6–9.

Election to Fellowship in the 65-year-old College signifies that a physician has been recognized by his colleagues as having attained a high level of scholarship and achievement in internal medicine. Usually, Fellows have authored articles in medical journals, presented papers at medical meetings, are involved in the teaching of young physicians and medical students, and have made other notable contributions to the advancement of medical science and practice.

The purpose of the ACP is to upgrade the quality of medical care, education, and research through rigorous membership requirements and continuing medical education programs. Three groups of similar size comprise the ACP's 50,000 membership. One consists of Associate Members who are physicians-in-training or medical students; another of practicing physicians known simply as Members; and the third of Fellows.

Fellowship in the American College of Physicians entitles physicians to use the initials FACP after their names.

New Fellows elected November, 1980 are: T. Bharathan, M.D., Victor Burnett, M.D., Stephen J. Seligman, M.D., and Eleanor Z. Wallace, M.D., *Brooklyn;* George J. Bosl, M.D., *East Norwich;* Joseph L. Mollura, M.D., *Great Neck;* Andrew J. Adler, M.D., *Great Neck Estates;* Irving J. Farber, M.D., *Jamaica;* Roy A. Pizzarello, M.D., *Manhasset;* Jen C. Wang, M.D., *New Hyde Park;* Junichi Iwai, M.D., *Upton;* and Ernesto A. Jonas, M.D., *Woodbury,* from New York Downstate II.

Fellowships conferred during ACCP meeting

The American College of Chest Physicians (ACCP) inducted 123 physicians as new Fellows during the convocation ceremonies at the ACCP's 46th Annual Scientific Assembly held recently in Boston.

Physicians inducted from New York State were: Avinash N. Bapat, M.D, William A. Briscoe, M.D., and Fouad E. A. Lajam, M.D., *New York City;* Nagi J. Bustros, M.D., and Antoine V. Fernaine, M.D., *Brooklyn;* Michael P. Cesa, M.D., *Smithtown;* Joseph S. Chiarmonte, M.D., and Gary E. Veith, M.D., *Bay Shore;* Chitoor S. Govindaraj, M.D., *Staten Island;* Manoon Lee, M.D., *East Hills;* Abraham D. Merav, M.D., and Sriram Naidu, M.D., *The Bronx;* Alfredo S. Quintans, Jr., M.D., *New Windsor;* Alvani D. Santos, M.D., and Mark J. Utell, M.D, *Rochester;* and J. Richard Tyner, M.D., *Albany.*

Here and there

Awarded: Leslie S. Libow, M.D., medical director, the Jewish Institute for Geriatric Care, New Hyde Park, and professor of medicine, State University of New York at Stony Brook, the 1980 Kent Award of the Gerontological Society.

Elected: Richard Ament, M.D., Williamsville, to the Board of the Council of Medical Specialty Societies (CMSS) at the annual meeting November 11, 1980.

Honored: Three New York area physicians honored by University of Health Sciences/The Chicago Medical School as distinguished alumni: Sheldon P. Rothenberg, M.D., chief, hematology/oncology, Brooklyn VA Hospital and professor of medicine, State University of New York Downstate Medical Center, class of '55; Alex Norman, M.D., director of radiology, Hospital for Joint Diseases Orthopaedic Institute, professor, the Mount Sinai School of Medicine, and attending physician, Beth Israel Medical Center, class of '47; and A. Louis Southren, M.D., professor of medicine, New York Medical College, class of '55.

Named: Richard A. Rifkind, M.D., former director of the Cancer Center at Columbia Presbyterian Medical Center, named director of the Sloan-Kettering Division of the Graduate School of Medical Sciences.

Impotence may be symptom of undiscovered diabetes

Sexual impotence might be a sign of a previously unrecognized diabetes in men, says a report in the November 28 Journal of the American Medical Association.

Some 12 percent of men troubled with sexual impotence were found to have previously undiagnosed diabetes in a study conducted at Queens Hospital Center, Jamaica, N.Y.

It had been known for some years that as many as 50 percent of men with diabetes complained of impaired sexual function, Stanley Deutsch, Ph.D., of the School of Medicine, State University of New York at Stony Brook, points out.

Dr. Deutsch examined 58 men with sexual impotence and found that 12 percent of them had cases of diabetes that had not been discovered by standard tests.

"When a man complains of impotence, diabetes must be considered as a possible cause," he declares.

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Hearing aid report

To the Editor: Hearing Aids for distant hearing were never invented.

Many of our senior citizens suffer from hearing loss. They usually complain they hear but can't make it out. This is probably due to the fact that certain tones they hear are markedly diminished, creating confusion.

When a hearing aid is used at a minimum increase of loudness, one hears better in ordinary conversation, but, when the volume of the aid is increased for distant hearing, noise and confusion are created. The loudness of the tones one hears are increased in the same ratio as that of the tones that cannot be heard without the aid.

It is sad to say that millions of our senior citizens with hearing defects have never enjoyed a theatre or movie performance. However due to the advent of the INDUCTION LOOP AMPLIFICATION, which we now encourage to be installed in theatres and movie house, they are now able to hear and enjoy a performance.

As the above is limited to theatres, let us interest ourselves in finding means to improve distant conversation hearing.

I would like to suggest a possibility that might be of some help. It consists of modified portable tape recorder, receiving distant conversation, and transferring it SIMULTANEOUSLY to a plug outlet, into which ear plugs can be inserted, thus conveying conversation at close range.

LOUIS K. PITMAN, M.D.
120 Pond Road
Woodbury, N.Y. 11797

Appetite suppressant

To the Editor: Recently, a 36-year-old female medical assistant was seen in our hospital's emergency room complaining of intermittent abdominal pain of three days' duration with severe exacerbation three hours prior to admission. The pain was localized between the xiphoid and the umbilicus. The abdomen was slightly distended, tympanitic, and there was diffuse, severe, upper abdominal tenderness to light and deep palpation with equivocal rebound tenderness. There was no history of trauma, unusual food ingestion, and there was no fever or other systemic complaint. Careful review of the history for this 5′2″, 143-pound female revealed that she had been using Dexatrim for appetite suppression. Neither the remains of the package of medication she carried nor the usual hospital references (for example, PDR) gave a formula for the medication. A call to the New York City Poison Control Center elicited a rapid response that this type of complaint was well known to the Poison Control Center. Dexatrim comes in two strengths and contains phenylpropanolamine and caffeine.

The patient was treated with antacids for apparent gastroenteritis and the symptoms regressed over 72 hours. The episode is brought to the attention of other physicians who may deal with this clinical problem.

ROBERT C. WALLACH, M.D.
Beth Israel Medical Center
Department of Obstetrics and Gynecology
10 Nathan D. Perlman Place
New York, N.Y. 10003

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The QUESTIONNAIRE, prepared by the patient, elicits a 30 day intake history of the foods currently being eaten, their frequencies and volumes. Additional data is gathered regarding the patient's living pattern and daily activity level.

It is clear, simple and structured for easy answering requiring only 15–20 minutes to prepare; yet is designed to yield a remarkedly detailed and individualized profile of the patient's current dietary intake with a minimum of recall effort.

The NUTRITIONAL ANALYSIS REPORT is presented in the food exchange format detailing the patient's average daily intake of exchange units, calories, carbohydrates, protein, fat, cholesterol and other dietary components including saturated and unsaturated fat ratios. Comparisons are made to the Recommended Dietary Allowance (RDA) and personalized nutritional requirements based on activity level.

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(continued from page 170)

Robert Stafford (Vt.)
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Dan Quayle (Ind.)
Don Nickles (Okla.)
Jeremiah Denton (Ala.)
Paula Hawkins (Fla.)
Lowell Weicker (Conn.)
John East (N.C.)

Harrison Williams (N.J.)
Jennings Randolph (W.Va.)
Claiborne Pell (R.I.)
Thomas Eagleton (Mo.)
Donald Riegle (Mich.)
Howard Metzenbaum (Ohio)

On the House side, Representative Dan Rostenkowski (D., Ill.) assumes the chairmanship of the House Ways and Means Committee in the next Congress rather than take a leadership Whip post. Present chairman Al Ullman (D., Ore.) was defeated for reelection.

* * *

The nomination of former Senator Richard Schweiker (R., Pa.) to be Secretary of HHS (Health and Human Services) brings to the post a man widely versed in health affairs.

The 54-year-old Schweiker, who had announced last year that he would not seek re-election to the Senate, was the front runner from the start in speculation about the HHS post. Schweiker has been a close friend of Reagan's since he agreed to be his vice presidential running mate in event Reagan had captured the GOP nomination four years ago.

As ranking Republican member on the Senate Labor and Human Resources Committee and on its Health subcommittee, Schweiker has an extensive knowledge of health legislation and of the Federal health structure.

Schweiker has expressed strong convictions about certain aspects of health, notably reservations about the extent of aid for medical education and for the National Health Service Corps.

In an interview last summer, Schweiker said a Reagan Administration will not endorse national health insurance or hospital cost containment and will move to "deregulate."

Schweiker is the author of a "pro-competition" plan that would eliminate most of the present tax deductions for private health insurance in an effort to encourage more cost-consciousness by business and consumers.

"You certainly will see a stop to the rush to federalize things," Schweiker said. But he cautioned that reversing the trend will take time. "There is so much momentum that it will take acts of Congress to repeal some programs," he said.

Federal involvement in health has not produced solutions to the nation's health problems, he said. "We are cautious and skeptical about involving the government further. In fact, we are looking at ways to disinvolve the government."

The senator said Health Maintenance Organizations should have their "full day in the sun," but "we should not build on a system that favors one mode of competition over another."

As for medical schools, he said "we must give them protection if we step on the brakes. We can't leave the institutions high and dry."

Schweiker said the organizational structure at HHS is haphazard and suggested there would be moves to get the "health components working together."

Commenting on the National Health Service Corps., Schweiker said "federal support on the current scale will slow permanent solutions to physician maldistribution."

* * *

The nominations of Schweiker to be HHS Secretary and of former Representative Dave Stockman (R., Mich.) to be Director of the Office of Management and Budget brought to the cabinet two proponents of the so-called "pro-competition" health plan.

"Pro-competition" measures remove the current federal tax subsidy for purchase of private health insurance. People would receive tax-free rebates when they choose plans costing less than a set amount of premiums. High deductibles and co-insurance are encouraged. Most such bills before Congress include a catastrophic benefit as a requirement for private insurors. The intent is to foster competition among insurors to produce innovation and efficiency and to reduce waste. Much of the present regulatory apparatus would be stripped away, including PSROs (Professional Standards Review Organizations) and health planning.

One of the major bills before the House was sponsored by Stockman and Representative Richard Gephardt (D., Mo.). Senator David Durenberger (R., Minn.), who may be chairman of the Senate Finance Subcommittee on Health, is a pro-competition backer.

* * *

The HHS Department is anticipating changes with the new Administration. The agency foresees wide organizational shifts. The Reagan team has been considering proposals to bring education back into the agency, undoing the brand new Education Department that was created by President Carter. Significant changes appear inevitable at the HCFA (Health Care Financing Administration) which runs Medicare and Medicaid. There is sentiment for creation of a cabinet-level Health Department. A stronger policy role is in the works for the PHS (Public Health Service).

Former HHS Secretary Patricia Harris proposed a new structure consisting of two HHS Under Secretaries, one for health, the other for Social Security. This would help solve problems created by the present awkward arrangement under which HCFA, controlling the two largest federal health programs, is separate from the Public Health Service. Harris proposes that HCFA report to the Health Under Secretary.

* * *

Scores of changes were made in the Medicare and Medicaid programs as a result of the passage of the Budget "Reconciliation" bill late in the Congressional "lame duck" session.

Most of the controversial provisions affecting the medical profession were dropped from the bill as were the sweeping changes in hospital reimbursement that had been approved by the Senate.

Here are some of the major provisions that were enacted:

*Professional Standards Review Organizations—No PSRO will be required to make records available pursuant to a Freedom of Information Act request until one year after the entry of a final court order requiring such disclosure.

*Home Health—Unlimited home health care benefits would be made available under both Parts A and B; the three-day prior hospitalization requirement would be eliminated; the $60.00 deductible under Part B would be waived; occupational therapy would be added as a benefit criteria, and the state licensing requirement would be waived.

*Alcohol—Medicare will reimburse for inpatient alcohol detoxification services in freestanding facilities meeting health and safety standards.

*Tests—Diagnostic tests performed on an outpatient basis in the outpatient department of a hospital or a physician's office within seven days of a patient's admission to the hospital would be reimbursed in full.

*Rehabilitation—Permits reimbursement under Medicare for comprehensive outpatient rehabilitation facilities under Part B based on the costs incurred in furnishing covered services, including: physicians' services, nursing care, physical therapy, occupational therapy, speech pathology, respiratory therapy, social and psychological services, prosthetic devices, drugs and biologicals, supplies, appliances, equipment, and other items which are necessary for the rehabilitation of the patient.

*Outpatient Surgery—Medicare reimbursement is authorized for the facility cost of ambulatory surgical centers where the ambulatory surgical center has agreed to accept assignment. This reimbursement would be available in situations where the center performed certain procedures that are considered "safe" and "appropriate" in an outpatient setting. The physician's reasonable charge for performing the procedures would be reimbursed at 100 percent, providing the physician also agrees to accept assignment. A physician who accepts assignment will receive additional Medicare reimbursement for performing certain listed surgical procedures in his or her office.

*Optometrists—Coverage for optometrists' services to aphakic patients will be provided under Medicare. A study will be conducted to determine whether Medicare should reimburse optometrist services to cataract patients.

*Radiologists and Pathologists—The special 100 percent reimbursement with no deductible, for services to hospital inpatients by radiologists and pathologists would be limited to those who agree to accept assignment for all services furnished to hospital inpatients.

*Teaching Hospitals—Alternate forms of reimbursement for professional services rendered by physicians in teaching hospitals are provided. Hospitals having approved teaching programs may elect to be paid for the services of those programs on a reasonable cost basis providing that all physicians involved in the teaching program elect to be paid on such a basis. Alternatively, physicians could elect to receive reimbursement on the basis of reasonable charges under Part B if conditions are met.

*Rural Hospitals—The HHS Secretary would be authorized to apply Medicare standards to rural hospitals in a flexible manner to take into account the availability of qualified personnel, and so forth.

*Transfer for Skilled Nursing Facility Coverage—The 14-day period within which a Medicare beneficiary must be transferred from a hospital to a skilled nursing facility in order to qualify for post-hospital extended care benefits would be extended to 30 days.

*Clinical Labs—Payment for laboratory services will be limited to the lower of the laboratory's reasonable charge, or the actual amount billed by the physician, plus a nominal fee to cover his or her costs.

Pregnant women advised to avoid iodine disinfectants

Pregnant women are advised to avoid using douches or creams containing povidone-iodine as a disinfectant, because of possible danger to the unborn child.

In the December 12 Journal of the American Medical Association, Helmuth Vorherr, M.D., of the University of New Mexico School of Medicine, Albuquerque, reports on a research study to measure iodine uptake into the blood stream from the vaginal disinfectant.

Dr. Vorherr found that blood levels of iodine jumped from fivefold to 15-fold within a short time after the disinfectant was used.

An overload of iodine in the system can cause a suppression of the thyroid gland output, the New Mexico physician points out. Fetal thyroid glands are particularly sensitive. There is risk that the infant would be born with goiter and hypothyroidism. The risk is especially high when an iodine disinfectant is used repeatedly, he says. The newborn could have mental and physical retardation and brain disturbance.

Povidone-iodine appears under several trade names, Betadine, Isodine, Polydine, PVP-Indone, and Ultradine.

SCHEDULE OF SCIENTIFIC MEETINGS

1981 ANNUAL CME ASSEMBLY

Medical Society of the State of New York
Niagara Falls Convention Center

FRIDAY, JUNE 26

Morning:
- Cardiovascular Diseases
- Obstetrics & Gynecology
- Gastroenterology, Colon & Rectal Surgery
- Cancer Update 1981—General Session
- Chest Diseases

Afternoon:
- Occupational Medicine, and Medical Legal & Workers' Compensation matters
- Obstetrics & Gynecology
- Gastroenterology, Colon & Rectal Surgery
- Alcohol & the Unborn—General Session
- Preventive Medicine
- Otolaryngology & Maxillofacial Surgery
- Dermatology & Syphilology

SATURDAY, JUNE 27

Morning:
- Ophthalmology
- Internal Medicine
- Surgery, Urology & Anesthesiology
- Pathology, Radiology & Orthopedic Surgery
- Neurosurgery

Afternoon:
- Ophthalmology
- Internal Medicine
- Computer Application to Office & Hospital Practice General Session

SUNDAY, JUNE 28

Morning:
- Allergy & Immunology
- School Health & Pediatrics
- Psychiatry & Family and General Practice
- Plastic, Reconstructive & Maxillofacial Surgery
- Physical Medicine & Rehabilitation, and Orthopedics
- Neurology

CME CREDITS: Each program will be eligible for CME Category I Credits on an hour-for-hour basis.

SCIENTIFIC & TECHNICAL EXHIBITS

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1981 Annual CME Assembly

Friday, June 26—Sunday, June 28

All physicians are invited to attend our Annual Continuing Medical Education Program to be held in Niagara Falls, New York. You will have the opportunity to obtain Category I CME Credits during 2½ days of outstanding General Sessions, Symposia, and Panel Discussions.

As in the past, there will be Scientific and Technical Exhibits to help the physician to become acquainted with the latest research techniques, and to learn about new products and services that will help the physician provide better medical care.

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NIAGARA FALLS INTERNATIONAL CONVENTION CENTER

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The International Convention Center and the Niagara Hilton are located just 25 miles and 40 minutes from Greater Buffalo International Airport which is serviced by Allegheny, Eastern, United and American Airlines. The airport bus is $4.00. Amtrak rail service is available through Buffalo about 21 miles south; taxi about $8.00. By car, Niagara Falls is about 450 miles from New York City via the New York State Thruway.

WHAT TO SEE—HIGHLIGHTS

The Falls.

Just a short walk from the Niagara Hilton, the Falls is one of the top attractions of the world. At night the Falls are illuminated by colored lights which create a spectacular sight.

Prospect Point & Observation Tower.

At Prospect Point, an elevator in the observation tower takes visitors to the base of the Falls or high above them.

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Maid of the Mist.
Departing from the foot of the Observation Tower & Prospect Point, the boats pass directly in front of the American and Bridal Veil Falls, and enter into the Horseshoe Basin. Boats depart about every 15 minutes and the trip lasts one-half hour.

Goat Island.
Dividing the Niagara River into the Horseshoe and American Falls, the island provides dramatic views of the Falls.

Cave of the Winds.
Guided tour to the base of the Bridal Veil Falls.

Niagara Viewmobile.
A guided mini-train excursion of Prospect Park and Goat Island.

Winter Garden.
A tropical park in a greenhouse-like structure on Rainbow Mall near the Niagara Hilton. On display are plants of 225 different varieties including 40 ft. high palms.

Geological Museum.
Contains the geological history of the Falls covering 500 million years.

Niagara Power Project.
Located 4½ miles north of the Falls, it has displays, exhibits, motion pictures, plus an observation deck overlooking the Niagara Gorge and River.

Artpark.
A 200 acre park located 12 miles from Niagara Falls at Lewiston. It includes a theatre, and artists and craftsmen working daily from 11 a.m. to 5 p.m.

Lewiston, N.Y.
A historic village noted for its portage.

Lower Niagara Cruises.
Two hour cruises on the Niagara River from Fort Niagara.

Old Fort Niagara.
Relive nearly 300 years of history under three flags in this well-preserved Fort.

BUFFALO. Albright-Knox Art Gallery.
Housed in a beautiful neoclassical, ionic columned building, the gallery is among the top ten museums of modern art in America. On view are major paintings by deKoonig, Rothko, Pollock, Kline, Motherwell, Frankenthaler, Stella, Jasper Johns, Rauschenberg & Still. And sculptures by David Smith and David Hare.

HOTEL RESERVATIONS

Physicians must make their own hotel reservations no later than June 4, 1981 in order to take advantage of the special rates. If making hotel reservations by telephone, please mention that you are attending the Medical Society CME Assembly.

SPECIAL EVENTS

MSSNY RECEPTION & DINNER.
All physicians and their guests are welcome to attend a reception and dinner to be held at the Niagara Hilton on Saturday, June 27th. An outstanding guest speaker is scheduled to appear. The reception will start at 7:00 p.m. and dinner at 8:00 p.m. Cost: $30.00. A preregistration form will appear in the March issue of the Journal.

GOLF TOURNAMENT.
Details will appear in the March issue of the Journal.

SPECIAL COURSES

BASIC CARDIAC LIFE SUPPORT course.
Details will appear in the March issue of the Journal.

SPECIAL SESSION

1980 ALBION O. BERNSTEIN, M.D. AWARD.
On Saturday, June 27th, the award will be presented by Ralph M. Schwartz, M.D., President, Medical Society of the State of New York, to Georges Kohler, Ph.D. of the Basel Institute for Immunology in Switzerland for his outstanding achievement in immunology. Dr. Kohler will address the special session.

INTERMISSIONS

There will be morning and afternoon intermissions for coffee, and to allow time to visit the exhibits.

MEETING HOURS

Friday, June 26:
8:00 a.m.–12 Noon
2:00 p.m.–5:00 p.m.

Saturday, June 27:
8:00 a.m.–12 Noon
1:00 p.m.–4:00 p.m.
4:30 p.m.–5:30 p.m.

Sunday, June 28:
8:30 a.m.–12:30 p.m.

•

All meetings & exhibits will close at 1:00 p.m on Sunday.

Abstracts

Newman, H. N., Northup, J. D., and Oscharoff, A.: Cancer detection in industrial clinic, **New York State J. Med. 81:** 177 (Feb.) 1981.

A retrospective study of 720 patients with serious malignant conditions and 35 with clinically significant benign disorders was made in an industrial outpatient clinic. The value of routine examinations was confirmed for a medically unsophisticated population despite virtually cost-free medical service. The importance of contact with the physician was stressed, and measures to improve early diagnosis were outlined.

Rosenthal, L. J., Greenfield, D. S., and Lesnick, G. J.: Breast abscess; management of subareolar and peripheral disease, **New York State J. Med. 81:** 182 (Feb.) 1981.

An alternative to conventional treatment of breast abscess by incision and drainage was formulated to avoid the frequent recurrence and fistulization. Forty-one nonpuerperal breast abscesses (30 subareolar and 11 peripheral) were treated with repeated aspiration and antibiotics. Diagnosis was verified by aspiration of pus. The regimen was effective in curing all peripheral and 28 out of 30 subareolar abscesses. No nipple fistula developed. Treatment by repeated aspiration and antibiotics controls breast abscess and avoids recurrence and nipple fistulization.

Whitehead, E. D., and Leiter, E.: Prostatic carcinoma; clinical and surgical staging, **New York State J. Med. 81:** 184 (Feb.) 1981.

The rational choice of alternative treatment plans for carcinoma of the prostate depends on accurate determination or clinical staging of the extent of disease. Until recently, such staging was accomplished primarily with serum acid phosphatase and x-ray bone survey, and resulted in significant understaging. Newer diagnostic modalities, including immunoassay of prostatic acid phosphatase, radioisotope bone scans, lymphangiography, CAT scanning, and lymphadenectomy have revolutionized the investigation of patients with carcinoma of the prostate. It is, therefore, essential that physicians be completely familiar with the advantages, disadvantages, reliability, and morbidity of these new methods of evaluation.

Yoonessi, M., Mariniello, D. A., Wieckowska, W. S., Angtuaco, M. G., and Diesfeld, P.: DES story; review and report, **New York State J. Med. 81:** 195 (Feb.) 1981.

This report summarizes the results of a retrospective analysis of the clinicopathologic findings in 217 patients believed to have been exposed in utero to DES (diethylstilbestrol). Mean and median age of patients was 21.4 to 21 years respectively. The oldest patient was 32 years old. Histologically proved vaginal adenosis was observed in 14 percent of the cases. Even though 62 patients were originally diagnosed as having intraepithelial neoplasia, in a careful review only 25 cases were acceptable as genuine dysplasia, and the rest were considered to represent squamous metaplasia. Seven patients had hysterosalpingograms and three had hypoplastic uteri. Pathogenesis and pathology of DES-related changes as well as management of DES-exposed offspring is discussed.

Cervical collar recommended as cure for snoring

Have a snoring problem? Already tried everything and still can't stop? And the rest of the family is threatening to move out?

Try sleeping in a cervical collar.

In the October 17 Journal of the American Medical Association, E. L. C. Broomes, M.D., of East Chicago, Indiana, recommends using the collar, the same kind that is used for treating a sprained neck.

It works, says Dr. Broomes.

The discordant notes of snoring are usually at the maximum when the sleeping perpetrator is lying on his back with head sagging on the chest, the physician explains. This causes bending of the trachea and compression of the respiratory tube, obstructing in and out flow of air. This obstruction causes the harsh sounds we call snoring, says Dr. Broomes.

The cervical collar will keep the chin elevated and so prevent flexing of the trachea that causes compression and results in snoring, the Indiana physician declares.

continued from page 171

In another chapter, the book points out that the practicing physician must guard against false-positive as well as false-negative tests. This often means ordering another test to confirm the findings of the first. Rarely will the physician institute therapy or make a specific diagnosis such as gout or hyperthyroidism without confirming the test, the book says.

In the summary chapter, Dr. Jones and William D. Dolan, M.D., Council member from Arlington, Va., point out the role of laboratory tests in the practice of medicine, and conclude:

"There has always been agreement that the best medicine by the most seasoned clinicians is parsimonious in its reliance on the laboratory. The physician who takes time to obtain an adequate history and perform a thorough physical examination will usually need a minimum of laboratory tests to confirm his clinical diagnosis.

"It is when he is faced with unusual symptoms or an obscure diagnosis that he may rely upon sometimes extensive laboratory testing in an effort to better define the disease state."

The book may be obtained from Order Department, OP-065, American Medical Association, Monroe, Wis. 53566.

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●

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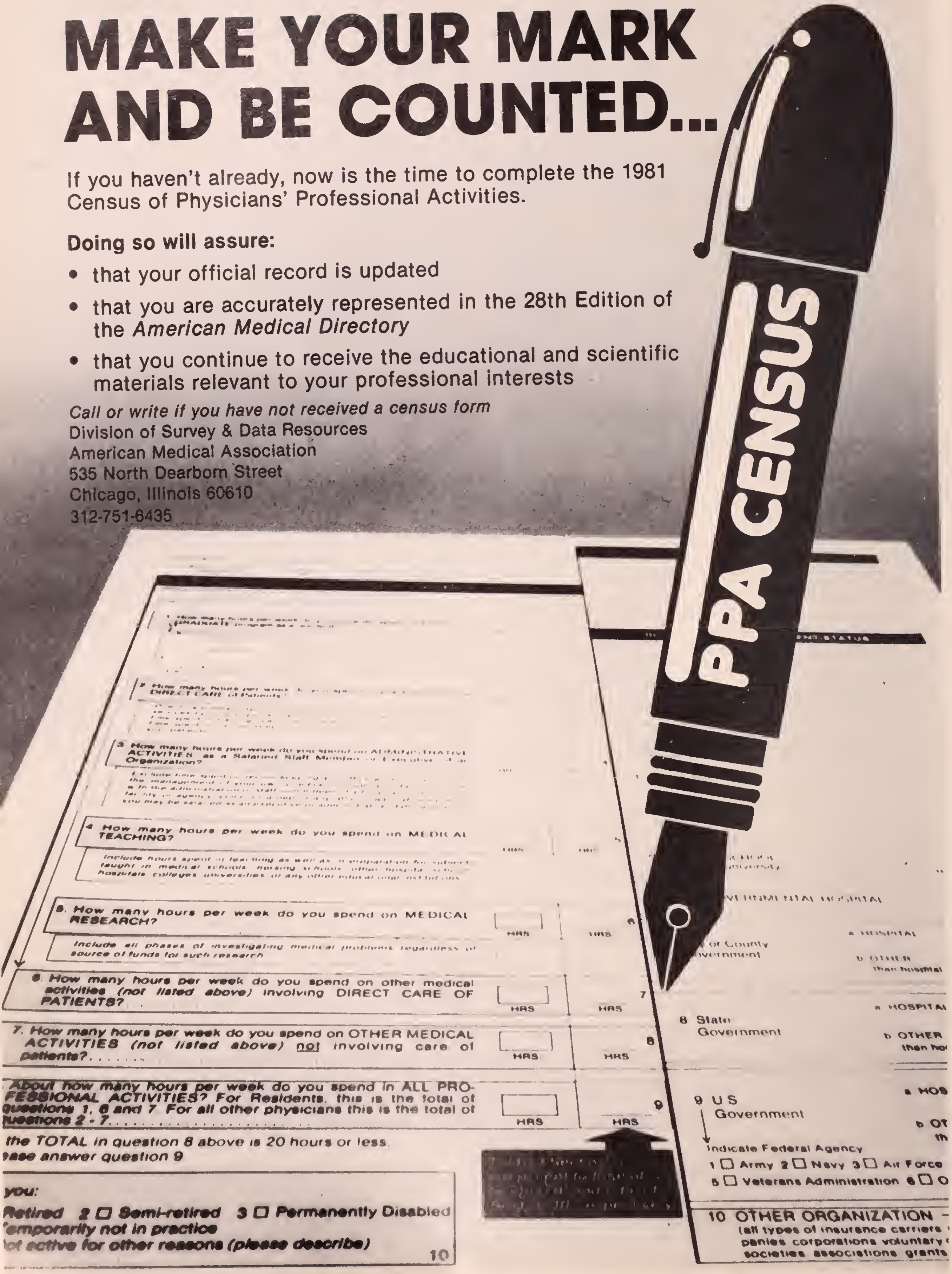

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Include all phases of investigating medical problems regardless of source of funds for such research

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5 ☐ Veterans Administration 6 ☐ O

10 OTHER ORGANIZATION
(all types of insurance carriers panies corporations voluntary societies associations grants

Abstracts in Interlingua

Newman, H. N., Northup, J. D., e Oscharoff, A.: Detection del cancer in un clinica industrial, **New York State J. Med.** 81: 177 (Februario) 1981.

Un studio retrospective de 720 patientes con morbos maligne seriose, e de 35 con morbos benigne de signification clinic esseva facite in un clinic industrial ambulatori. Le valor del examination rutinari esseva confirmate in un population medicmente regulari ben que le servicio medic esseva virtualmente gratis. Es emphatisate le importantia del contacto con le medico e etiam esseva delineate mensuras pro un diagnose temprane.

Rosenthal, L. J., Greenfield, D. S., e Lesnick, G. J.: Abscessos del glandula mammari (sino); tractamento subareolari e peripheric, **New York State J. Med.** 81: 182 (Februario) 1981.

Un tractamento alternative del therapia conventional del abscessos del sino consistente in incision e drenage esseva formulate pro evitar le frequente recurrentia e fistulisation del morbo. Quaranta-un (41) abscessos del sino in patientes non puerperal (30 subareolari e 11 peripheric) esseva tractate con aspirationes repetite e antibioticos. Le diagnose esseva verificate mediante le aspiration de pus. Le tractamento esseva effective pro curar omne peripheral abscessos e 28 del 30 abscessos subareolari. No fistulisation del papilla esseva disveloppate. Le tractamento mediante aspiration repetite e antibioticos pote controlar le abscessos del sino e evitar le recurrentia e le fistulisation del papilla.

Whitehead, E. D., e Leiter, E.: Carcinoma prostatic; stadios clinic e chirurgic, **New York State J. Med.** 81: 184 (Februario) 1981.

Le rational pro le tractamento de election e alternative pro le carcinoma del prostata depende del determination clinic accurate del stadio de extension del morbo. Hasta recentemente, le determination del stadio del morbo esseva facite primarimente mediante le phosphatasa acid del sero e le examination radiologic del ossos ("bone scan"). Isto donate un intrastadio de signification clinic. Le modalitate diagnostic plus nove, includente le immunoessaios del phosphatasa acid del prostata, le "scans"ossee con radioisotopos, le lymphoangiographia, le "CAT scanning" e le lymphadenectomia ha revolutionate le studio del patientes con cancer del prostata. Consequentemente, es essential que le medico sia completemente familiarisate con le advantages, le disadvantages, le factores de confiabilitate e le morbiditate de iste nove metodos de evalutation.

Yoonessi, M., Mariniello, D. A., Wieckowska, W. S., Angtuaco, M. G., e Diesfeld, P.: Le historia de "DES"; revision e reporto, **New York State J. Med.** 81: 195 (Februario) 1981.

In iste reporto es summarisate le resultatos de un analyse retrospective del trovatos clinic-pathologic in 217 patientes possibilimente exposite, in utero, al diethylstilbestrol ("DES"). Le promedie e medie del etate del patientes esseva 21.4 e 21 annos respectivemente. Le patiente major esseva 32. Adenosis vaginal histologicmente demonstrate esseva observate in 14 pro cento del casos. Ben que 62 patientes esseva originalmente diagnosticate como neoplasia intraepithelial, in un revision attentive solmente 25 casos esseva acceptabile de haber un dysplasia genuine; le resto esseva considerate de haber un metaplasia squamose. Septe patientes habeva hysterosalpigogrammas, e 3 habeva hyploplasia uterine. Le pathogenese e le pathologia del cambios relationate con le DES, e etiam le tractamento del descendentia exposite al DES es discutite.

Translated by Eduardo I. Juliet, M.D.

Leukemia increase noted in military men

An almost three-fold increase in leukemia cases among military men participating in maneuvers in Nevada during the 1957 nuclear test explosion "Smoky" is noted in a report in the October 3 Journal of the American Medical Association.

Nine cases of leukemia have occurred among 3,224 men who participated in the maneuvers, says Glyn G. Caldwell, M.D., of the Center for Disease Control, Atlanta. This represents a "significant increase" over the expected incidence of 3.5 cases, he declares.

Many details are not yet clear.

"If not a chance occurrence, the apparent excess of leukemia among Smoky participants suggests that such persons may have received more radiation than previously supposed or that low doses of radiation may be more carcinogenic than past estimates predicted," Dr. Caldwell points out.

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The U.S. Army Reserve has a critical shortage of physicians which could have serious consequences in the event of a mobilization for war or for national or local emergencies. As a physician, you are eligible to join up to the age of 58 if you have had no prior military service. If you're interested in learning more about the Reserve Medical Corps Program, write to: AMEDD Procurement Office, Ainsworth Health Clinic, Room 254, Fort Hamilton, Brooklyn, N.Y. 11252, or call (212) 836-4100, ext. 4060/4780.

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The N.Y.S. Office of Health Systems Management is seeking candidates for the position of Public Health Physician II (Local Medical Assistance Program) located in the Rochester Area Office.

Functioning in the Medicaid Fraud & Abuse Program, the position involves pre-payment review; identification of problem practice patterns and abuse; direction of patient complaint investigations; provision of testimony at hearings; and liaison with professional medical groups.

PART-TIME POSITIONS also available in the New York City area office. Board certification or eligibility in Internal Medicine is required for these positions.

Minimum qualifications: license to practice medicine in the U.S. or Canada and certification or eligibility in a medical specialty. Recent clinical experience and one year of supervisory experience are preferred. Master's in public health is desirable.

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Specify position location of interest.
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YSJM.

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c/o NYSJM.

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NYSJM, or you may call at (305) 932-1183.

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ARD CERTIFIED INTERNIST, 30 y/o, university trained, seeks opportunity join solo practitioner or small group practice in metropolitan New York or assau. Please reply Dept. 163 c/o NYSJM.

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c/o Administrator
Edwin Shaw Hospital
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(212) 472-3000

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MISCELLANEOUS—CONT'D

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affiliated with (DLC) Dealers Leasing Corporation, has special car lease packa
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offices, successful established practitioners will introduce (212) 448-4488.

what goes on IN CONTINUING MEDICAL EDUCATION

NEW YORK STATE **MARCH 1981**

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420 Lakeville Road, Lake Success, New York 11042
Telephone 516-488-6100.

Compiled by the Division of Scientific Activities
George J. Lawrence, Jr., M.D., Director
Mrs. Elizabeth H. Daepp, Editor
Philip Keating, Business Manager

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NEW YORK CITY

New York University Post-Graduate Medical School

550 First Avenue
*Classroom B—Alumni Hall
February 13–June 26, 9:00 a.m.–Noon, Fridays
TRAINING PROGRAM IN GROUP PSYCHOTHERAPY
Samuel Slipp, M.D., Edward Pinney, M.D.
FEE: $650. CREDIT: AMA Cat. 1 (57 hrs.)
For further information contact Registration Office, NYU Post-Graduate Medical School, 550 First Avenue, New York 10016. Tel: 212/340/5295.

The New York State Society of Anesthesiologists, Inc.

30 East 42nd Street
*Buffalo General Hospital
Buffalo
March 1981
UPDATE REGIONAL ANESTHESIA TECHNIQUES & AGENTS
CREDIT: AMA Cat. 1 (4 hrs.)
For further information contact The New York State Society of Anesthesiologists, Inc., 30 East 42nd Street, Suite 1501, New York 10017. Tel: 212/867-7140.

The Page and William Black Post-Graduate School of Medicine of the Mount Sinai School of Medicine (CUNY)

*The Orthopedic Institute
301 E. 17 Street
March 1981, 8:30 a.m.–1:00 p.m.
COMPREHENSIVE PAIN MANAGEMENT
Sheldon Zimberg, M.D., Ralph L. Bernstein, M.D., Martin Sheehy, M.D.
FEE: $25. CREDIT: AMA Cat. 1
For further information contact Beth Israel Medical Center, 10 Nathan D. Perlman Place, New York 10003. Tel: 212/420-2849/2851.

The Page and William Black Post-Graduate School of Medicine of the Mount Sinai School of Medicine (CUNY)

*The Mount Sinai Medical Center
One Gustave L. Levy Place
March 2–6, 9:00 a.m.–Noon, Friday
TEMPORAL BONE SURGERY
Simon C. Parisier, M.D.
FEE: $800. CREDIT: AMA Cat. 1 (33 hrs.)
March 3, 10, Tuesdays
CARDIOPULMONARY RESUSCITATION FOR HEALTH PROFESSIONALS
Douglas DiStefano, M.D., Nicholas Galli, Ph.D.
FEE: TO BE ANNOUNCED CREDIT: AMA Cat. 1
March 7, 9:00 a.m.–5:00 p.m., Saturday
SEXUAL DISORDERS IN MEDICAL PRACTICE
Raul C. Schiavi, M.D.
FEE: $75 CREDIT: AMA Cat. 1 (6½ hrs.)
March 28–29, 9:00 a.m.–6:00 p.m., Saturday and Sunday
SOFT TISSUE SURGERY
William Lawson, M.D., D.D.S.
FEE: $250. CREDIT: AMA Cat. 1 (15 hrs.)
$150. House Staff
March 17, 24, Tuesdays
CARDIOPULMONARY RESUSCITATION REFRESHER
Douglas DiStefano, M.D., Nicholas Galli, Ph.D.
FEE: $30. CREDIT: AMA Cat. 1
March 19, 20, 9:00 a.m.–5:00 p.m., Thursday and Friday
SYMPOSIUM ON THYROID AND PARATHYROID DISEASE
Eugene W. Friedman, M.D., Dorothy Krieger, M.D.
FEE: $200. including lunch CREDIT: AMA Cat. 1 (13 hrs.)
March 21, 9:00 a.m.–5:00 p.m., Saturday
JOEL HARTLEY MEMORIAL SYMPOSIUM FIRST AID FOR EMERGENCIES IN CHANGING TIMES
Michael A. Bleicher, M.D.
FEE: $65. including lunch CREDIT: AMA Cat. 1 (6½ hrs.)
March 27–28, 9:00 a.m.–5:00 p.m., Friday and Saturday
AN UPDATE IN INTERNAL MEDICINE FOR PRACTICING PSYCHIATRISTS AND NEUROLOGISTS
Gerald Friedman, M.D., Ph.D., Jesse Rosenthal, M.D.
FEE: $150. CREDIT: AMA Cat. 1 (13 hrs.)

The New York Academy of Medicine

2 East 103 Street
March 2, 6:30 p.m., Tuesday

Section on Plastic and Reconstructive Surgery

RESIDENTS' NIGHT
Reception 6:30 p.m.—Subscription Dinner 7:15 p.m.
March 3, 7:00 p.m., Tuesday

Section on Dermatology and Syphilology

CLINICAL CASE PRESENTATIONS
DEPARTMENTS OF DERMATOLOGY
CREDIT: AMA Cat. 1 (2 hrs.)
March 4, 7:30 p.m., Wednesday

Section on Anesthesiology and Resuscitation

BARABRA LIPTON MEMORIAL LECTURE
CLINICAL MANAGEMENT OF PATIENTS WITH CORONARY ARTERY DISEASE IN THE 1980's
CARDIOLOGIST'S VIEW
Richard Gorlin, M.D.
CARDIAC SURGEON'S VIEW
Robert W. M. Frater, M.B., Ch.B.
ANESTHESIOLOGIST'S VIEW
Fawzy G. Estafanous, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)
Reception 6:00 p.m.—Subscription Dinner 6:30 p.m.
March 4, 8:00 p.m., Wednesday

Section on Physical Medicine and Rehabilitation with the New York Society of Physical Medicine and Rehabilitation

GRADUATE AND POST GRADUATE MEDICAL EDUCATION AND ITS IMPACT ON PATIENT CARE
Glen Gullickson, M.D.
CREDIT: AMA Cat. 1 (1 hr.)
Reception 6:00 p.m.—Subscription Dinner 7:00 p.m.
March 16, 8:00 p.m., Monday

Section on Ophthalmology

THE LACRIMAL EXCRETORY SYSTEM: CURRENT CONCEPTS
John T. Simonton, M.D.
DIAGNOSIS OF DISORDERS OF THE LACRIMA EXCRETORY SYSTEM
Albert Hornblass, M.D.
LACRIMAL BYPASS PROCEDURES
William C. Cooper, M.D.
CONGENITAL ANOMALIES OF THE LACRIMAL EXCRETORY SYSTEM
Byron C. Smith, M.D.
NEW CONCEPTS IN MANAGEMENT OF DACRYOSTENOSIS IN INFANCY
John S. Crawford, M.D.
CREDIT: AMA Cat. 1 (1 hr.)
Reception 6:00 p.m.—Subscription Dinner 6:45 p.m.
March 16, 4:30 p.m., Monday

Section on Radiology with the New York Roentgen Society

*Hosack Hall
CYANOTIC CONGENITAL HEART DISEASE

Hugo Spindola-Franco, M.D.
NON-CYANOTIC CONGENITAL HEART DISEASE
Eric Martin, M.D.
HEMATOLOGIC RESPONSE TO CONTRAST MEDIA
Rogelio Moncada, M.D.

5:00–6:00 p.m.

Section on Radiotherapy

•Room 441
INOPERABLE BREAST CANCER
Eleanor Montague, M.D.
6:00–7:00 p.m., Cocktails and Dinner (Presidents' Gallery)

March 16, 4:30 p.m., Monday

Section on Radiology with the New York Roentgen Society

8:00 p.m., Evening Diagnostic Session
•Hosack Hall
POTENTIAL OF C.T. IN THE DIAGNOSIS OF PERICARDIAL, ON CARDIAC AND CORONARY ARTERY DISEASE
Rogelio Moncada

8:00–9:00 p.m.

Section on Radiotherapy

•Room 441
PRIMARY OPERABLE BREAST CANCER
Eleanor Montague
CREDIT: AMA Cat. 1 (1 hr)
AMA Cat. 1 (1½ hrs.) afternoon teaching Session

March 18, 8:00 p.m.

Section on Otolaryngology with the College of Physicians of Philadelphia

CLASSICAL (RIGID) BRONCHOSCOPY
Stanley M. Blaugrund, M.D.
FLEXIBLE (FIBEROPTIC) BRONCHOSCOPY
John J. Welsch, M.D.
Reception 6:00 p.m.—Subscription Dinner 7:00 p.m.

March 18, 8:00 p.m., Wednesday

Section on Urology

THE TWENTIETH FERDINAND C. VALENTINE MEMORIAL LECTURE
Norbert J. Roberts
PRESENTATION OF MEDAL AND AWARD
Robert S. Waldbaum, M.D.
WILLIAM P. DIDUSCH, THE MAN AND THE MUSEUM (Movie)
William P. Didusch, M.D.
Reception 6:00 p.m.—Subscription Dinner 7:00 p.m.

March 25, 8:00 p.m., Wednesday

Section on Historical Medicine

OLIVER WENDELL HOLMES: POET AND PHYSICIAN
Louis F. Bishop, M.D.
Reception 6:15 p.m.—Subscription Dinner 7:00 p.m.

March 30, 8:00 p.m., Monday

Section on Geriatric Medicine and the Section on Plastic and Reconstructive Surgery and the Section on Psychiatry

AESTHETIC PLASTIC SURGERY OF THE FIFTIES, SIXTIES AND SEVENTIES IN THE 80's
PSYCHIATRIC ASPECTS OF AESTHETIC SURGERY IN THE OLDER AND AGED PATIENT
Alfred Weiner, M.D.
AESTHETIC PLASTIC SURGERY OF THE FACE
Bruce F. Connell, M.D.
AESTHETIC RECONSTRUCTION OF THE FEMALE BREASTS
Paul McKissock
CREDIT: AMA Cat. 1 (2 hrs.)
Reception 6:00 p.m.—Subscription Dinner 7:00 p.m.

Beth Israel Medical Center and the American Cancer Society, New York City Division Cosponsored by The Page and William Black Post-Graduate School of the Mount Sinai School of Medicine, (CUNY)

•Hospital for Joint Diseases/Orthopaedic Institute
301 East 17th Street
March 25, 8:30 a.m.–4:00 p.m., Wednesday
RECENT ADVANCES IN DIAGNOSTIC MODALITIES AND THERAPY FOR BREAST CANCER
Louis Venet, M.D.
NO FEE CREDIT: AMA Cat. 1 (6 hrs.)
For further information contact Post-Graduate Medical Education Office, Beth Israel Medical Center, 10 Nathan D. Perlman Place, New York 10003. Tel: 212/420-2851.

State University of New York Downstate Medical Center

450 Clarkson Avenue
Brooklyn
March 2, 4:00–5:00 p.m.
VISITING PROFESSOR PROGRAM
THEORIES OF NARCOSIS
Edward A. Brunner, M.D.
March 3, 5:00–6:00 p.m.
EFFECTS OF ANESTHESIA ON BRAIN METABOLISM
Edward A Brunner, M.D.
•Alumni Memorial Hall, 2nd Floor
Tuesday, 5:00–6:00 p.m., (when Visiting Professor is not scheduled)
ANESTHESIA GRAND ROUNDS
For further information contact Abraham I. Raskob, M.D., Clinical Associate Professor, Program Coordinator, Department of Anesthesiology, State University of New York Downstate Medical Center, 450 Clarkson Avenue, Brooklyn 11203. Tel: 212/735-3344.

Westchester Square Hospital in Collaboration with Albert Einstein College of Medicine

1625 St. Peters Avenue
Bronx
•Conference Room
March 4, 4:00–5:30 p.m., Wednesday
RENAL HYPERTENSION
Chaim Charytan, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)
March 18, 4:00–5:30 p.m., Wednesday
THE ROLE OF REHABILITATION IN MEDICAL PRACTICE
Susan Gordon, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)

Jewish Hospital and Medical Center of Brooklyn in Association with the American Cancer Society, New York Division, Brooklyn Unit, Office of CME, (SUNY) Downstate Medical Center

555 Prospect Place
Brooklyn
•B-51 Conference Room, Basement, Leviton Bldg.
3:30–4:30 p.m.
March 4
FOLATE METABOLISM AND THE PHARMACOLOGIC BASIS OF ANTI-FOLATE THERAPY
Sheldon Rothenberg, M.D.
March 11
ADVANCES IN THE MANAGEMENT OF TESTICULAR CARCINOMA
George J. Bosl, M.D.

March 18
CRYOGLOBULINEMIA
Parviz Lalezari, M.D.
March 25
ECTOPIC TUMOR HORMONES
Sheldon C. Sommers, M.D.
NO FEE CREDIT: AMA Cat. 1
For further information contact Jewish Hospital & Medical Center of Brooklyn, 555 Prospect Place, Brooklyn 11238. Tel: 212/240-1211/1212, Div. of Hematology.

Saint Mary's Hospital of Brooklyn

170 Buffalo Avenue
March 11, 8:00–9:00 a.m.
HOST DEFENSE MECHANISMS
Stephen J. Seligman, M.D.
NO FEE CREDIT: AMA Cat. 1
March 26, 12 noon–1:00 p.m., Thursday
IMMUNOPROLIFERATIVE DISEASES
Ronald Rieder, M.D.
NO FEE CREDIT: AMA Cat. 1
For further information, contact St. Mary's Hospital Division of the Catholic Medical Center, Department of Medicine, 170 Buffalo Avenue, Brooklyn 11213. Tel: 212/774-3600, ext. 2044

Doctors Hospital

170 East End Avenue at 87th Street
March 5, 4:15 p.m., Thursday
FEMALE INFERTILITY
Raymond L. Vande Wiele, M.D.
NO FEE CREDIT: AMA Cat. 1 (1½ hrs.)
For further information contact Clifford L. Spingarn, M.D., Chairman, Committee on Continuing Medical Education, Doctors Hospital, 170 East End Avenue, New York 10028. Tel: 212/535/3000, ext. 118.

Albert Einstein College of Medicine of Yeshiva University Cosponsored by the National Cancer Institute (NSABP Cancer Control Network) and The American Cancer Society

1300 Morris Park Avenue
Bronx
*Van Etten Hospital, Room 523
4:00–5:30 p.m.
March 6
ONCOLOGY FOR THE FAMILY PRACTITIONER SOLID SARCOMAS
G. C. Escher, M.D.
March 20
TREATMENT OF RECURRENT BREAST CANCER
H. Volk, M.D.
For further information contact Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx 10461. Tel: 212/430-2000.

New York Hospital-Cornell Medical Center

525 East 68th Street
*Payne Whitney Clinic
March 28, 9:30 a.m.–4:00 p.m., Saturday
ADOLESCENT TURMOIL REVISITED: CURRENT ISSUES IN ADOLESCENT MENTAL HEALTH
Aaron H. Esman, M.D., Ralph Lopez, M.D., Robert Millman, M.D., Erika Loutsch, M.D.
FEE: $75. CREDIT: AMA Cat. 1 (5 hrs.)
For further information contact Ruth Pollack, PWC 111, The New York Hospital, Cornell Medical Center, 525 East 68th Street, New York 10021. Tel: 212/472-4344

Manhattan Eye, Ear & Throat Hospital

210 East 64th Street
March 13–14, Friday and Saturday
RETINA DETACHMENT SURGERY—STRATEGY AND TACTICS
For further information contact James S. Schutz, M.D., Manhattan Eye, Ear and Throat Hospital, 210 E. 64th Street, New York 10021. Tel: 212/753-6464.

New York University Post-Graduate Medical School

550 First Avenue
*Schwartz Lecture Hall, Classroom F
401 East 30th Street
March 14, 9:00 a.m.–1:15 p.m., Saturday
FRESH INSIGHTS INTO COMMON SKIN PROBLEMS
David L. Ramsay, M.D.
FEE: $35. CREDIT: AMA Cat. 1 (4 hrs.)
For further information contact Registration Office, NYU Post-Graduate Medical School, 550 First Avenue, New York 10016. Tel: 212/679-8745.

Intensive Clinical Neurology Course

1033 Hamilton Street
Allentown, Pennsylvania
*Sheraton Centre Hotel
Seventh Avenue at 52nd Street
New York
March 20–22
ICNC LECTURES PRESENTS ITS FOURTH ANNUAL INTENSIVE CLINICAL NEUROLOGY COURSE
Lawrence P. Levitt, M.D., Howard L. Weiner, M.D.
FEE: $230. CREDIT: AMA Cat. 1 (18 hrs.)
$130. Residents
For further information contact L. P. Levitt, M.D., Director, 1033 Hamilton Street, Allentown, Pa. 18101. Tel: 215/433-6474.

Albert Einstein College of Medicine of Yeshiva University

1300 Morris Park Avenue
Bronx
*Grand Hyatt
New York
March 20–21
GYNECOLOGIC UROLOGY SYMPOSIUM
CREDIT: AMA Cat. 1 (16 hrs.)
*Robbins Auditorium—Albert Einstein College of Medicine
March 27
TWENTY FIRST ANNUAL SYMPOSIUM OF THE CENTER FOR CRANIOFACIAL DISORDERS AND CLEFT PALATE CENTER
CREDIT: AMA Cat. 1 (8 hrs.)
*Montefiore Hospital and Medical Center
March 28
TWENTY FIRST ANNUAL SYMPOSIUM OF THE CENTER FOR CRANIOFACIAL DISORDERS AND CLEFT PALATE CENTER
CREDIT: AMA Cat. 1 (8 hrs.)
For further information contact Office of Continuing Medical Education, Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx 10461. Tel: 212/430/2822.

Albert Einstein College of Medicine of Yeshiva University

1300 Morris Park Avenue
Bronx
*New York Academy of Medicine
2 East 103 Street
March 21
SEMINAR ON FEMALE URINARY INCONTINENCE
FEE: To be announced CREDIT: AMA Cat. 1 (8 hrs.)
For further information contact Department of Urology, Bronx

Municipal Hospital Center, Pelham Parkway South & Eastchester Road, Bronx 10461. Tel: 212/430-2822.

Orton Society, Inc.

80 Fifth Avenue
*New Grand Hyatt Hotel
New York City
March 26–28

THE NEW YORK BRANCH OF THE ORTON SOCIETY, INC. 8th ANNUAL CONFERENCE
THE CHALLENGE OF THE 80's: EFFECTIVE EDUCATION FOR THE LANGUAGE AND LEARNING DISABLED
For further information contact New York Branch of The Orton Society, Inc., 80 Fifth Avenue, New York 10011. Tel: 212/691-1930.

New York University Post-Graduate Medical School Sponsored by National Institute of Allergy and Infectious Diseases, National Heart, Lung and Blood Institute, Center for Disease Control, Bureau of Biologics, FDA, The New York Blood Center

550 First Avenue
*Grand Hyatt Hotel
New York City
March 30–April 2, Monday thru Thursday

THE 1981 INTERNATIONAL SYMPOSIUM ON VIRAL HEPATITIS
FEE: $150. CREDIT: AMA Cat. 1 (24½ hrs.)
For further information contact Registration Office, NYU Post-Graduate Medical School, 550 First Avenue, New York 10016. Tel: 212/679-8745.

QUEENS

Long Island Jewish-Hillside Medical Center, Queens Hospital Center Affiliation & Health Sciences Center, SUNY (Stony Brook)

*Nurses Auditorium
Queens Hospital Center
82–68 164th Street
Jamaica
March through June 17, 7:00–9:30 p.m., Wednesdays

THE 2ND ANNUAL INTERNAL MEDICINE BOARD REVIEW COURSE
Lawrence Sherman, M.D., Catherine Marino, M.D.
CREDIT: AMA Cat. 1
For further information contact Continuing Education Coordinator, Long Island Jewish-Hillside Medical Center/Queens Hospital Center Affiliation, New Hyde Park 11042. Tel: 212/470-2114.

Peninsula Hospital Center under the Auspices of Downstate Medical Center Cosponsored by the Academy of Medicine County of Queens

51-15 Beach Channel Drive
Far Rockaway
*Perlberg Auditorium
9:00 a.m.–12:00 Noon
March 1
INFECTIOUS DISEASE
March 8
DIABETES REVIEW AND UPDATE
March 15
DERMATOLOGY
CREDIT: AMA Cat. 1 & AAFP
For further information contact Peninsula Hospital Center, 51-15 Beach Channel Drive, Far Rockaway 11691. Tel: 212/945-7100, ext. 275.

Flushing Hospital and Medical Center

Parsons Boulevard and 45th Avenue
Flushing
March 1, 9:00 a.m.–12 Noon, Sunday
DISTURBANCES IN ACID BASE BALANCE (PART II)
CREDIT: AMA Cat. 1 & AAFP
*2 East Conference Room
8:15 a.m.–9:45 a.m.
March 6
DYSFUNCTIONAL UTERINE BLEEDING
CREDIT: AMA Cat. 1 & AAFP
**4-C Conference Room*
March 3
PEPTIC ULCER DISEASE UPDATE
Howard Spiro, M.D.
March 10
RHEUMATOLOGY UPDATE: NEW CONCEPTS IN DIAGNOSIS & TREATMENT
Thomas Kantor, M.D.
March 17
BASIC PULMONARY PATHOPHYSIOLOGY
Albert Miller M.D.
March 24
THE FLOPPY MITRAL VALVE: MODERN EPIDEMIC OR MODERN ENIGMA
Joel Stromm, M.D.
March 31
ADVANCES IN RESPIRATORY PHARMACOLOGY & THERAPEUTICS
M. Henry Williams, M.D.
CREDIT: AMA Cat. 1 & AAFP
For further information contact Flushing Hospital and Medical Center, Parsons Boulevard and 45th Avenue, Flushing 11355. Tel: 212/670-5741.

Flushing Hospital and Medical Center Cosponsored with Memorial Sloan Kettering Center

Parsons Boulevard and 45th Avenue
Flushing
March 5
TRANSPLANTATION IN THE TREATMENT OF HEMATOLOGIC MALIGNANCIES
Richard O'Reilly, M.D.
For further information contact Flushing Hospital and Medical Center, Parsons Boulevard and 45th Avenue, Flushing 11355. Tel: 212/670-5000.

Booth Memorial Medical Center Sponsored by New York University Medical Center

Main Street at Booth Memorial Avenue
Flushing
*North Conference Room
9:15 a.m.–11:15 a.m., Thursdays
March 5
THE UNUSUAL LOOKING CHILD
Marsha Wishnick, M.D., Ph.D.
March 12
POISONINGS
Alan Kulberg, M.D.
March 19
RECOGNITION, EVALUATION AND TREATMENT OF THE CHILD WITH RESPIRATORY DISTRESS
Hedi Leistner, M.D.
March 26
HOSPITAL FEVERS
Alfred L. Florman, M.D.
FEE: $35. Staff CREDIT: AMA Cat. 1
$60. Others

For further information contact Ms. Clo Vezza, CME Committee, Booth Memorial Medical Center, 56-45 Main St., Flushing 11355. Tel: 212/886-1631.

The Jamaica Hospital Medical Center

89th Avenue & Van Wyck Expressway
Jamaica
*Community Room
8:30 a.m.–9:30 a.m., Mondays

CARDIOLOGY
March 9
DIET & HEART DISEASE
Richard Rivlin, M.D.
March 23
HYPERLIPIDEMIAS, DIAGNOSIS & MANAGEMENT
Paul Samuels, M.D.

CARDIOLOGY ROUNDS are conducted on alternate Mondays, 8:30–9:30 a.m., in the Community Room.
Clement Weinstein, M.D. and Staff

ECG & CLINICAL CARDIOLOGY CONFERENCES are held on alternate Thursdays, from Noon to 1:00 p.m.
Francis E. Raia, M.D.

DENTAL
*Community Room
11:45 a.m.–12:45 p.m.
March 9
PERIODONTICS & SYSTEMIC DISEASE
Bernard Klersfled, D.D.S.

NUTRITION
March 30
PROBLEMS & MANAGEMENT OF THE OSTOMY PATIENT
Therese Haus, R.N., E.T.

OPHTHALMOLOGY
March 2
PEDIATRIC OPHTHALMOLOGY
Darryl Hall, M.D.

ORTHOPEDICS
March 16
REVIEW OF COMMON FRACTURES
Ernesto Seldman, M.D.

RADIOLOGY
March 23
THE CHEST
Emerick Demeter, M.D.

ENDOCRINOLOGY & METABOLISM
*Community Room
10:45–11:45 a.m., Tuesday
March 24
PHEOCHROMOCYTOMA
Edward Condon, M.D.

ENDOCRINOLOGY ROUNDS are conducted monthly, from Noon to 1:00 p.m., in the Community Room, on Tuesdays.
Howard D. Kolodny, M.D. and Staff

HEMATOLOGY
*Community Room
10:45–11:45 a.m., Tuesdays
March 17
IMMUNE HEMOLYTIC ANEMIA
William Christenson, M.D.

HEMATOLOGY GRAND ROUNDS are conducted weekly, on Fridays, from 1:00–2:30 p.m., in the First Floor Conference Room

The following *HEMATOLOGY LECTURE* will be held on Wednesdays, from 9:00 to 10:30 a.m., in the Trump Pavilion: *MEDICAL GRAND ROUNDS-PROGRESS IN MEDICINE*
March 11
DIC IN THE 1980's
Ralph L. Nachman, M.D.

HEMATOLOGY CONFERENCES are conducted monthly, from noon to 1:00 p.m., in the Community Room, on Tuesdays.
Malcolm E. Levine, M.D. and Staff

NEPHROLOGY
*Community Room
10:45–11:45 a.m.
March 10
TOXIC NEPHROPATHY
T. K Sreepada Rao, M.D.

NEPHROLOGY ROUNDS are conducted monthly, from noon to 1:00 p.m., in the Community Room, on Tuesdays.
Amarjit Singh, M.D. and Emmanuel B. Masih, M.D. and staff.

NEUROLOGY
*Community Room
10:45–11:45 a.m., Tuesdays
March 3
HEADACHES
Ricardo L. Rengifo, M.D.

NEUROLOGY ROUNDS are conducted monthly, from noon to 1:00 p.m. in the Community Room on Tuesdays.
Alfred C. Bannerman, M.D.

TUESDAYS, the second Tuesday of the month, *INFECTIOUS DISEASE ROUNDS* are conducted from 3:30–4:30 p.m., in the Community Room.
Robert H. Lapin, M.D.

MEDICAL GRAND ROUNDS AND PROGRESS IN MEDICINE
*Trump Pavilion
9:00–10:30 a.m., Wednesdays
March 4
CLINICAL CONSEQUENCES OF DIGOXIN METABOLISM
John Lindenbaum, M.D.
March 11
DIC IN THE 1980's
Ralph L. Nachman, M.D.
March 18
INTERFERON IN CANCER
Susan Krown, M.D.
March 25
ADVENTURES IN LIVER LAND
Irwin M. Arias, M.D.

WEDNESDAY, 1:00–2:00 p.m., *TUMOR BOARD*—Fourth Wednesday, *CLINICAL PATHOLOGY CONFERENCE*
Assembly Room

INFECTIOUS DISEASES
*Community Room
10:45–11:45 a.m., Thursdays
March 19
C.N.S. INFECTIONS: BACTERIAL, FUNGAL & VIRAL
Robert H. Lapin, M.D.

INFECTIOUS DISEASES ROUNDS are conducted on the Second Tuesday, from 3:30 to 4:30 p.m., in the Community Room.
Robert H. Lapin, M.D.

ONCOLOGY
*Community Room
10:45–11:45 a.m., Thursdays
March 5
NEUROLOGICAL COMPLICATIONS OF CANCER
Alfred C. Bannerman, M.D.

The following *ONCOLOGY LECTURES* are held on Wednesdays, from 9:00–10:30 a.m., in the Trump Pavilion; *MEDICAL GRAND ROUNDS-PROGRESS IN MEDICINE*
March 18
INTERFERON IN CANCER
Susan Krown, M.D.

PULMONARY DISEASE
*Community Room
10:45–11:45 a.m., Thursdays
March 12
THE DIAGNOSTIC VALUE OF SWAN-GANZ CATHETER & OTHER MONITORING PROCEDURES
James Vevaina, M.D.

PULMONARY DISEASES ROUNDS are conducted monthly, from Noon to 1:00 p.m., in the Community Room, on Thursdays.
Gerald M. Greenberg, M.D. and Staff

RHEUMATOLOGY
*Community Room
10:45–11:45 a.m., Thursdays
March 26
CLINICAL ASPECTS OF IMMUNE COMPLEX DISEASE
Eric S. Schned: M.D.

RHEUMATOLOGY ROUNDS are conducted monthly, from Noon to 1:00 p.m., in the Community Room, on Thursdays.
William A. O'Connell, M.D. and Staff
ALTERNATE THURSDAYS, Noon–1:00 p.m., *ECG & CLINICAL CARDIOLOGY CONFERENCES*
Francis E. Raia, M.D.
MEDICAL GASTROENTEROLOGY
*Community Room
10:45–11:45 a.m., Fridays
March 6
BREATH TESTS IN DIAGNOSIS OF HEPATIC & GI PATHOLOGY
Mary Jeanne, M.D.
March 20
ALCOHOLIC LIVER DISEASE
Frank M. Klion, M.D.

The following *GASTROENTEROLOGY LECTURES* are held on Wednesdays, from 9:00–10:30 a.m., in the Trump Pavilion:
MEDICAL GRAND ROUNDS–PROGRESS IN MEDICINE
March 4
CLINICAL CONSEQUENCES OF DIGOXIN METABOLISM
John Lindenbaum, M.D.
March 25
ADVENTURES IN LIVER LAND
Irwin M. Arias, M.D.

MEDICAL GASTROENTEROLOGY ROUNDS are conducted on alternate Fridays, in the Community Room, 10:45–11:45 a.m.
Robert T. Todaro, M.D. and Staff
FRIDAYS, Noon to 1:00 p.m., Assembly Room *RADIOLOGY CONFERENCES*
Emerick Demeter, M.D. and Staff, alternating with
MEDICAL-PATHOLOGY-MORTALITY CONFERENCE
Elizabeth Khayat, M.D. and Staff
FRIDAYS, 1:00 to 2:30 p.m., First Floor Conference Room
HEMATOLOGY GRAND ROUNDS
For further information contact The Jamaica Hospital, 89th Avenue and Van Wyck Expressway, Jamaica 11418. Tel: 212/657-1800.

NASSAU

Long Beach Memorial Hospital Cosponsored by The Page and William Black Post-Graduate School of Medicine of the Mount Sinai School of Medicine (CUNY)

455 E. Bay Drive
Long Beach
March 3, 3:00–6:00 p.m.
TRANSIENT ISCHEMIC ATTACKS
A SYMPOSIUM
Seymour Gendelman, M.D., Michael Sacher, M.D., Moshe Haimov, M.D.
NO FEE CREDIT: AMA Cat. 1
For further information contact Community Relations Department, Long Beach Memorial Hospital, 445 E Bay Drive, Long Beach 11561. Tel: 516/432-8000, ext 362 or 363.

Long Island Jewish-Hillside Medical Center

New Hyde Park
*Teaching Center Auditorium
The Department of Pediatrics
March 4 through June 6, 8:00–10:00 p.m., Wednesdays
THE 11TH ANNUAL PEDIATRIC BOARD REVIEW COURSE
I. Ronald Shenker, M.D.
CREDIT: AMA Cat. 1 (28 hrs.)
For further information contact Continuing Education Coordinator, Long Island Jewish-Hillside Medical Center, New Hyde Park 11042. Tel: 212/470-2114.

Long Island Jewish-Hillside Medical Center & The Post Graduate Institute for Medical and Dental Education, New Hyde Park and the Health Sciences Center, SUNY (Stony Brook)

*Teaching Center Auditorium, Room 201C
Long Island Jewish-Hillside Medical Center
New Hyde Park
8:30–9:30 a.m., Thursdays
WEEKLY MORTALITY AND MORBIDITY CONFERENCE FROM 8:00 a.m.–8:30 a.m., PRECEEDS SURGICAL GRAND ROUNDS
March 5
GUEST LECTURER
THE SURGEON AS AN ANATOMIST
Ralph Ger, M.D.
March 12
REPORT OF THE MEETING OF THE CENTRAL SURGICAL ASSOCIATION
(Meeting: 3/4–3/7, Dearborn, Michigan)
March 19
VISITING PROFESSOR
CURRENT STATUS OF PARIETAL CELL VAGOTOMY
Paul H. Jordan, Jr., M.D.
March 26
CEREBRAL REVASCULARIZATION
Robert Decker, M.D.
NO FEE CREDIT: AMA Cat. 1
For further information contact Reid Aaron, Long Island Jewish-Hillside Medical Center, New Hyde Park 11042. Tel: 212/470-2663.

Nassau County Medical Center

2001 Hempstead Turnpike
East Meadow
*Amphitheater Dynamic Care Building
10:00 a.m., Thursdays
March 5
CEREBRAL VASCULAR DISEASE
Dennis Giblin, M.D.
March 12
COMPUTERIZED TOMOGRAPHY OF THE CHEST
Joseph P. Whalen, M.D.
March 19
HORMONAL INTERACTIONS IN THE CONTROL OF BLOOD GLUCOSE
Philip Felig, M.D.
March 26
IMMUNE DEFICIENCY DISEASES
Mark Kaplan, M.D.
CREDIT: AMA Cat. 1
For further information contact Ethel Ford, CME Coordinator, Department of Medicine, Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow 11554. Tel: 516/542-3713.

Nassau County Medical Center

2201 Hempstead Turnpike
East Meadow
March 27
INTRA-OCULAR LENS PANEL DISCUSSION
Drs. Greenspan, Nauheim, Nelson, Collins, & Sussman
For further information contact Elsa K. Rahn, M.D., Director, Division of Ophthalmology, Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow 11554. Tel: 516/542-1023.

Nassau Hospital

259 First Street
Mineola
March 24

FAMILY PRACTICE
SEEK AND YOU SHALL FIND
DERMATOLOGICAL SEMINAR, PART III
Ralph W. Grover, M.D.
INTERNAL MEDICINE
*Breed Conference Room
11:00 a.m., Mondays
PRIMARY CARE CONFERENCES
March 2
FADS AND FALLACIES IN LABORATORY TESTING
Joseph G. Fink, M.E.
March 9
DIAGNOSIS OF CUTANEOUS SYSTEMIC DISEASES
Frank De Mento, M.D.
March 16
BRAIN FAILURE IN THE ELDERLY—NEITHER INEVITABLE NOR IRREPARABLE
David Mumford, M.D.
March 23
SURGICAL ASPECTS OF URINARY LITHIASIS
Sheldon Rudansky, M.D.
*Auditorium
March 30
RADIOLOGICAL INTERPRETATION OF TRAUMA
Seymour Cagan, M.D.
CRITICAL CARE CONFERENCES
*Breed Conference Room
11:00 a.m., Tuesdays
March 3
NOSOCOMIAL INFECTIONS
Burke A. Cunha, M.D.
March 10
DIABETIC KETOACIDOSIS
John F. Aloia, M.D.
March 17
ACUTE SMALL AND LARGE BOWEL OBSTRUCTION
Robert Bartolomeo, M.D.
March 24
ANTITHROMBOTIC (THROMBOLYTIC) THERAPY
Bernard Castle, M.D.
*Auditorium
March 31
PHARMACOLOGY AND PHARMACOKINETICS OF CARDIAC MEDICATIONS USED IN THE CORONARY CARE UNIT
Lester Merritts, M.D.
*Breed Conference Room
10:00 a.m.–Noon, Wednesdays
ADVANCES IN MEDICINE
March 14
9:00 a.m.–1:00 p.m.
SYMPOSIUM—INFECTIOUS DISEASE
Vincent Andriole, M.D., Jack L. LeFrock, M.D., Richard Quintiliani, M.D., Leon G. Smith, M.D.
March 11
HYPERPARATHYROIDISM
Robert Lang, M.D.
March 18
UPDATE ON SURGERY FOR PEPTIC ULCER DISEASE
Avram Cooperman, M.D.
March 25
MODERN MANAGEMENT OF METASTATIC CANCER OF THE BREAST
Richard Kaufman, M.D.
*Breed Conference Room
11:00 a.m., Fridays
PROBLEM SOLVING
March 6
MUSCLE AND NEUROMUSCULAR DISEASES
Sydney Louis, M.D.
March 13
MANAGEMENT OF STABLE DIABETES—II
John F. Aloia, M.D.
March 20
CANCER OF THE COLON—EPIDEMIOLOGY AND DIAGNOSIS
Bertram Fuchs, M.D.
*Auditorium
March 27
THE DIFFERENTIAL DIAGNOSIS OF MEGALOBLASTIC ANEMIAS
Norbert Felber, M.D.
OBSTETRICS-GYNECOLOGY
*Breed Conference Room
8:00 a.m.
MEDICAL LECTURE SERIES
March 13
BASICS OF CHEMOTHERAPY
Lawrence Bilsky, M.D.
UPDATE IN GYNECOLOGIC ONCOLOGY
*Breed Conference Room
9:00 a.m.
March 27
UPDATE ON BREAST CARCINOMA
UPDATE IN GYN AND OBSTETRICAL PATHOLOGY
*Breed Conference Room
8:00 a.m.
March 6
PATHOLOGY OF THE VULVA AND VAGINA
March 20
NEONATAL PATHOLOGY
UPDATE IN GYNECOLOGIC ENDOCRINOLOGY
*Breed Conference Room
9:00 a.m.
March 6
SECONDARY AMENORRHEA II
Raymond L Vande Wiele, M.D.
UPDATE IN PERINATOLOGY
*Breed Conference Room
9:00 a.m.
FETAL MONITORING UPDATE—SCALP PH
OPHTHALMOLOGY
*Board Room
5:00 p.m., Tuesday
MODERN TRENDS IN OPHTHALMOLOGY
March 3
MANAGEMENT OF ESOTROPIA
Joseph Goldstein, M.D.
PEDIATRICS
*6 New Conference Room
1:00 p.m., Thursdays
NEONATAL LECTURE SERIES
March 26
FETAL AND NEONATAL GROWTH AND DEVELOPMENT
PERINATAL/NEONATAL CONFERENCE
Paul F. Twist, D.O.
*Breed Conference Room
12:00 Noon, Fridays
March 6
MORBIDITY AND MORTALITY CONFERENCE
March 13
PERINATAL ADDICTIONS
March 20
PERINATAL CASE STUDIES
March 27
ASPHYXIA IN THE FETUS AND NEWBORN
RADIOLOGY GUEST LECTURE SERIES
*Breed Conference Room
3:00 p.m., Thursdays
March 5
THE INNER EAR
Guy Potter, M.D.
UROLOGY
*Breed Conference Room
7:45 a.m., Tuesdays
GUEST LECTURES
NEWER ASPECTS OF URINARY TRACT RECONSTRUCTION
Stanley J. Kogan, M.D.

For further information contact G E. Lessard, Ph.D., Nassau Hospital, 259 First Street, Mineola 12501. Tel: 516/663-2521.

SUFFOLK

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200 Belle Terre Road
Port Jefferson
•St. Charles Lecture Room
March 2, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
•St. Charles Classroom "A"
March 6, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
•St. Charles Lecture Room
March 9, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
•St. Charles Classroom "A"
March 13, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
•St. Charles Board Room
March 16, 7:00 a.m.
ANESTHESIOLOGY CONFERENCE
HEAD TRAUMA
Edward A. Norris, M.D.
•St. Charles Lecture Room
March 16, 7:30 a.m., Monday
OPHTHALMOLOGY CONFERENCE
PEDIATRIC UPDATE
Alfred J. Cossari, M.D.
March 16, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
•St. Charles Classroom "A"
March 20, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
•St. Charles Lecture Room
March 23, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
CAUTERIZATION IN MALIGNANT LESIONS OF THE RECTUM
John L. Madden, M.D.
•St. Charles Classtroom "A"
March 27, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
•St. Charles Lecture Room
March 30, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
For further information contact Mary Rotolo, Department of Medical Education, St. Charles Hospital, 200 Belle Terre Road, Port Jefferson 11777. Tel: 516/473-2800.

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North Country Road
Port Jefferson
March 3, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
APPROACHES TO THE DIAGNOSIS OF MINIMAL BREAST CANCER AND RELATED CONDITIONS
Fred Gorstein, M.D.
March 10, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
CRITICAL CARE OF THE SURGICAL PATIENT
Richard Dranitzke, M.D.
March 11, 7:30 a.m., Wednesday
PSYCHIATRIC CONFERENCE
NEUROENDOCRINE FACTORS IN THE TREATMENT OF DEPRESSION
Thomas Meehan, M.D.
March 17, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
ANTIBIOTIC UPDATE
Burke A. Cunha, M.D.
For further information contact Mary Rotolo, Department of Medical Education, Mather Memorial Hospital, North Country Road, Port Jefferson 11777. Tel: 516/473-1320.

Brookhaven Memorial Hospital Medical Center

101 Hospital Road
Patchogue
•1st Floor Conference Room
8:00–9:00 a.m.
March 3, Tuesday
NEONATOLOGY CASE REVIEW
Rita Harper, M.D.
March 6, Friday
CLINICAL MANAGEMENT OF PATIENTS WITH CHRONIC OBSTRUCTIVE LUNG DISEASE
Ira Rezak, M.D.
March 13, Friday
PSORIASIS
Abraham Zelong, M.D.
March 27, Friday
ACNE
Otto Mills, Ph.D.
CREDIT: AMA Cat. 1 & AAFP
•1st Floor Conference Room
8:30 a.m.
March 7, Saturday
MEDICAL GRAND ROUNDS
Douglas Brand, M.D.
CREDIT: AMA Cat. 1 & AAFP
For further information contact Dorothy S. Lane, M.D., Director of Medical Education, Brookhaven Memorial Hospital Medical Center, 101 Hospital Road, Patchogue 11772. Tel: 516/654-7000.

SUNY at Stony Brook

•Health Sciences Center
March 16–20
SEVENTH ANNUAL FAMILY MEDICINE REVIEW COURSE
FEE: $300. CREDIT: AMA Cat. 1
For further information contact State University of New York at Stony Brook, 11794. Tel: 516/246/2094, 2135.

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Valhalla
•INSTRUCTIONAL TELEVISION PRESENTATION
March 5
BASIC SCIENCE DIALOG (LIVE)
RESPIRATORY PHYSIOLOGY
March 12
SEMINAR IN CANCER EDUCATION (PRETAPED)
ESOPHAGEAL AND GASTRIC TUMORS
March 19
SEMINAR IN CANCER EDUCATION (LIVE)
SOFT TISSUE SARCOMAS
March 26
SEMINAR IN CANCER EDUCATION (PRETAPED)
MULTIMODAL BASIC PRINCIPALS OF CANCER THERAPY

For further information contact Saverio S. Bentivegna, M.D., Associate Dean Director, Continuing Medical Education, New York Medical College, Valhalla 10595. Tel: 914/347-5147.

BUFFALO

Roswell Park Memorial Institute and the American Cancer Society, New York State Division and Erie County Unit

666 Elm Street
Buffalo
*Hilleboe Auditorium
March 7
MULTIMODAL TREATMENT OF MELANOMA
E. Douglas Holyoke, M.D.
FEE: $25. CREDIT: AMA Cat. 1 & AAFP & AOA Cat. 2

For further information contact Gayle Bersani, Coordinator, Cancer Control Office, Roswell Park Memorial Institute, 666 Elm Street, Buffalo 14263, Tel: 716/845/4406.

State University of New York at Buffalo and The Children's Hospital

219 Bryant Street
Buffalo
*Sarasota Hyatt House
Sarasota, Florida
March 26–28
ANNUAL UPDATE ON INFECTIOUS DISEASE
Drs. Pearay L Ogra, Elliot F. Ellis
FEE: $225. CREDIT: AMA Cat. 1 (13 hrs.)

For further information contact Rayna Dutton, Coordinator, Continuing Medical Education, Children's Hospital, 219 Bryant Street, Buffalo 14222. Tel: 716/878-7689.

FUTURE EVENTS

State University of New York at Buffalo and Children's Hospital

219 Bryant Street
Buffalo
*Sheraton Inn-Buffalo East
Buffalo
April 11
A PERINATAL APPROACH TO PREVENTION AND MANAGEMENT OF NEONATAL RESPIRATORY DISTRESS
Ralph J. Wynn, M.D.
FEE: $50. CREDIT: AMA Cat. 1 (6 hrs.)
*Niagara Hilton Hotel
Niagara Falls
June 18–20
WHAT'S NEW IN DIAGNOSTIC PROCEDURES OF PEDIATRIC LUNG DISEASES
Gerd J. A. Cropp, M.D., Ph.D.
FEE: $200. CREDIT: AMA Cat. 1 (14 hrs.)
*Buffalo Hilton Hotel
Buffalo
June 25–26
THE 1ST NATIONAL CONFERENCE ON PEDIATRIC NEPHROLOGY/UROLOGY
Drs. Tadla Baliah, Joseph Y. Dwoskin, Irme V. Magoss
FEE: $200. CREDIT: AMA Cat. 1 (14 hrs.)
July 16–18
THE 4TH NATIONAL BUFFALO CONFERENCE ON PEDIATRIC/ADULT ALLERGY AND CLINICAL IMMUNOLOGY
Drs. Elliott Middleton, Jr. and Elliot F. Ellis
FEE: $225. CREDIT: AMA Cat. 1 (16 hrs.)
July 23–25
THE 12th ANNUAL ADVANCES IN PEDIATRICS
Elliot F. Ellis, M.D.
FEE: $200. CREDIT: AMA Cat. 1 (14 hrs.)
*Niagara Falls International Convention Center
Niagara Falls
August 31–September 2
INTERNATIONAL PROGRAM ON CONTROVERSIES IN PEDIATRIC AND ADOLESCENT HEMATOLOGY/ONCOLOGY
Drs. Arnold I. Freeman and James R. Humbert
FEE: $200. CREDIT: AMA Cat. 1 (16 hrs.)
*Buffalo Hilton Hotel
Buffalo
September 11–13
DIABETIC PREGNANCY AND THE INFANT
Ralph J. Wynn, M.D.
FEE: $200. CREDIT: AMA Cat. 1 (14 hrs.)

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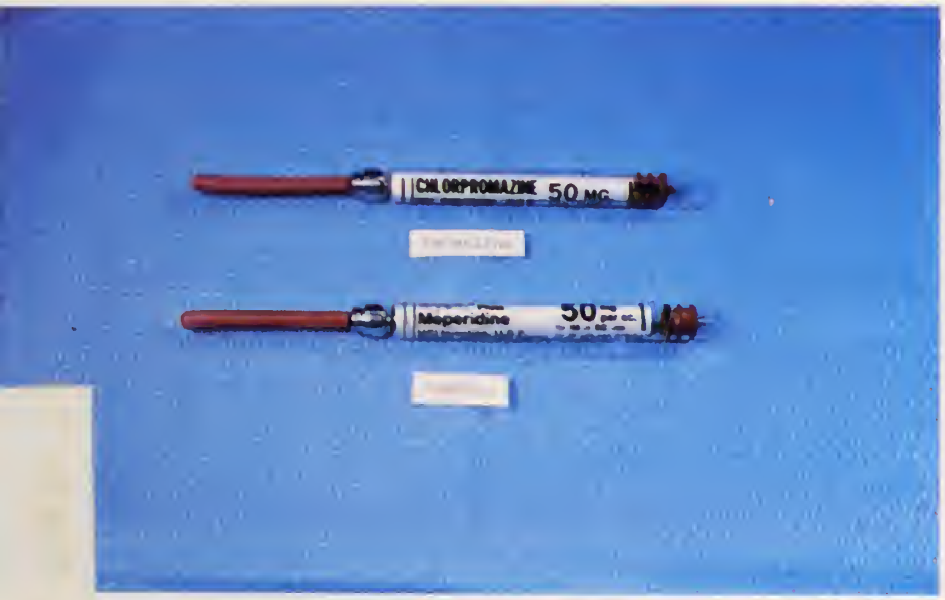

Cartridges containing different medication but different in appearance. (Courtesy of Boardman C. Wang, M.D.). See page 395.

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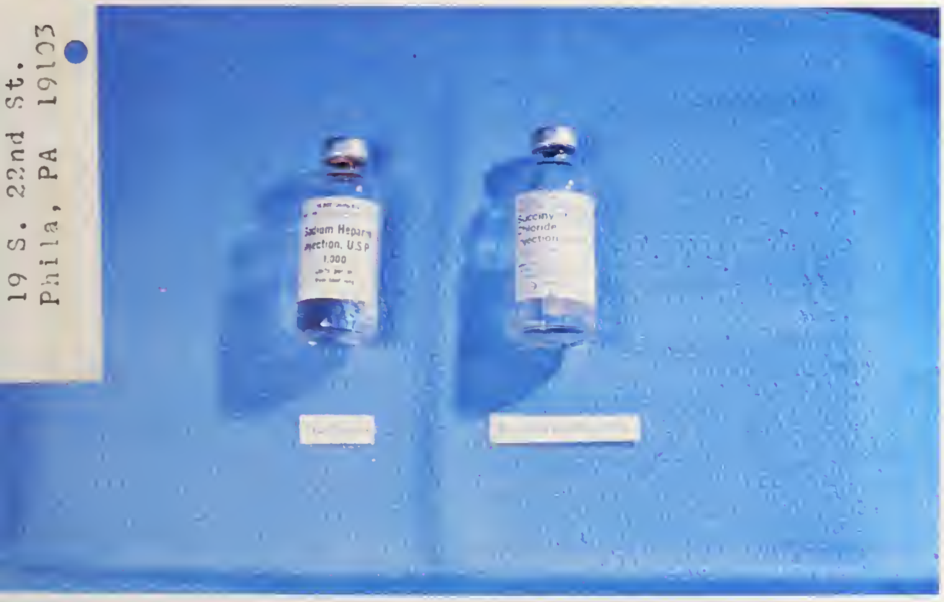

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Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

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Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

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Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction With these exceptions, most of the side effects occur after repeated administration of large doses

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DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS

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New York State Journal of Medicine (ISSN 0028-7628)

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Letters to the Editor

Discovery of the x-ray and Lenard's priority claim

To the Editor: In their article "Röntgen's discovery of x-ray and Lenard's priority claim" (New York State J. Med. 80: 1623 (Sept.) 1980) Drs. Kraft and Finby deal with the controversy concerning the true discoverer of the new kind of rays at the University of Würzburg in 1895/96.

The report reminded me of a story which circulated widely in Wuerzburg during the 1920s when I was a young medical student at that University. According to the story, neither Röntgen nor Lenard discovered the x-rays. The real discoverer, allegedly, was an anonymous *Diener*, that is, the cleaning man who would enter Professor Röntgen's laboratory every night in order to polish the tubes, clean the floor, and set the room straight for the next morning.

One day this workman—so the story went—told the professor that he had to quit his job, because he was terribly frightened. On entering the room at darkness, he would see mysterious bones and a "dead man's skull" on the fluorescent screen in the laboratory. This scared him so much, the man allegedly said, that he did not dare continue his work as a cleaner and had to stop it. Thereupon, Professor Röntgen, a highly scrupulous researcher, examined the *Diener's* complaint, tested the tubes, screen, electric apparatus, and so forth again and again; he explored everything anew, and thus arrived at the great discovery.

Though the story was not fully believed in Wuerzburg, it circulated in that city for many years, and may still do so today. As a psychoanalyst, I am inclined to view the widespread yarn as an expression of a "patricidal" fantasy: the originator, that is the "father" of great innovative deeds has to be eliminated or at least discredited. The same happened to Columbus in our days.

WILLIAM G. NIEDERLAND, M.D.
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Dr. Kraft's reply

To the Editor: In reply to W. G. Niederland, M.D.'s letter of September 28, 1980, regarding our article titled "Röntgen's discovery of the x-ray and Lenard' priority claim," September, 1980, p. 1623:

The anonymous DIENER referred to in the letter is MARSTALLER. Quite a few fictitious stories circulated around him and other technical assistants. In a reflection, Röntgen wrote to his friend L. Zehnder (1854–1949): . . . "When something happens as with me, the envious are bound to spring up like weed in a green pasture. Let the bedeviled blabbermouths chatter and may the wind scatter their ashes."

A former student in a personal letter to us also recalls the gossip emanating from Heidelberg: "When I studied in Heidelberg (1918–1920) I was amazed that Lenard presented in his physics course the discovery as something *anybody* could have hit upon after *his* work on cathode rays. Various members of the medical faculty also told me as a fact that Lenard had been an assistant of Röntgen (!!) and Röntgen had stolen the discovery from him. I was pleased that I could set some people straight but found it amazing how credulous scientists are as soon as they are not dealing with their own specialty."

When I started on my premedical courses at Munich in 1917, I was shocked to hear of the various blasphemous accusations. On attending Röntgen's lectures, I soon became convinced that nobody but Röntgen could have made the great discovery. I even had the unforgettable experience of his personal guidance at the optional "practical course" in 1919.

Dr. Niederland's idea of a *patricidal fantasy* certainly fits well into the still lingering controversy over the discoverer of the x-ray. His comments are greatly appreciated.

ERNEST KRAFT, M.D.
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Amsterdam Avenue at 114th Street
New York, N.Y. 10025

Physiologic myopia*

To the Editor: It was unnecessary for Dr. Reese* to deny any implication from my letter (80: 1357 (Aug.) 1980) since there was none intended.

ARTHUR ALEXANDER KNAPP, M.D.
The Volney
23 East 74th Street
New York, N.Y. 10021

Major research project on criminal violence

To the Editor: Our Center is conducting a major research project on criminal violence, sponsored by the National Institute of Justice. Part of the research mandate is to create an information clearinghouse. A primary objective is to compile a comprehensive list of completed, ongoing, and projected research on criminal violence and of research related to criminal violence. The list will then be made available to the interested research community. We anticipate that the compilation will promote the communication of research findings, encourage collaboration, hence, the exchange of ideas, and, consequently, generate new research contributions.

For these reasons we would like to locate existing research on criminal violence. One of the ways that we in-

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* Reese, A. B.: Physiologic myopia, New York State J. Med. 80: 1908 (Nov.) 1980.

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Abstracts

Mosenthal, A. C., Mones, R. L., and Bokkenheuser, V. D.: *Campylobacter fetus jejuni* enteritis in New York City, **New York State J. Med. 81:** 321 (Mar.) 1981.

During a one-year period, we isolated *Campylobacter fetus* ss *jejuni* from fecal specimens of 16 of 260 (6.1 percent) New Yorkers with diarrhea and of 1 of 121 (0.8 percent) controls. The incidence was highest among children 2 to 14 years old and equaled that of enteric salmonellosis and shigellosis combined. The disease was characterized by fever and mild-to-moderate diarrhea, occasionally with bloody stools; vomiting and abdominal pain occurred in 30 to 40 percent of the cases. The patients recovered spontaneously or following erythromycin treatment.

Greenwald, E. D., Greenwald, E. S. and Brenner, S. M.: Extrahepatic bile duct cancer, **New York State J. Med.** 81: 324 (Mar.) 1981.

An increased number of self-referred patients with extrahepatic bile duct cancer have been seen at Montefiore Hospital and Medical Center in the last ten years. Although improved diagnostic methods may partially explain this phenomenon, actual increased incidence is suggested. The literature is reviewed for known causative factors in extrahepatic bile duct cancer. Transhepatic cholangiography, routinely carried out in extrahepatic bile duct cancer patients, would be a good source of bile for study of carcinogenic and mutagenic activity.

Siegel, J. H., Harding, G. T., Chateau, F., Sherman, H. I., Davis, R. C., Jr., and Webb, W. A.: Percutaneous endoscopic extraction of retained stones: endoscopic extraction from common bile duct and gallbladder, **New York State J. Med. 81:** 327 (Mar.) 1981.

Although retained common-duct stones occur infrequently after exploration of the common bile duct, this clinical condition, which formerly required repeat surgical procedures, has more recently been successfully treated with nonsurgical methods. The placement of a T-tube at surgery provides a percutaneous route through which catheters and collapsible baskets can be passed when the sinus tract has matured. This technique, however, requires the use of fluoroscopy with continuous monitoring to accomplish the identification, entrapment, and extraction of a stone. Although the technique is safe, it exposes the patient and health personnel to irradiation. We have successfully employed a flexible bronchoscope, Olympus BF-4B2, modified with a suction-irrigation valve from the flexible choledochoscope, CHF-B3, in 13 patients without complication. This direct endoscopic technique enables the endoscopist to examine the biliary ducts as well as to entrap and extract stones more expeditiously and with less radiation than with the catheter technique. Since the endoscopic technique is safely performed and offers expanded capabilities we recommend PEERS (percutaneous endoscopic extraction of retained stones) for general use.

Boyce, J., Fruchter, R., Thompson, M., and Conly, C.: Cervical cancer screening: need among hospital inpatients, **New York State J. Med. 81:** 331 (Mar.) 1981.

Female inpatients (3,626) on the medical, surgical, and rehabilitation services in a public hospital and a university hospital (referral and private patients) were screened for cervical cancer. Abnormal cytology warranting biopsy was found in 10 to 14 women per 1,000 women screened. At the public hospital, 49 percent of women were eligible for screening, compared to 25 percent at the university hospital. However, more older than younger women were eligible at both hospitals. Further screening efforts should concentrate on low-income communities, and especially public institutions.

Rubins, J., Adams, V., Winchester, J., and Woll, J. E.: Metastatic carcinoma; insensitivity of buffy coat preparations, **New York State J. Med. 81:** 336 (Mar.) 1981.

The usefulness of buffy coat smears was studied in 92 cases of metastatic carcinoma. Eighty-one patients, Group I, had no clinical evidence of bone marrow metastases while 11 patients, Group II, had documented marrow involvement due to tumor. In neither group did buffy coat examination provide information not available from the routine peripheral blood smear. In contrast with previous studies, circulating cancer cells were not identified in any of these patients.

Kirschner, P. A.: Lung cancer; preoperative radiation therapy treatment, **New York State J. Med. 81:** 339 (Mar.) 1981.

Forty-eight patients with stage III (AJC) lung cancer were treated by preoperative radiation and surgery, with mediastinoscopy the basis for case selection. Forty-one patients were N2, five T3, and two T3, N2; adenocarcinoma was the most common cell type (64.6 percent). Of the 47 patients explored, 45 underwent resection, with a resectability rate of 95.7 percent. There were no surgical complications or operative deaths. There were 27 patients who died of disseminated carcinoma, and 5 who are living with cancer. Brain metastases occurred in 13 of 27 patients who died and 1 of 5 living with cancer. Local intrathoracic control was achieved in most patients. The five-year cure rate (life-table method) was 18 percent, with a median survival rate of 24 months. There are five long-term, cancer-free survivors, one is still alive and well more than 11 years after surgery.

Sussman, L. N., and Gilja, B. K.: Blood grouping tests for paternity and nonpaternity, **New York State J. Med.** 81: 343 (Mar.) 1981.

Newer aspects of blood testing for genetic markers has improved the exclusion rate of falsely accused men and leads to a "probability of paternity" approaching 99.9 percent. The results of 3,000 paternity cases indicate that only a 65 percent exclusion rate can be obtained by the use

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Abstracts in Interlingua

Mosenthal, A. C., Mones, R. L., e Bokkenheuser, V. D.: Enteritis per *Campylobacter fetus jejuni* in le Citate de Nove York, **New York State J. Med.** 81: 321 (Martio) 1981

Durante un periodo de un anno, le *Campylobacter fetus*, species *jejuni* esseva isolate de monstras de feces de 16 intra 260 (6.1 pro cento) de Nove Yorkers con diarrhea, e in un de 121 (0.8 pro cento) del controlos. Le frequentia esseva plus elevate in pueros de 2 a 14 annos de etate e iste mesme frequentia esseva observate in casos de salmonellosis e shigellosis combinate. Le morbo esseva characterisate per febre, diarrhea de leve a moderate, occasionalmente con feces con sanguine. Vomitos e dolores abdominal esseva presente in le 30 al 40 pro cento del casos. Le patientes rocoverava se spontanemente, o depost del tractamento con erythromycina.

Greenwald, E. D., Greenwald, E. S., e Brenner, S. M.: Cancer extrahepatic del conducto biliari, **New York State J. Med.** 81: 324 (Martio) 1981.

Un numero crecente de patientes auto-referite con cancer extrahepatic del conducto biliari ha essite examinate in le Hospital Montefiore e Centro Medic in le ultime 10 annos. Ben que le methodos diagnostic melliorate pote explicar partialmente iste observation, es suggerite, al presente, un frequentia in augmento. Le litteratura esseva revistite per cognoscer le factores causal in le cancer extrahepatic del conducto biliari. Le cholangiographia transhepatic, facite rutinarimente in le patientes con iste cancer extrahepatic del conducto biliari es un bon fonte per le studio del activitate carcinogenic e mutagenic.

Siegel, J. H., Harding, G. T., Chateau, F., Sherman, H. I., Davis, R. V., Jr., e Webb, W. A.: Extraction de calculos retenite mediante le endoscopia percutanee; extraction endoscopic del choledoco e vesicula biliari, **New York State J. Med.** 81: 327 (Martio) 1981.

Ben que le calculos retenite in le choledoco presenta se infrequentemente depost le exploration de iste conducto, iste condition clinic que ante requeriva tractamento chirurgic repetite, recentemente ha essite tractate plus successosemente con methodos non chirurgic. Le tubo T placiate durante le chirurgia proportiona un via percutanee a traves del qual catheteres e bursas collapsibile pote essser pasate quando le via sinusal es disveloppate ("mature"). Nonobstante, iste technica require le uso del fluoroscopio con monitorisation continue pro facer le identification, e poter attrappar e extraer un calculo. Ben que le technica es secur, ille expone al patiente e al personal sanitari al radiation. Nos ha usate successosemente un bronchoscopio flexibile, Olympus BF-4B2, modificate mediante un valvula de suction-irrigation desde le choledoscopio CHF-B3 in 13 patientes; non habeva complicationes. Iste technica endoscopic directe permite al endoscopista le examination del via biliari e etiam le possibilitate de attrappar e extraer le calculos plus expedisiosemente e con minus radiation que con le technica con catheteres. Per que le technica endoscopic es facite securmente e offrece capabilitates de expansion, nos recommenda le extraction endoscopic percutanee per uso general.

Boyce, J., Fruchter, R., Thompson, M., e Conly, C.: Studio selective del cancer cervical; necessitate in patientes hospitalisate, **New York State J. Med.** 80: 331 (Martio) 1981.

Un numero —3626— feminas del servicios medic, chirurgic e de rehabilitation in un hospital public e un hospital unversitari (patientes private e referite) esseva examinate selectivemente per cancer cervical. Le cytologia abnormal requirente biopsia esseva observate in 10 a 14 feminas per 1000 feminas studiate. In le hospital clinic, 44 pro cento del patientes studiate esseva elligibile per le studio selective, in comparation con 25 pro cento del patientes del hospital universitari. Nonobstante, plus feminas de major etate que le plus juvene esseva elligibile in ambe hospitales. In le futuro, le effortios selective debe esser concentrate in le communitates de ingresos basse, e specialmente in establimentos public.

Rubins, J., Adams, V., Winchester, J., e Woll, J. E.: Carcinoma metastatic; insensibilitate del preparationes del strato leukocytari, **New York State J. Med.** 81: 336 (Martio) 1981.

Le utilitate del frotes del strato leukocytari esseva studiate in 92 patientes con carcinoma metastatic. In 81 patientes, Gruppo I, non esseva observate evidentia clinic de metastase del medulla ossee. In cambio, in 11 patientes, Gruppo II, pote se demonstrar un compromisso tumoral evidente in le medulla ossee. In ambe gruppos de patientes, le examination del strato leukocytari proportionava non plus information que le frotes de sanguine peripheric. In contraste con studios previe, le cellulas cancerose circulante non esseva identificate in nulle de iste patientes.

Kirschner, P. A.: Cancer del pulmon; radiotherapia preoperatori, **New York State J. Med.** 81: 339 (Martio) 1981.

Quaranta-octo (48) patientes con cancer del pulmon, Stadio III (AJC), esseva tractate con radiotherapia preoperatori e seguite de chirurgia usante le mediastinoscopia como base per le selection del casos. Quarante-un (41) patientes esseva N2; 5, T3, e 2, T3, N2. Le adenocarcinoma esseva le plus commun (64.6 pro cento). Quaranta-cinque (45) del 47 patientes habeva resection chirurgic—resectabilitate esseva de 95.7 pro cento. Non habeva complicationes chirurgic o morte operatori. Vinti-septe (27) patientes moreva de cancer disseminate e 5 superviveva con cancer. Metastasis cerebral occurreva in 13 de 27 patientes que moreva, e 1 de 5 que viveva con cancer. Le controlo local intrathoracic esseva facite in quasi omne patientes. Le 5 annos pro curation (methodo de vita in lista) esseva observate in 18 pro cento del casos. Le proportion medie de superviventia esseva de 24 menses.

continued on page 434

The predictability of an IV infusion

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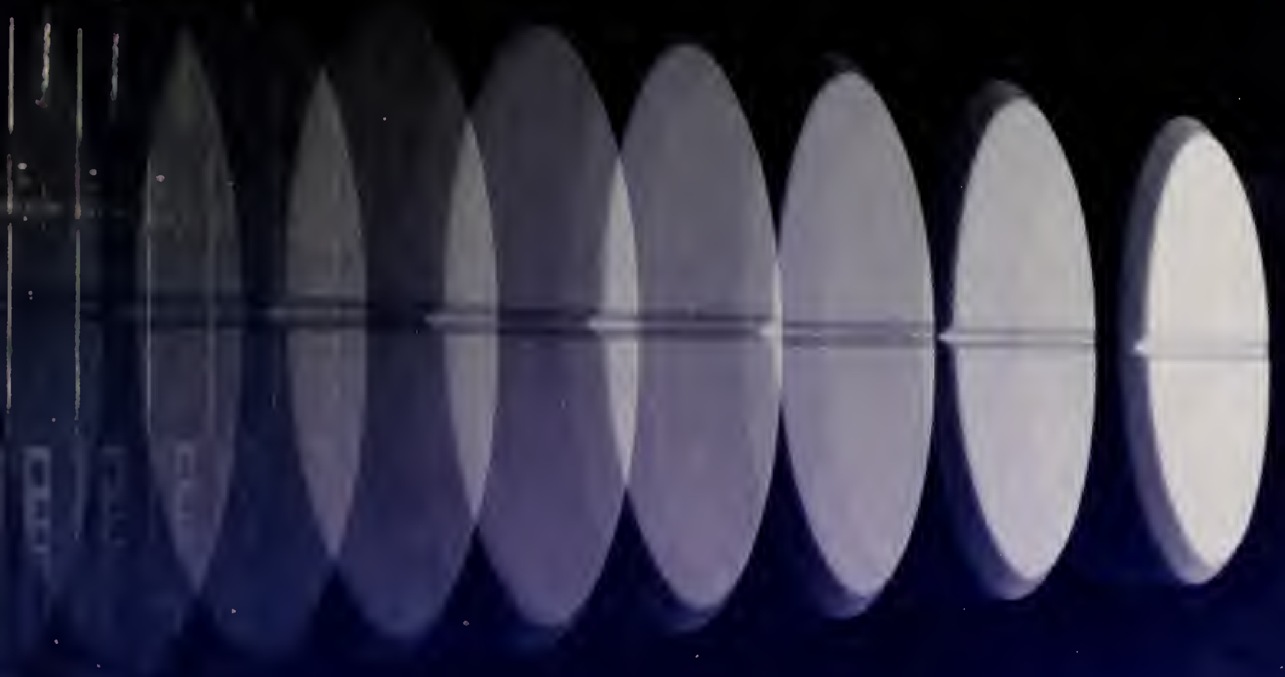

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See following page for a brief summary of prescribing information.

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Usage in Pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development, but neither have adverse effects on fetal development been established. This is, unfortunately, true for most anti-asthmatic medications. Therefore, use of theophylline in pregnant women should be balanced against the risk of uncontrolled asthma.

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Cardiovascular: Palpitation, tachycardia, extrasystoles, flushing, hypotension, circulatory failure, life threatening ventricular arrhythmias.

Respiratory: Tachypnea

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Others: Hyperglycemia and inappropriate ADH syndrome.

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Annotations of Books Received*

PHARMACOLOGY

Introduction to Basic Pharmacology. Oradell, N. J., Medical Economics Company, Book Division, 1981. Paperback, 95 pages. Price, $

A programmed text for a course in basic pharmacology.

DRUG ABUSE

Quantitative Explorations in Drug Abuse Policy. Edited by Irving Leveson. New York, SP Medical 7 Scientific Books, 1980. Illustrated, 191 pages. Hardcover, $35.

The role of the government in social research and how research findings are translated into policies.

BILIARY TRACT

Operative Biliary Radiology. By George Berci, M.D., and J. Andrew Hamlin, M.D. Baltimore, Williams & Wilkins, 1981. Illustrated, 218 pages. Cloth, $37.50.

Advances and new approaches in operative biliary radiology; for the surgeon and radiologist.

COMMUNITY HEALTH SERVICES

The Practice of Community-Oriented Primary Health Care. By Sidney L. Kark, M.D. New York, Appleton-Century-Crofts, 1981. Paperback, 253 pages. Price, $13.50.

Transferring the focus of the primary health care practice from the individual to the community.

HANDICAPPED

Behavioral Psychology in Rehabilitation Medicine: Clinical Applications. Edited by Laurence P. Ince, Ph.D. Baltimore, Williams & Wilkins, 1980. Illustrated, 436 pages. Hardcover, $34.

Application of the principles and methods of behavior modification to the problems of the physically disabled.

ENDOCRINE DISEASES

Perspectives in Clinical Endocrinology. Edited by

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* Books received for review are acknowledged promptly in this column. No other obligation is assumed for the courtesy of those sending them for this purpose. Selection for review is made on the basis of merit and reader interest.

continued on page 424

Books Reviewed

Issues in Health Care Regulation. Richard S. Gordon, Editor. New York, McGraw-Hill Book Company, 1980. Hardcover, 375 pages. Price, $35.

I feel this is an excellent reference book when one is considering regulation vs. deregulation or any of their ramifications. It covers the field in great depth but its applications are really limited to the professional health planner. It would be a potentially good book for the library and a resource for future discussions if they should arise. **Robert J. O'Connor, M.D.**

The Bitter Pill: Doctors, Patients and Failed Expectations. By Martin R. Lipp, M.D. New York, Harper & Row, Publishers, 1980. Hardcover, 204 pages. Price, $10.95.

Dr. Lipp is very articulate and demonstrates his ability to portray the practice of medicine in a highly descriptive manner. He has captured well the various and frustrating problems of medical care. He has the ability to portray very graphically the challenges facing today's physician. His chapters on how various physicians react is well done and should invoke a chorus of nodding heads when read.

Despite all the tribulations of the practice of medicine and the agonies involved both for the patient as well as the physician, it is interesting to note that his love of the profession still conquers all and he carries on despite the system, the price it exacts and the not too promising future.

I picture this book as a very interesting subject for some of the talk shows on TV—"Ladies and gentlemen, our next guest has written a very provocative book on the practice of medicine, and so forth and so forth." **Edward Siegel, M.D.**

Review and Assessment in Family Practice. By Ernest Yuh-Ting Yen, M.D. New York, Appleton-Century-Crofts, 1980. Paperback, 184 pages. Price, $12.95.

Ernest Yen, M.D., Associate Professor of Family Practice at the University of North Dakota, has authored this book in consultation with many leaders of family practice throughout the United States.

Written in the form of "questions and answers" it covers the whole gamut of family practice defining the various terms associated with the specialty and its relationship with other specialties as well as with social workers, physicians' assistants, nurse practitioners, and so forth.

It includes methods of meeting community health needs by family practitioners, both preventative and therapeutic. It defines the various types of medical practice: solo, group, partnership, and HMO, and the common methods of payment for physician services—salary, capitation, and fee-for-service. It includes areas of research suitable for family practitioners and methods of pursuing same.

The book is actually a reference book that should fill the special needs of students, residents, and faculty in family practice as well other primary care specialties. The book is short, concise, and a paperback. I recommend it to anyone in or associated with family practice or anyone interested in learning what family practice is all about. **Martin Markowitz, M.D.**

Pathology Annual: Part II. 1980. Volume 15. Series Editors: Sheldon C. Sommers, M.D., and Paul Peter Rosen, M.D. New York Appleton-Century-Crofts, 1980. Illustrated, 452 pages. Cloth, $35.50.

This volume is a worthy investment for any pathologist who wishes to keep abreast. The topics are wide-ranging but probe deeply with a modern approach, utilizing electronmicroscopy and physical methods particularly. In the pot pourri of subjects some, if not all, are bound to be informative and helpful to all pathologists. There is an element of satisfaction derived in the increase of our knowledge of general pathology in many of the chapters. This is particularly true of the relatively uncommon aspects of onchocerciasis. The volume really brings one up to date in some aspects of early carcinogenesis and recently described tumors, but particularly does it do this in the pneumoconioses. This little volume is just packed with informative stimulating material; it is a worthy investment for all pathologists.

Antibiotics and Chemotherapy: Current Topics. Edited by R. N. Gruneberg, M.R.C. Path. **(Current Status of Modern Therapy: Volume 4)** Baltimore, University Park Press, 1980. Hardcover, 219 pages. Price, $27.50.

This small volume is part of a larger series on modern therapy. The editor and contributors are all British and well-known in their fields. The editor never intended for this volume to be anything more than a series of reviews of selected topics on infectious diseases, however, even as reviews they are hardly outstanding. It is, however, easy reading and does provide the noninfectious disease specialists with a good background in the topics discussed.

The book is divided into 8 chapters, each written by an authority in the field. The topics were selected by the editor as areas of rapidly expanding knowledge. He includes therapy of infective endocarditis, prophylactic therapy, cephalosporin drugs, therapy of anaerobic infection, therapy of gonorrhea and nonspecific genital infections, and polydrug therapy. A quarter of the book is devoted to discussion of the philosophy of antibiotic prescription.

The strength of the book is its presentation of information in a manner that is easily digested. It provides the interested physician with access to a large, sometimes confusing, and constantly expanding body of information. Its lack of detail is a major shortcoming as a reference text and there is a certain amount of dated material. For example, there is no mention of vancomycin therapy or clindamycin—induced colitis or mention that other antibiotics cause the syndrome as well. The figures on incidence, prognosis, and so forth are also omitted.

The book is mediocre and spotty in subject material. However, it is easily read and may be beneficial to a particular group of physicians. There are surely better and more up to date review articles in each area of knowledge to be found in current journals. **Cynthia Schneidler-Brodsky, M.D., and Herbert B. Tanowitz, M.D.**

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Month in Washington

Prime targets for the cost-cutting knives of the new Administration and Congress would appear to be the government's gargantuan entitlement programs such as Social Security, Medicare, and Medicaid which account for 95 percent of the $258 billion budget of the HHS (Health and Human Services Department). The HHS budget is approximately one third of the federal budget.

The Reagan Administration's Health budget—a reworking of the Carter budget—is expected shortly and most likely will contain sweeping changes, particularly in the area of Medicare and Medicaid.

HHS Secretary Richard S. Schweiker pointed out during his confirmation hearings that he would have to work closely with Congress as the entitlement programs are not within the Administration's control.

In Congress, Representatives Richard Gephardt (D., Mo.) and David Stockman (R., Mich.) have reintroduced their pro-competition national health plan that would end federal health planning and remove many of the tax deductions for private health insurance. Stockman has been appointed director of the Office of Management and Budget.

The House and Senate have about completed the selection of committee members, chairmanships, and subcommittee assignments as the lawmakers buckled down for a long and arduous session.

In addition to whatever health legislation that may be proposed by the Reagan Administration, the Congress also faces the task of deciding the fate of a number of major health programs that expire this year. These programs include Health Planning, HMOs, and Health Manpower.

Certainly much of the activity of the new Congress will be centered on the size of the health budget with conservatives determined to make large cuts and liberals digging in to resist the inroads.

* * *

Former Pennsylvania Senator Schweiker breezed through the Senate Finance Committee confirmation hearings for his appointment as HHS Secretary. In addition to his concern with the entitlement programs that consume so much of his budget he said that "more emphasis must be placed on eliminating fraud, waste, and abuse. It will be my intention to give strong support to the Inspector General's Office in this regard and to work closely with the General Accounting Office as well."

As one example, Schweiker said that he intends to work with the Justice Department to attack fraud and abuse of the Medicaid program.

In his prepared statement Schweiker said, "I believe the new Secretary must work closely with the new Administration and the Congress to curb inflation, which has so aptly been termed the cruelest tax of all on the poor and the elderly citizens who rely so heavily on HHS programs."

Schweiker also said that the Reagan Administration

Prepared by the Washington, D.C., office of the American Medical Association.

continued on page 426

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Editorials

From our Executive Vice-President

With my assumption of the office of the Executive Vice-President of the Medical Society of the State of New York, I would want all of our members to know that I am always available for inquiries, consultation, and recommendations from any and all of our readers.

Also, our editor wants our readers to feel free to communicate criticisms as well as constructive suggestions. In this era, survival is a key word and the New York State Journal of Medicine is proud to note that it managed to compete and survive. However, nothing is forever and the Journal will have to meet the challenge of the 80s. We welcome all thoughts and viewpoints of our readers, and hope they will continue to support our efforts toward a better journal.

May we again draw your attention to the contributions of our editorial staff, and especially to our Associate Editorial Board, for their work is so important to the success of the Journal. Good journals are the result of prolonged, careful, hard work. The Medical Society of the State of New York pays tribute to all responsible.

EDWARD SIEGEL, M.D.

Joint letter from the Commissioner of Health of the State of New York and the President of the Medical Society of the State of New York

In August of 1978, Governor Carey signed into law a bill mandating the development of a program by the New York State Department of Health to deal with the health problems associated with DES (diethylstilbestrol), particularly related to its use during pregnancy. This program was to be developed by the Bureau of Cancer Control and required the inclusion of activities involving screening, registering exposed individuals for the purpose of long-term follow-up, and both public and professional education.

Educational programs were developed and are ongoing to advise physicians, health professionals, and the nonmedical public concerning the seriousness and the long-range potential hazardous health effects of the use of DES during pregnancy on the women and their offspring.

As so frequently occurs in matters of this nature, the message of the dangers of the use of DES use during pregnancy has been incorrectly interpreted by many to include *all* DES uses.

There do exist FDA approved uses of DES including the following:

—estrogen replacement therapy in young (nonpregnant) women with decreased ovarian function and hypogonadism

—after surgical removal of both ovaries (surgical menopause)

—as therapy for severe and disabling natural menopause symptoms such as hot flashes, sweats, atrophic vaginitis, and so forth

—therapy of suitable patients with advanced cancer of breast and prostate

PRACTITIONERS ARE CAUTIONED THAT THEY SHOULD CONSULT PACKAGE INSERTS AND FDA PRESCRIBING INFORMATION FOUND IN THE MOST RECENT PDR BEFORE PRESCRIBING DES. THIS LETTER IS NOT INTENDED TO BE A SUBSTITUTE FOR SUCH INFORMATION AND DOES NOT CONSTITUTE AN ENDORSEMENT OF DES BY THE SIGNATORIES NOR BY THE MSSNY OR THE STATE OF NEW YORK DEPARTMENT OF HEALTH. It is intended to be only an advisory clarifying what has been perceived by some to be a confusing situation.

DAVID AXELROD, M.D., *Commissioner*
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Campylobacter Fetus Jejuni Enteritis

*In New York City**

ANNE C. MOSENTHAL, B.A.[a]
New York City
RICHARD L. MONES, M.D.[b]
New York City
VICTOR D. BOKKENHEUSER, M.D.[a]
New York City

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During a one-year period, we isolated Campylobacter fetus ss jejuni from fecal specimens of 16 of 260 (6.1 percent) New Yorkers with diarrhea and of 1 of 121 (0.8 percent) controls. The incidence was highest among children 2 to 14 years old and equaled that of enteric salmonellosis and shigellosis combined. The disease was characterized by fever and mild-to-moderate diarrhea, occasionally with bloody stools; vomiting and abdominal pain occurred in 30 to 40 percent of the cases. The patients recovered spontaneously or following erythromycin treatment.

CFJ (***Campylobacter fetus* ss *jejuni***) has recently been established as a common cause of diarrhea. Dekeyser et al.[1] first isolated the organism from stools of diarrhea patients, thereby implicating it as a cause of enteritis. Skirrow[2] confirmed these findings in England and developed a selective medium for routine isolation of CFJ from stool cultures. Since then, CFJ enteritis has been reported in Europe,[3–6] Africa,[7–9] Asia,[10] Australia,[11,12] and North America.[13–16]

The infection is particularly common in underdeveloped countries. For example, among patients with diarrhea, CFJ infection rate is 8.6 percent in Zaire,[8] 11 percent in Rwanda,[9] 12 percent in Bangladesh,[10] and 34 percent in South Africa.[7] In contrast, the incidence in Europe ranges from 5 to 7.1 percent,[2–5] and in the United States from 4.9 in Kansas[13] to 5.1 percent in Colorado.[14] In addition, outbreaks in Colorado,[17] Iowa,[18] and Vermont,[19] allegedly due to consumption of contaminated milk, chicken, or water, have been recorded.

The reported incidence in children with diarrhea varies from 3.6[14] to 34 percent.[7] However, the infection should not be ignored in adults, since the incidence has been reported to be as high as 7.2 percent.[10,14]

CFJ has also been recovered from apparently healthy individuals. In developed countries, asymptomatic infections usually occur at a rate of 1 percent or less[3–6]; surprisingly, in underdeveloped countries the prevalence often equals or exceeds the incidence of symptomatic infections.[7,10] It is not clear whether the asymptomatic infections are indicative of short-term subclinical disease or long-term infections as observed in carriers.

The literature contains no information on the role of CFJ as a causative agent of diarrhea in a large urban community. To fill this gap, we examined the clinical and epidemiologic picture of CFJ enteritis in New York City.

Materials and method

Patients and collection of specimens. During the period from July, 1979, to July, 1980, fecal specimens were obtained from St. Luke's–Roosevelt Hospital Center and the William F. Ryan Neighborhood Health Center, New York City. Feces from patients with and without diarrhea were examined for CFJ. Specimens were collected in bulk or by swab. Most specimens were cultured the day of collection; when this was not possible, they were stored at 4°C. for a maximum of 48 hours before processing.

Isolation of *Salmonella* and *Shigella*. All specimens were cultured on xylose lysine desoxycholate agar and gram-negative broth. Suspected colonies were identified by conventional biochemical and serologic techniques.

Isolation of *Campylobacter*. CFJ was isolated by two techniques:

1. *Filtration.* Approximately 1-Gm. bulk feces was suspended in 20-ml. BHIB (brain heart infusion broth).* Swabs were suspended in 10-ml. BHIB with the cotton left in the liquid. Suspensions were agitated vigorously on a Vortex mixer and then centrifuged for 10 minutes at 650 times gravity. The supernatant was passed through two 25-mm. filter chambers.† The nonsterile prefilter (upper chamber) containing an 8- and 1.2-microns filter membrane was placed on top of

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* Baltimore Biological Laboratories, Cockeysville, Maryland.
† Millipore, Bedford, Maine.

TABLE I. Incidence of CFJ (Campylobacter fetus ss jejuni) diarrhea in New York City

Age Group	Diarrhea			Control		
	Positive for CFJ	Number Specimens	Percent Positive	Positive for CFJ	Number Specimens	Percent Positive
0 to 1.9	6	97	6.1	1	28	3.5
2 to 13.9	7	65	10.8	0	39	0
>14	3	98	3.1	1*	54	1.9*
TOTALS	16	260	6.1	1	121	0.8

* *C. fetus* ss *intestinalis* (CFI) not counted in totals

the sterile chamber fitted with a 0.65-micron filter membrane. Two or three drops of the filtrate were spread on to chocolate agar plate and incubated for 48 hours at 37°C. in a microaerophilic atmosphere of 85 percent nitrogen, 10 percent carbon dioxide, and 5 percent oxygen.[20]

2. *Selective media.* Specimens were cultured on Skirrow's formula agar plates,[*] Butzler's formula agar plates,[†] and Blaser's formula agar plates[*] and incubated microaerophilically at 42°C.

For the first six months of the study, all specimens were cultured by the filtration method until selective media became available. Then swabs were cultured on selective media only; bulk specimens were examined both by filtration and on selective media.

Identification. Selected mucoid or swarming colonies with a clear, tan appearance on chocolate agar plates or a clear, pink appearance on selective media were transferred to Mueller-Hinton agar. They were identified as CFJ based on the following criteria: (1) typical darting motility, (2) gram-negative curved morphology, (3) microaerophilic but not aerobic growth at 37°C., (4) inability to ferment or oxidize glucose and (5) catalase and oxidase activity. CFJ was differentiated from CFI (*C. fetus* ss *intestinalis*) by its ability to grow at 42°C., its sensitivity to nalidixic acid, and its resistance to cephalothin.

Antibiograms. Antibiotic sensitivities were determined by the disk diffusion technique. Broth culture was spread on Mueller-Hinton agar and incubated microaerophilically at 37°C. CFJ was considered resistant to antibiotics with zones of diameter less than 14 mm. and sensitive to those with zones of diameter greater than 17 mm.

Results

Epidemiologic factor. During a one-year period 381 fecal specimens were cultured: 260 from patients with diarrhea and 121 from controls. A patient was considered to have diarrhea if he/she complained of frequent loose or watery stools. All others were placed in the control group.

Of patients with diarrhea, 16 (6.1 percent) yielded growth of CFJ and 16 (6.1 percent) of salmonellae or shigellae. One of these patients was simultaneously infected with CFJ and Salmonellae. One control patient (0.8 percent) yielded growth of CFJ and one (0.8 percent) of CFI. Pathogenic enterobacteriaceae were not recovered from the control patients.

As shown in Table 1, among diarrheal cases, CFJ was most common (10.8 percent) in children between the ages of 2 and 14. Among infants and adults, the corresponding rates were 6.1 and 3.1 percent.

For this one-year period, no seasonal distribution of cases was evident.

Clinical findings. Moderate diarrhea, with two to seven bowel movements daily, was the dominant clinical feature of CFJ infection in New York City. The stools were of loose or watery consistency and contained gross blood in 30 percent of the cases; 25 percent of the patients had abdominal pain and 43 percent vomited. Mild fever, ranging from 100 to 103°F. generally accompanied the gastroenteritis. One patient was moderately dehydrated, and three were hospitalized briefly. The diarrhea usually lasted from one to five days, although one patient had symptoms for two weeks, and two patients had intermittent diarrhea for two months.

Control patients, by definition, had no diarrhea. CFJ was isolated from one subject in this group, an 18-month-old infant admitted for febrile seizures. An adult with acute abdominal pain but without diarrhea yielded growth of CFI.

Treatment. Follow-up information was available from 15 of 16 patients with CFJ diarrhea; 12 patients (80 percent) recovered spontaneously without antibiotic therapy, and 2 were treated successfully with erythromycin. The patient with both CFJ and salmonella in the stool was treated with amoxicillin.

Carriers. Whenever possible, patients were followed to determine the duration of fecal CFJ excretion. Three patients carried the organism in the feces for three weeks after the initial isolation. One patient, who had had diarrhea intermittently for two months prior to isolation of CFJ, carried the organism for at least an additional five weeks, after which time he failed to return for follow-up cultures.

Antibiograms. All 16 CFJ strains isolated from these cases were sensitive to erythromycin, chloramphenicol, gentamicin sulfate, and nalidixic acid. Most isolates were sensitive to clindamycin phosphate and tetracycline, and resistant to penicillin, ampicillin, cephalothin sodium, trimethoprim/sulfamethoxazole, and cefamandole naphate (Mandol).

Comment

Epidemiologic factors. In New York City, CFJ was recovered significantly more often from patients

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¶[*] Scott Laboratories, Fiskeville, Rhode Island.

¶[†] Oxoid U.S.A., Columbia, Maryland.

with diarrhea (6.1 percent) than from controls (0.8 percent) ($X^2 = 5.488$; $p < 0.02$). A similar prevalence is found in other parts of North America[13-16] and Europe,[2-5] but the reported incidence is higher in some underdeveloped countries.[7,9] In agreement with other reports,[13-15] the incidence of CFJ enteritis is equal to that of salmonellosis and shigellosis combined.

The highest incidence of CFJ infection in New York City occurred in children 2 to 14 years old, with significantly less infection in adults ($X^2 = 4.038$; $p < 0.05$). This contrasts with studies elsewhere on this continent[13-16] and in Europe,[2-5] where children and adults had similar incidences. It cannot be determined if these differences are real or due to the reluctance of adult New Yorkers to seek medical assistance for moderate diarrhea. Regardless of the explanation, CFJ is still an important etiologic agent of diarrhea in adults.

As with other observers,[7,10] we find no differences between the prevalence of CFJ in infants with diarrhea and their asymptomatic controls; this does not exclude CFJ as a causative agent of diarrhea in infants. Rather, it is a reminder to follow these patients whose defense mechanisms may be inadequately developed to attain rapid bacteriologic cure.

Neither seasonal variations in incidence nor clustering of cases were observed in this study. A higher incidence during summer has been reported elsewhere.[3]

The source of infection of CFJ has rarely been documented, but reports have pointed to household pets[2,21] and contaminated milk and other foods.[17,18,22] In this study, circumstantial evidence implicated dogs in two cases. In addition, CFJ has been isolated at a high rate from chicken sold for human consumption in New York City.[20] It remains unclear to what extent this is a source of infection for New Yorkers.

Clinical picture. CFJ infections among New Yorkers ranged from subclinical cases to moderate bouts of gastroenteritis with fever, and, occasionally, abdominal pain and bloody diarrhea. We did not observe malignant cases with high fever, dehydration, or bacteremia.[7,15,16] Several factors could be involved. First, strains in New York City may be of moderate pathogenicity; tests for virulence factors are not yet available. Second, our patients may be exposed to smaller doses of CFJ than were patients in other surveys. Third, New Yorkers may have a comparatively high resistance to CFJ. Again, the appropriate tests have not been developed. The important point is that these factors may change with time and might lead to more severe and extensive outbreaks of CFJ gastroenteritis. The organism is obviously here.

Treatment. The milder cases responded well to symptomatic therapy. Erythromycin, the drug of choice, was used successfully in some cases. This drug may also be indicated for infants and patients with deficient immune responses. It eliminates the organism from the feces within 48 hours,[15,16] and should be administered for 10 days to prevent a bacteriologic relapse. Long-term carriers were not observed in our series, but there is mounting evidence that 3 to 4 percent of children with mild infections not receiving antibiotics continue to excrete the organisms for a year or more (unpublished observations of N. J. Richardson, H. Koornhof, and V. Bokkenheuser).

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Extrahepatic Bile Duct Cancer

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This review was undertaken after one of the authors (S.M.B.) noted an increased incidence of extrahepatic bile duct cancer at Montefiore Hospital and Medical Center. Although the etiology of this uncommon tumor is not known, one hypothesis is that extrahepatic bile duct cancer may be caused by a carcinogen in the bile, either ingested or inhaled, or a transformation product of an ingested or inhaled substance.

At Montefiore Hospital and Medical Center the number of cases of extrahepatic bile duct cancer reported was:

Before 1960	7
1960–65	10
1965–70	12
1970–75	20
Jan. 1, 1976, to Dec. 31, 1979	19

Possible explanations for this increase are: (1) increased diagnostic skills resulting in more diagnoses; (2) referral of cases to a large center; and (3) a true increase in incidence. It is unlikely that the second hypothesis is true because almost all patients were self referred to Montefiore Hospital and Medical Center or to its affiliated physicians.

Incidence

All authors agree that tumors of the biliary tract are comparatively rare, although there is a possibility of significant underreporting because of difficulties in both macroscopic and microscopic diagnosis. There is a 2:3 female-to-male ratio, with the age-adjusted incidence rate generally higher in whites. The age range is wide, with peak incidence in the sixth decade in several series.[1] Incidence is significantly higher in American Indians,[2,3] in the Mexican population in the southwestern part of the United States,[4] and in Japanese migrants to the United States.[5]

The incidence of cancer of the extrahepatic bile ducts may be expressed in several ways. In a review of 12 autopsy series published in 1957,[6] there was a variation in incidence from 0.012 percent to 0.458 percent, while carcinomas were found in 0.3 percent and 1.8 percent of all biliary tract operations performed in 2 series. As a percentage of all hospital admissions, cancer of the extrahepatic biliary tract accounted for 0.007 to 0.041 percent of the total figure.

The National Cancer Institute's Third National Cancer Survey[7] estimated 11,800 new cases of carcinoma of the liver and biliary passages in 1976, while the U.S. government vital statistics report for 1959[8] listed 4,276 deaths due to malignant lesions of the biliary passages. If 40 percent of the anticipated new cases of liver and bile passage malignant neoplasms during 1976 are bile duct carcinomas, approximately 4,500 new cases can be expected in this country in 1980.

The average annual crude incidence rate from 1969 through 1971 for biliary tract cancer in the United States is 1.2 per 100,000, while the average annual age-adjusted incidence rate (1970 standard) is 1.3 per 100,000.[7] It is difficult to ascertain a trend because, while the Third National Cancer Survey[7] classifies gallbladder cancer separately from other biliary tract neoplasms, which are primarily extrahepatic bile duct carcinomas, in previous cancer surveys data for gallbladder cancer and other biliary tract neoplasms were lumped together. Another handicap is the failure of the International Classification of Diseases to distinguish between cancers of the liver and the biliary system until the seventh revision in 1958.[7]

Many authorities believe that gallstones are etiologically related to bile duct cancer. Data published by Stewart, Lieber, and Morgan,[9] Neibling, Dockerty, and Waugh,[10] Sako, Seitzinger, and Garside,[6] and Ross, Braasch, and Warren[11] have shown that gallstones are associated with 20 to 57 percent of such cancers. Although, on the average, gallstones are found in about one third of patients with bile duct cancer, this fact is of unknown significance.

Biliary tract carcinoma is possibly 10 times more frequent in patients with ulcerative colitis than in the general population.[12] A series of 13 patients with bile duct cancer (excluding gallbladder cancer) and associated chronic ulcerative colitis seen at the Mayo Clinic from 1935 to 1973[13] and a review of the literature suggest that the relationship between chronic ulcerative colitis and bile duct cancer is not just a chance occurrence. The carcinoma has an onset approximately three decades earlier than cancer of the bile ducts without chronic ulcerative colitis, and neither surgical removal of the diseased colon, mode of medical management of the unresected colon, nor extent or severity of the colonic disease have any relationship to the subsequent development of cancer of the bile ducts.[13] However, no mechanism of causation is apparent, and "it would appear that biliary tract cancer is another member of the spectrum of hepatic disorders that may occur in patients with ulcerative colitis, but which progress independently of the colonic disease."[13]

There is a strong association of bile duct carcinoma with congenital biliary tract cysts (choledochal cysts). This may result from interaction between chronic inflammation and carcinogenic substances excreted in the bile. The presence of a cyst could lead to bile duct stasis with resultant prolonged exposure of the mucosa to bile.[14]

Studies of vinyl chloride workers have shown a much higher rate of liver and biliary tract cancer than that expected, but, unfortunately, the significance of these data could not be ascertained because extrahepatic biliary tract cancer was not classified separately.[15,16]

In 1970, an epidemiologic survey of rubber workers suggested an excess of cancer of the gallbladder and bile ducts.[17] There was also a shift in age distribution to younger groups, which would support association with employment. Occupational mortality statistics from California demonstrate that gallbladder and bile duct cancers are prominent among automotive and rubber plant workers, while bile duct cancers show increased incidence in workers in the aircraft, chemical, and wood finishing industries.[18]

Chemical factors

Laboratory animals have been used to demonstrate the excretion in the bile of experimental carcinogens or their metabolites, with associated concentration in the bile and gallbladder. A number of chemicals tested by animal bioassay have produced biliary tract changes, proliferation of bile ducts, bile duct hypertrophy, cholangiomas, cholangiocarcinomas, and carcinomas in the bile ducts.

A number of complex chemicals used in the rubber industry, including nitrosamine compounds, benzidine, Flectol H, and M-toluylene diamine were shown by investigators to be injurious to the hepatobiliary system. Rats fed Flectol H, a polymer of 1-2 dihydro-2,2,4-trimethyl quindine, developed biliary tract hyperplasia, atypical proliferation of the biliary ducts and of fibrous tissue, and cholangiofibrosis, considered a precursor to biliary duct carcinoma. Oral administration of M-toluylene diamine induced proliferation of the bile ducts, followed by carcinoma. Cyclohexylamine, a carcinogenic metabolic product of cyclamates, is also used in the rubber industry. Therefore, many investigators conclude that certain chemicals are an etiologic factor in the development of carcinoma of the bile ducts among rubber workers.[17]

An increased number of self-referred patients with extrahepatic bile duct cancer have been seen at Montefiore Hospital and Medical Center in the last ten years. Although improved diagnostic methods may partially explain this phenomenon, actual increased incidence is suggested. The literature is reviewed for known causative factors in extrahepatic bile duct cancer. Transhepatic cholangiography, routinely carried out in extrahepatic bile duct cancer patients, would be a good source of bile for study of carcinogenic and mutagenic activity.

Daily oral doses of the pesticide aramite led to the production of gallbladder and bile duct carcinoma in dogs in at least one experiment.[18] Two dogs who were fed 8-aminoazotoluene, one for 30 months and the second for 62 months, developed adenocarcinomas involving the entire biliary tract which resembled the diffuse involvement of the biliary tract by cancer in human beings.[19] Mice fed cholesterin, cholic acid, and the carcinogen 2-acetamidofluorene or its N-hydroxy derivative developed proliferation of mucosa in the extrahepatic bile duct, atypical cells in the mucosal epithelium of the bile duct, and, occasionally, adenocarcinoma of the common bile duct. Metabolites of the carcinogen and its derivative were found in the bile of these mice.[20]

Some investigators believe that the typical American diet of 45 percent fat results in the excretion of large quantities of bile acids which may act as cocarcinogens.[21] People who eat large quantities of smoked food or work in meat-smoking factories have a particularly high incidence of digestive cancers, possibly caused by polycyclic aromatic hydrocarbons and/or N-nitrosamines. Nitrites and secondary amines present in food and nitrates and nitrites added as preservatives react to form N-nitrosamines under mild conditions of temperature and pH. N-nitrosamines have been implicated in cancer causation in a wide variety of animals and in virtually every organ in the rat, and it is therefore postulated that man is also sensitive to these compounds.[22]

The carcinogenic action of aflatoxins, metabolites of some strains of *Aspergillus flavus,* has been studied in fish, birds, and mammals. Although the liver was the organ most affected in all species, marked intrahepatic bile duct proliferation, possibly representing a premalignant lesion, was noted in the rat, duckling, chicken, cattle, monkey, guinea pig, dog, and trout. Cholangiocarcinoma in the intrahepatic bile duct was seen in one rat, while bile duct hyperplasia occurred in the rabbit and in the cat. It is assumed that aflatoxin in the bile may be a factor in the production of bile duct proliferation and occasional areas of fibrosis. Although there is now no direct evidence that man is susceptible to aflatoxins, their demonstrated carcinogenicity in a broad spectrum of animals make them suspect as a hazard to man. Furthermore, there is a high incidence of hepatocellular carcinoma but not extrahepatic bile duct cancer in many areas where climatic conditions favor the growth of such molds.[23]

Liver-fluke infections of the orient, *Clonorchis sinensis* and *Opisthorchis felineus* in the most populous countries of Asia, and *Opisthorchis viverrini* in parts of Thailand and Malaysia, are highly associated with bile duct carcinoma. The simplest explanation is that these flukes are responsible for an inflammatory reaction in the bile ducts, potentiating the action of carcinogenic agents excreted in the bile.

Cancer did not develop in any Syrian golden hamsters given the carcinogen dimethylnitrosamine in their drinking water in an experiment, but cholangiocarcinomas and cholangiofibrosis appeared in all when intragastric metacercariae of *O. viverrini* were administered first. The diet of northeastern Thais is rich in a fermented fish product containing substances transformable to nitrosamines.[14]

The etiology of extrahepatic biliary tract cancer is unknown, but there is certainly evidence from the literature to suggest that environmental factors cause biliary tract cancer, and that further epidemiologic investigation is warranted. Case-control studies are unlikely to provide clues as to the cause of bile duct cancer. Study of carcinogenic and mutagenic activity in bile of cancer patients compared to controls without malignant illness might be more productive. At present the best way to diagnose bile duct cancer is to perform a transhepatic cholangiogram. This technique allows the physician to collect bile for study without added risk to the patient. Bile could also safely be collected from patients who have abdominal surgery for benign conditions. Comparative studies could then be carried out for carcinogenic and mutagenic activity.

Specific carcinogens could be isolated, and bile could be studied for distribution patterns of bile acids and their conjugates.

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Percutaneous Endoscopic Extraction of Retained Stones

Endoscopic extraction from common bile duct and gallbladder

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Although retained common-duct stones occur infrequently after exploration of the common bile duct, this clinical condition, which formerly required repeat surgical procedures, has more recently been successfully treated with nonsurgical methods. The placement of a T-tube at surgery provides a percutaneous route through which catheters and collapsible baskets can be passed when the sinus tract has matured. This technique, however, requires the use of fluoroscopy with continuous monitoring to accomplish the identification, entrapment, and extraction of a stone. Although the technique is safe, it exposes the patient and health personnel to irradiation. We have successfully employed a flexible bronchoscope, Olympus BF-4B2, modified with a suction-irrigation valve from the flexible choledochoscope, CHF-B3, in 13 patients without complication. This direct endoscopic technique enables the endoscopist to examine the biliary ducts as well as to entrap and extract stones more expeditiously and with less radiation than with the catheter technique. Since the endoscopic technique is safely performed and offers expanded capabilities we recommend PEERS (percutaneous endoscopic extraction of retained stones) for general use.

The development of a mature sinus tract created at surgery after placement of either a T-tube in the common bile duct or a cholecystostomy tube in the gallbladder facilitates the passage of catheters and other accessories for extraction of retained stones.[1-3] This significant achievement eliminates the need for repeat surgery while maintaining low morbidity and mortality rates.[1-3] At present, PEERS (percutaneous endoscopic extraction of retained stones) is performed under fluoroscopic control throughout the duration of the procedure, which presents an unavoidable health hazard. Caution is critical as PEERS concerns the risk of irradiation to not only the patient but members of the medical team.

In order to address the latter problem while endeavoring to improve on an established procedure, we have modified the percutaneous extraction technique by utilizing a fiberoptic bronchoscope. This modified endoscopic technique, PEERS, provides direct visualization of stones and eliminates the need for continuous fluoroscopy. The results of PEERS are comparable to those achieved by the catheter technique; however, PEERS provides the additional endoscopic examination justifying its routine use.

Methods and patients

A flexible fiberoptic bronchoscope, Olympus BF-4B2, modified with an irrigation-suction valve used with the flexible choledochoscope, CHF-B3, is used in this extraction technique. The instrument measures 595 mm. in length while the diameter of its distal end is only 4.8 mm., making it comparable in size to 14 F. (in French sizes, 3F equals 1 mm.). The accessory or biopsy channel is 2 mm. in diameter, accommodating a collapsible basket or foreign body extractor used to retrieve stones. The bronchoscope is used instead of the flexible choledochoscope both because it is smaller in diameter, and because it has a more flexible distal bending section, providing greater deflection and angulation (Fig. 1), which fa-

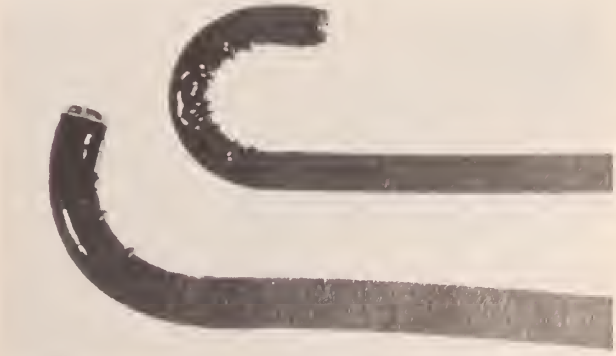

FIGURE 1. Distal bending sections of flexible bronchoscope (Olympus BF-4B2), upper, and choledochoscope (Olympus CHF-B3), lower, demonstrating maximum bending angles. Note differences in diameter of endoscope.

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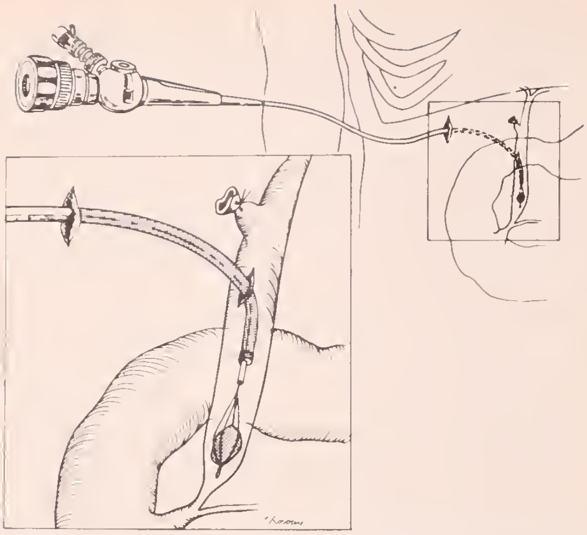
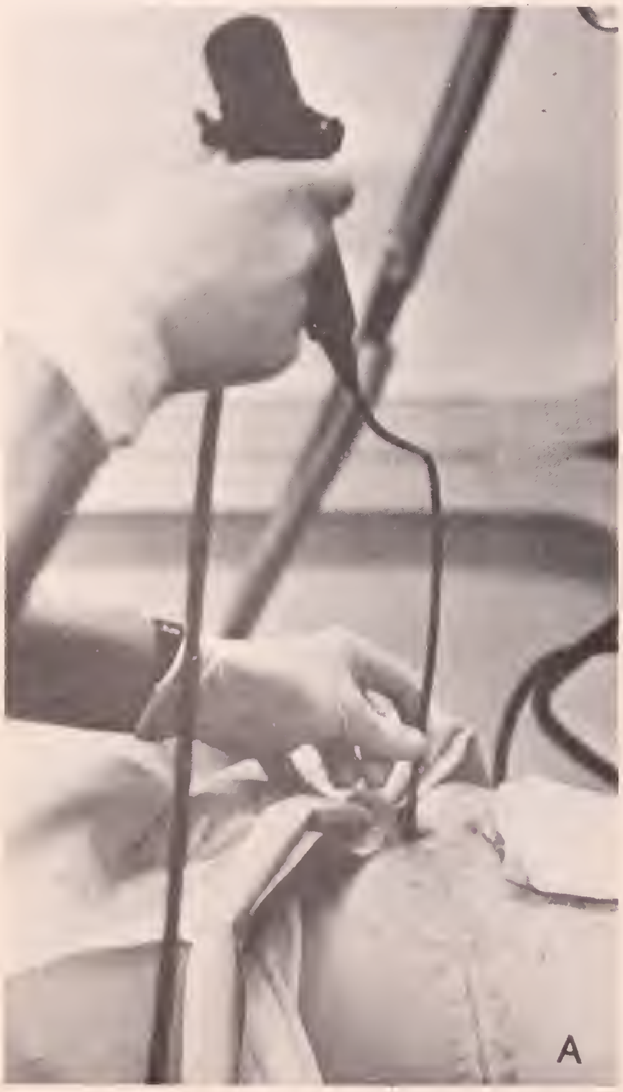


FIGURE 2. Artist's schematic rendition demonstrating percutaneous approach to common bile duct. Inset demonstrates basket entrapment of stone.

cilitates selective entry into the bile duct percutaneously (Fig. 2).

The patient is placed on an x-ray table equipped with fluoroscope in a supine position. A cholangiogram is performed through the T-tube or cholecystostomy tube to confirm the presence of one or more stones. The T-tube is then withdrawn from the bile duct, or the catheter removed from the gallbladder. The skin is cleansed with an antiseptic solution, sterile drapes are applied, and sedatives (diazepam) and/or analgesics (meperidine) are administered intravenously. The bronchoscope, which has been gas sterilized and aerated, is introduced into the



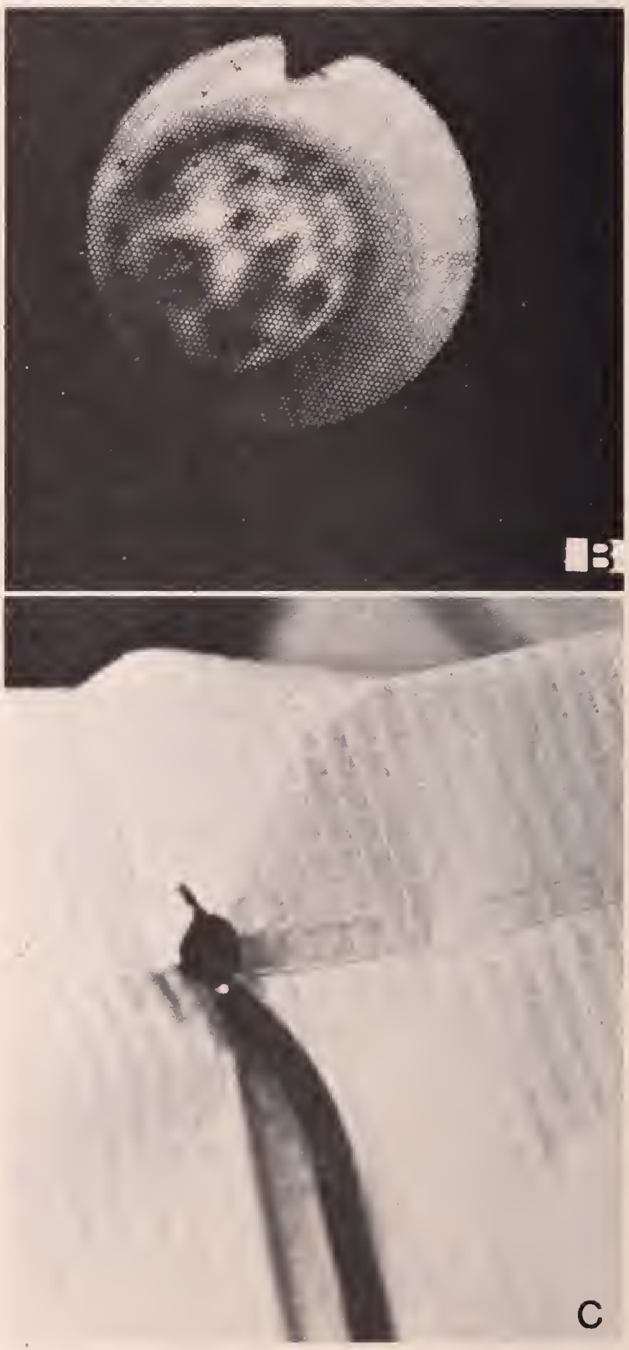


FIGURE 3. (A) Introduction of bronchoscope into stoma of T-tube sinus tract after removal of tube. (B) Endoscopic picture of common bile duct with stone impacted in distal end. (C) Stone, basket, and bronchoscope after removal from duct.

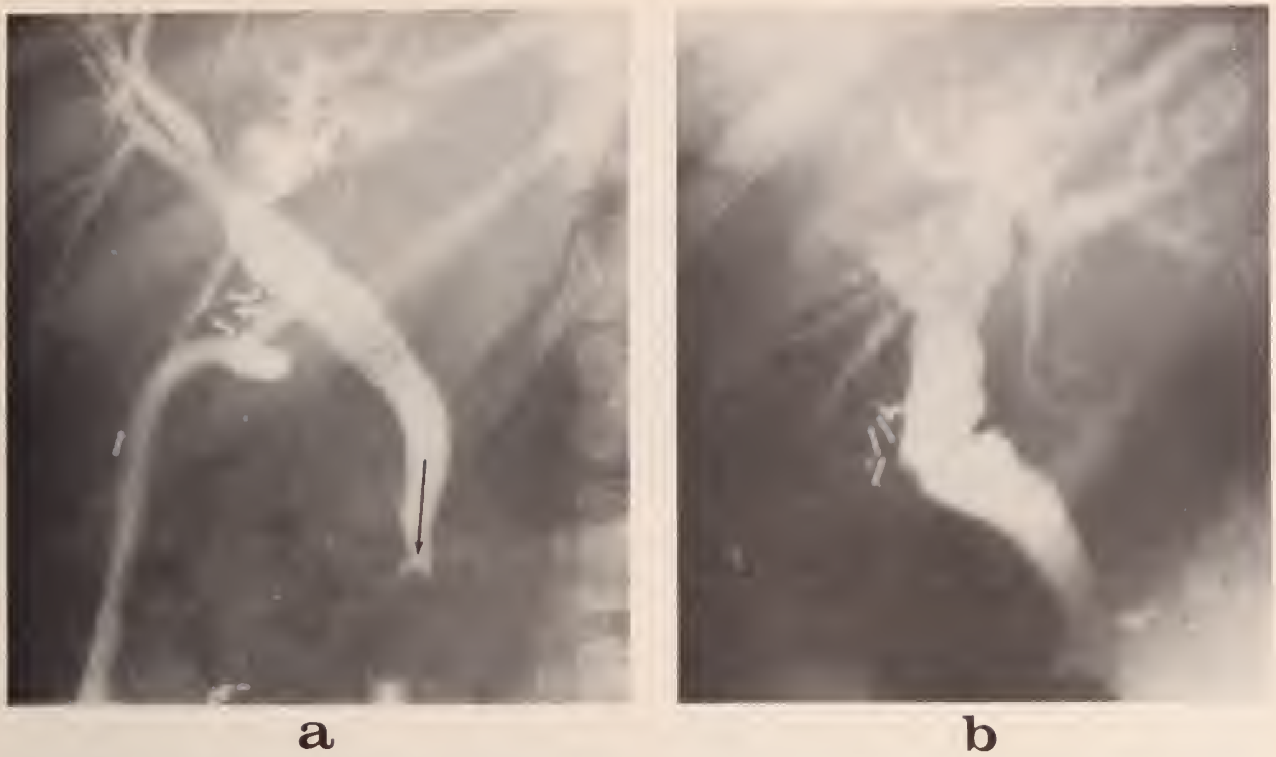


FIGURE 4. (A) T-tube cholangiogram demonstrating impacted retained stone in distal end of common bile duct (arrow). (B) ERCP cholangiogram indicating absence of stone in duct.

stoma of the sinus tract (Fig. 3A). Under direct vision, the sinus tract is negotiated, and the endoscope is advanced into the bile duct. Fluoroscopy is used only to confirm the direction of insertion of the endoscope. The biliary tree can be examined under direct vision for evidence of disease or stones; and after identification of a stone (Fig. 3B), a basket is introduced through the biopsy channel to capture and remove it (Fig. 3C).

A similar technique is used to identify stones in the gallbladder. The instrument is introduced through the cholecystostomy stoma, the gallbladder examined, the stone identified, entrapped, and extracted.

The PEERS technique has been used in 13 patients, 7 females and 6 males, ages ranging from 26 to 85 years, with successful extraction in all without complication.

Case reports

Case 1. A 26-year-old obese female was admitted initially with acute cholecystitis. A laparotomy was performed confirming the diagnosis, and a cholecystectomy was accomplished. Gallstones were found in the gallbladder as well as in the common bile duct. A T-tube was left in place, and postoperative cholangiogram revealed a large stone in the ampulla (Fig. 4A). The patient was discharged 12 days after surgery and readmitted 5 weeks later. On second admission the stone was still present in the ampulla, and percutaneous endoscopic extraction was performed. After the stone was visualized and captured in the basket, both endoscope and basket were withdrawn. The stone was removed from the common bile duct but became dislodged from the basket in a narrow portion of the sinus tract. Impaction of the stone in the sinus tract prevented percutaneous access to the bile duct for a repeat cholangiogram. An ERCP (endoscopic retrograde cholangiopancreatogram) the following day confirmed the absence of the stone with good drainage into the duodenum (Fig. 4B). The impacted stone merged through the skin six weeks after extraction.

Case 2. A 47-year-old hypertensive male was admitted to the hospital because of right upper quadrant pain, fever, and chills. He also complained of substernal discomfort. Physical examination confirmed right upper quadrant tenderness while an electrocardiogram demonstrated an acute inferior wall myocardial infarction. Surgery was performed only after his clinical condition became worse; was limited to a cholecystotomy and evacuation of the gallbladder, with placement of a cholecystostomy drain. A cholecystogram via the tube performed 10 days later demonstrated a stone near the neck of the gallbladder. Four weeks later a successful PEERS was accomplished (Fig. 5).

Comment

Since the introduction of the catheter technique of percutaneous extraction of common bile duct stones, many medical centers have begun to employ this effective and safe procedure. A high rate of success has been achieved using the steerable catheter* and available accessories, with low rates of morbidity and rare mortality.[1-3]

Because the standard catheter technique requires cholangiography, continuous fluoroscopy is needed. Therefore, those who participate in the procedure are unavoidably exposed to ionizing radiation. Although members of the team are gowned with protective lead

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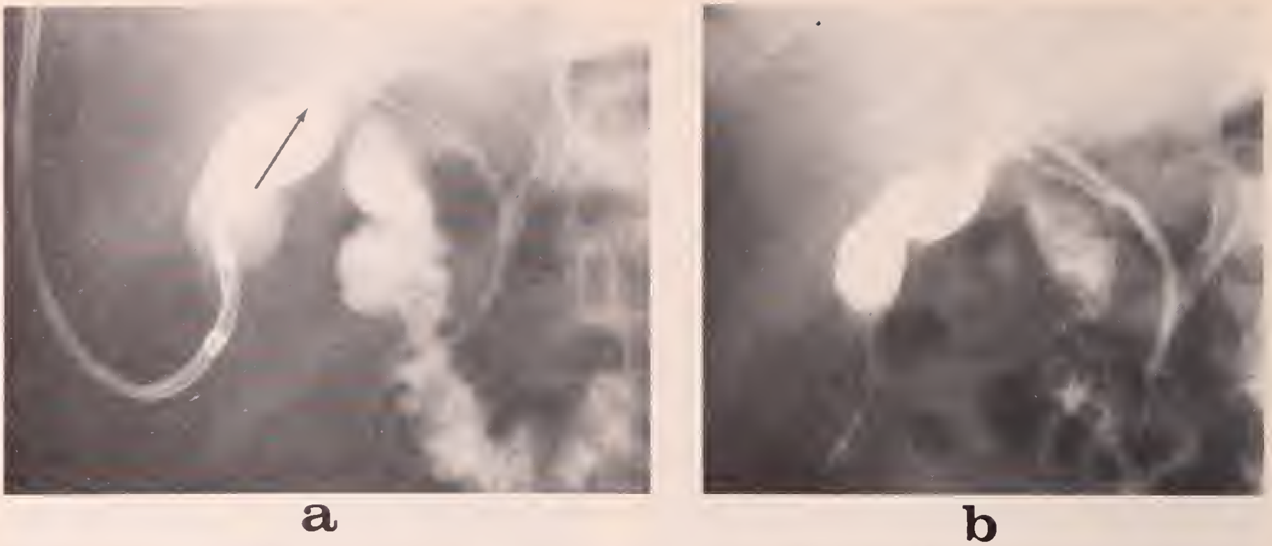

FIGURE 5. Cholecystogram-cholangiogram taken through bronchoscope placed in tube sinus tract. (A) Endoscope is on left. Stone is seen in neck of gallbladder (arrow). (B) After removal of stone from gallbladder.

aprons, those engaged in the extraction technique must by necessity keep their unprotected hands beneath or near the x-ray tube. Because PEERS is performed under direct vision, the use of fluoroscopy is minimized during the endoscopic technique.

Although it is difficult to improve on an established and successful technique, it is our opinion that the more direct endoscopic approach[4–7] improves on the catheter technique, facilitating the extraction of common bile duct stones. PEERS provides for careful examination of the biliary tree, enabling one to distinguish between small or multiple stones and air bubbles. At the same time, it provides the potential capability of a direct biopsy to diagnose neoplastic filling defects, such as papillomata. These benefits are provided while reducing the hazards of radiation inherent in the catheter technique.

As mentioned earlier, the bronchoscope can negotiate most sinus tracts; however, a small tract may require dilatation in order to accommodate larger stones. Dilatation is accomplished using rubber catheters and performed either acutely (all at once) or over several days. The acute technique is more uncomfortable to the patient while progressive dilatation for several days is well tolerated but prolongs the procedure. Either option provides a sufficiently larger sinus tract and avoids entrapment of larger stones in the tract (Case 1). To avoid the problem of a narrow sinus tract which may not accommodate larger stones, placement of a larger-caliber T-tube at surgery facilitates passage of instruments percutaneously, and eliminates the need for subsequent dilatation of the tract.[7,8]

PEERS is a safe method for extraction of retained common duct or gallbladder stones through sinus tracts established by placement of T-tubes at surgery. It offers advantages over the more commonly used system employing the steerable catheter. The latter system requires continuous fluoroscopic monitoring to identify and extract stones and may be inadequate to distinguish the type and/or size of filling defects seen on cholangiogram. The endoscopic technique eliminates both uncertainty and the need for fluoroscopic control, accomplishing extraction safely and more expeditiously while adding the capability of direct biliary tree examination and identification of small stones. Modification of the latest generation bronchoscope, BF-4B2, with an irrigation-suction valve has permitted us to use a smaller, more flexible instrument, usually available in most hospitals, to improve on an already acceptable and proved technique.

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Cervical Cancer Screening

Need among hospital inpatients

Female inpatients (3,626) on the medical, surgical, and rehabilitation services in a public hospital and a university hospital (referral and private patients) were screened for cervical cancer. Abnormal cytology warranting biopsy was found in 10 to 14 women per 1,000 women screened. At the public hospital, 49 percent of women were eligible for screening, compared to 25 percent at the university hospital. However, more older than younger women were eligible at both hospitals. Further screening efforts should concentrate on low-income communities, and especially public institutions.

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The ACS (American Cancer Society) has recently promulgated new standards for the frequency of screening for cervical cancer.[1] Instead of annual Pap (Papanicolaou) smears, as previously recommended, they now suggest two consecutive annual negative smears followed by repeat smears every three years. While most women in the United States have had at least one Pap smear, and while the incidence and mortality rates from invasive cervical cancer have been decreasing, there are still many women who have not been screened with the frequency suggested by the ACS. Surveys have shown that low-income and minority women are less likely to have had a recent smear than more affluent white women.[2] In inner-city communities, such as Buffalo, New York, older women are poorly screened.[3] Epidemiologic studies have shown that cancer of the cervix is most common in these same low-income communities.[4] Most new cases of invasive cancer of the cervix are likely to develop in these communities, and further efforts at controlling this disease must concentrate on raising the screening levels at least to those recommended by the ACS.

Unfortunately, many low-income women do not seek preventive checkups, even though they are as likely to receive acute medical care as the more affluent. In a study at Kings County Hospital and State University Hospital in Brooklyn, we reported that one-quarter of the patients who developed invasive cancer of the cervix had been hospitalized in the previous 10 years, while 80 percent had received ambulatory medical care.[5] The implication was that many women could have had their disease diagnosed earlier if Pap smears had been taken during the earlier hospital or ambulatory care.

Under New York State law (Health Codes Section 405.22),[6] hospitals are required to offer a Pap smear to all female inpatients aged 21 years or over who have not been screened within three years. The results of inhospital screening programs in two hospitals in this low-income area are reported here.

Methods

In 1977, screening programs were set up in two adjacent Brooklyn hospitals. One, Kings County Hospital, is a large public community hospital, while the other, State University Hospital, is a specialized referral hospital and also provides acute care to private and some service patients. At both hospitals, patients on the medical, surgical, and rehabilitation services were evaluated by nurses to determine their needs for screening and health education. Patients with medical or psychiatric contraindications were excluded, as were patients who had had a recent smear. Other patients were given a Pap smear and breast examination, and were taught breast self-examination. Results of the program in 1978 are described. Data on age and race were obtained from a 10 percent random sample (N = 531) of the patients who were evaluated for a Pap smear at the public hospital and from all patients (N = 549) who were evaluated for a Pap smear at the university hospital. Smears suggesting moderate dysplasia or worse were recommended for biopsy.

Results

In 1978, at the public hospital, 5,035 patient admissions were evaluated, and 3,428 women (68 per-

TABLE I. Results of screening

Procedure and Diagnosis	Public Hospital		University Hospital	
	Number	Rate*	Number	Rate*
Patients evaluated	5,035	. . .	549	. . .
Pap smears taken	3,428	1,000.0	198	1,000.0
Negative smears	3,099	904.0	184	929.0
Smears to be repeated	282	82.3	12	60.6
Abnormal smears for biopsy	47	13.7	2	10.1
Histologic diagnoses	32	9.3	2	10.1
Invasive cervical cancer	3	0.9	. . .	. . .
Preinvasive cervical cancer	10	2.9	1	5.0
Cervical dysplasia	12	3.5	1	5.0
Other gynecologic cancer	3	0.9	. . .	. . .
TOTAL CANCER	16	4.7	1	5.0

* Rate: number per 1,000 women screened.

TABLE II. Previous Pap smears by hospital

Hospital	Time Since Previous Smear			Total	No smear in 3 years (percent)
	<3 years	>3 years	No previous smear (percent)		
Public					
<50 years	22	6	2 (7)	30	27*
≥50 years	12	5	20 (54)	37	68*†
TOTAL	34	11	22 (33)	67	49
University					
<50 years	144	13	9 (5)	166	13*
≥50 years	140	36	39 (18)	215	35*†
TOTAL	284	49	48 (13)	381	25

* Difference between age groups—statistically significant—p <0.01 in X^2 test.
† Difference between hospitals—statistically significant—p <0.01 in X^2 test.

cent) were given Pap smears. At the university hospital, 549 patient admissions were evaluated, and 198 women (36 percent) were given Pap smears. Two percent of public hospital patients and 11 percent of university hospital patients refused smears. There were medical or psychiatric contraindications in 7 percent of public hospital patients and in 17 percent of university hospital patients.

Of the patients evaluated, 50 percent of those at the public hospital and 62 percent of those at the university hospital were aged 50 years or over, while 86 percent at the public and 41 percent at the university hospital were black or Hispanic.

The results of screening are shown in Table I. Negative smears were obtained in over 90 percent of patients at both hospitals; repeat smears were recommended in about 7 percent and biopsies in about 1 percent of patients. Histologic diagnoses were obtained in 69 percent of public hospital patients with abnormal smears and in both university hospital patients. The overall yield of malignant and premalignant lesions was 8.1 per 1,000 at the public hospital and 10 per 1,000 at the university hospital. There was no significant difference between the two hospitals in the yields of abnormal smears or histologically diagnosed cases.

Previous Pap smears. In one six-week period, a 25 percent random sample of public hospital patients was interviewed to determine the previous history of Pap smears (N = 67). Pap smear histories were obtained in 78 percent of university hospital patients with readmissions excluded. The Pap smear histories are shown in Table II. The three-year interval corresponds to eligibility for screening under New York State law. At both hospitals, significantly more younger women had recent Pap smears (p <0.01).

Women aged 50 years or over. At the public hospital, 68 percent of older women had no Pap smear within three years, and 54 percent had no previous Pap smear. At the university hospital, 35 percent of older women had no Pap smear within three years, and 18 percent had no previous smear. This difference between older women at the two hospitals is statistically significant (p <0.01 in X^2 test).

Women under 50 years. At the public hospital, 27 percent of younger women had no smear within three years and 7 percent had no previous smear. At the university hospital, 13 percent had no smear in three years and 5 percent had no previous smear. The difference between the two hospitals among younger women was not statistically significant.

Knowledge of Pap smears. At the public hospital, 72 percent of interviewed women aged 50 years or more had little or no knowledge of Pap smears compared to 17 percent of younger women.

Comment

In a previous study we found that virtually all women who developed invasive cervical cancer had inadequate prior screening using ACS standards.[5] This indicates that further efforts to control invasive cervical cancer should focus on extending screening to high-risk, inadequately screened populations. This report shows that in-hospital screening can reach a part of this unscreened population. Three specific findings are of significance.

First, in this program there was a high yield of abnormal smears, particularly at the public hospital: 13.7 abnormal smears per 1,000 women screened. Yields greater than 10 per 1,000 are not uncommon in initial mass screening programs in unscreened populations but are rare in screened populations. Community-wide screening programs in Canada, Scandinavia, and Japan report yields of 4 to 8 abnormal smears per 1,000 women screened.[7,8] In affluent suburban areas in the United States, the rates may be as low as 2 per 1,000.[9] The rates reported here are comparable to those reported from public institutions in low-income areas.[10,11] The high yield in this report reflects both the high incidence of cervical cancer and the relatively low screening levels in this community, as well as the fact that women with recent negative smears were excluded.

Second, at both hospitals, older women were in greater need of screening than younger women. Most younger women receive Pap smears when they visit physicians for fertility-related care or acute gynecologic care. Older women who do not need such care receive Pap smears as part of routine check-ups, and low-income people obtain such preventive care less often than the more affluent.

Third, the proportion of women eligible for screening under New York State law at the public hospital was significantly greater than at the university hospital. This difference was significant only among older women. This difference between the hospitals probably reflects the facts that (1) private patients at the university hospital are more likely to have received preventive care; and (2) the university hospital, as a referral center, includes many patients who were screened at previous hospital admissions.

Conclusion

This report indicates that further efforts to control cervical cancer should focus on institutions that provide primary care in areas where women are likely to be at high risk and have inadequate screening. The screening of hospital inpatients is a cost-effective program. Women are already in the health facility and willing to accept recommended tests, so that funds are not needed for ancillary publicity. The patients can be readily evaluated as to their need for screening, and duplication of Pap smears in recently screened women can be avoided.

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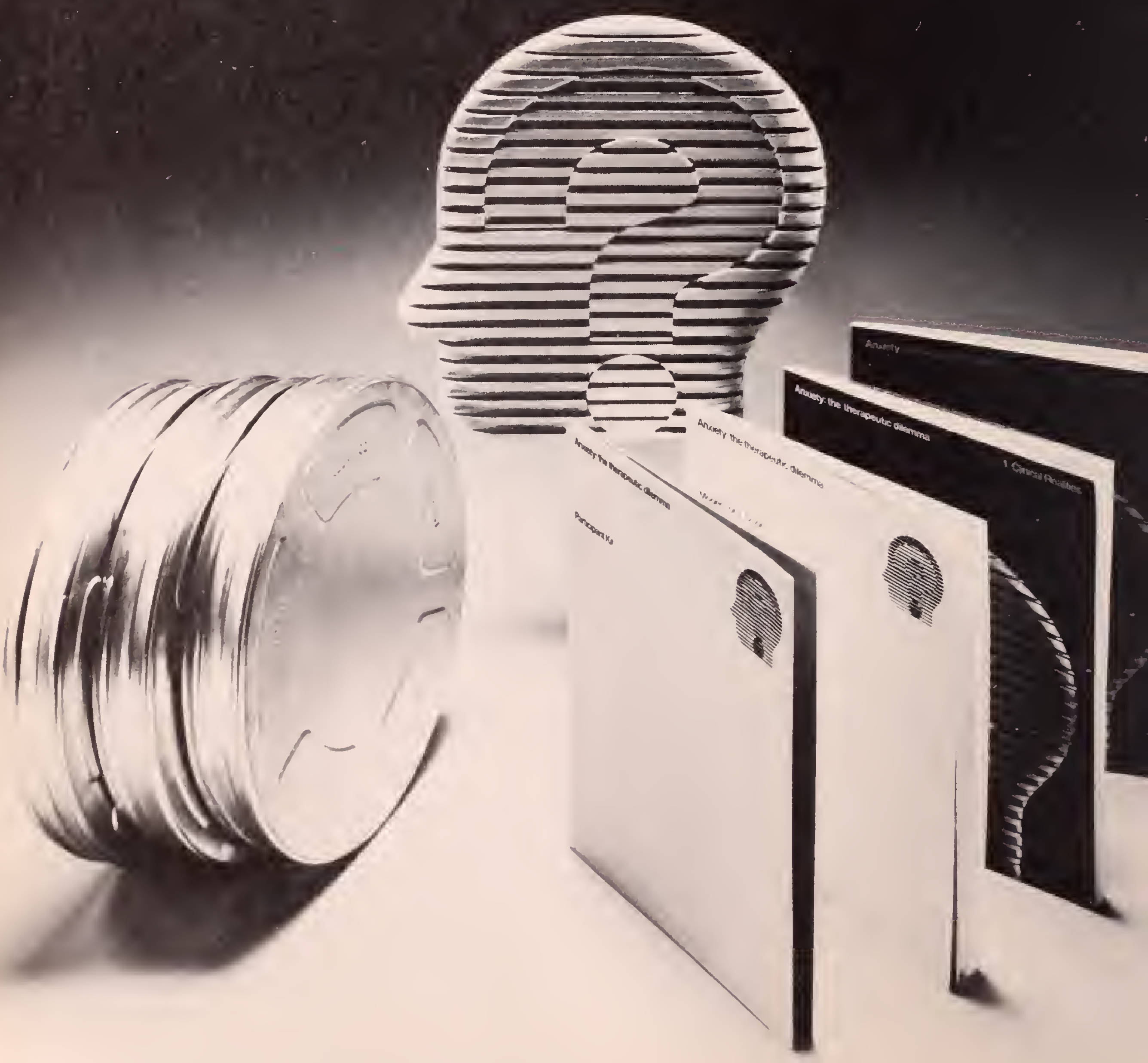
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Metastatic Carcinoma*

Insensitivity of buffy coat preparations

The usefulness of buffy coat smears was studied in 92 cases of metastatic carcinoma. Eighty-one patients, Group I, had no clinical evidence of bone marrow metastases while 11 patients, Group II, had documented marrow involvement due to tumor. In neither group did buffy coat examination provide information not available from the routine peripheral blood smear. In contrast with previous studies, circulating cancer cells were not identified in any of these patients.

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Examination of the peripheral blood from patients with cancer has been recognized as being clinically useful for many years. The identification of circulating cancer cells has been described in routine peripheral blood smears,[1,2] filtrates of P.B. (peripheral blood),[3,4] and leukocyte concentrates prepared by various techniques.[5–8] In addition, the finding of immature myeloid and erythroid cells in the peripheral blood, leukoerythroblastic reaction, has been shown to be a fairly reliable indication of metastatic bone marrow involvement.[9–12]

Considering the reported value of B.C. (buffy coat) preparations in detecting various types of malignant cells, it seemed reasonable to evaluate this technique for the early detection of LER (leukoerythroblastic reaction) in high-risk patients. In this way, bone marrow metastases might be diagnosed earlier and appropriate therapeutic measures taken. In addition, we were interested in confirming the relatively high incidence of circulating cancer cells found by previous authors.[3–8,13,14]

Methods and materials

I. Patient selection. Patients seen in the medical oncology unit of Highland Hospital during 1978 and 1979 were considered for entry into the study. General criteria for selection included (1) documented solid malignant tumors with metastatic spread beyond regional lymph nodes, and (2) availability for regular, at least monthly, follow-up and blood sampling. Patients were selected regardless of age, prior or current treatment, or performance status. Most, however, were ambulatory outpatients at the time of entry to the study.

Patients were divided into two groups, as follows: Group I, 81 patients, were those with no clinical evidence of bone marrow metastases. Group II, 11 patients, were those with histologically proved bone marrow metastases at the time of entry into the study.

II. Methods of study. (A). In Group I, the peripheral blood and buffy coat smears were prepared at the time of entry into the study, and then at one to two-month intervals. The number of examinations varied widely between patients, depending on their clinical course and length of survival.

(B). In Group II, the peripheral blood and buffy coat smears were examined simultaneously at the time of bone marrow biopsy. Follow-up smears were not made in this group of patients.

III. Preparation of smears. All smears were prepared from EDTA, (ethylenediaminetetracetic acid) anticoagulated blood. Routine peripheral blood smears were made in duplicate, allowed to dry in air, and stained with Wright's stain. To prepare buffy coats, approximately 1 cc. of anticoagulated blood was transferred by pipette to a disposable Wintrobe 115 mm. by a 3 mm. tube and centrifuged for 10 minutes at 1,500 r.p.m. in a model HN-S centrifuge. Approximately three fourths of the plasma layer was discarded. The remaining plasma and buffy coat layer were removed with a Pasteur pipette, mixed together, and smeared onto glass slides. The slides were then dried in air, stained, and placed under a coverslip.

IV. Examination of smears. Both peripheral blood and buffy coat smears were first scanned under low power, (10x), for abnormal cells or cell clusters; careful attention was given to the feathered edge and periphery of the smear. Under the 100 magnification oil immersion lens 200 white blood cells were counted, requiring examination of 20 to 50 high-powered fields per slide. Megathrombocytes, at least one-half the red cell diameter and NRBC (nucleated red blood cells) were recorded as number per 200 white blood cells counted. The criteria for a normal B.C. were those of Efrati and Rezenszajn[13]. On any smear NRBCs examined were recorded as abnormal, even if a full LER was not present. Myeloid immaturity was defined as the presence of myelocytes or younger cells in the P.B., and promyelocytes or younger cells

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TABLE I. Group 1: Site of primary cancer

Site	Number of Patients (percent)
Breast	40 (49.4)
Lung	12 (14.8)
Ovary	9 (11.1)
Colon/rectum	6 (7.4)
Stomach	4 (4.9)
Prostate	3 (3.7)
Bladder	1 (1.2)
Kidney	1 (1.2)
Cervix	1 (1.2)
Pancreas	1 (1.2)
Unknown	3 (3.7)
TOTAL	81 (100)

TABLE II. Group I: Sites of metastases in 81 patients

Site	Number of Patients (percent)
Bone	41 (50.6)
Liver	24 (29.6)
Lung	24 (29.6)
Intra-abdominal	21 (25.9)
Lymph nodes	14 (17.3)
Skin	9 (11.1)
CNS	8 (9.9)

TABLE III. Group I: Peripheral blood and buffy coat smears in metastatic cancer

	Number of Patients
P.B. and B.C. normal*	70
P.B. and B.C. abnormal	5
P.B. normal, B.C. abnormal	2
P.B. abnormal, B.C. normal	4
	81

* Normal peripheral blood (P.B.) may include occasional metamyelocytes. Normal buffy coat (B.C.) includes metamyelocytes and myelocytes.

in the B.C.

Results

A total of 81 patients in Group I were examined and followed. The age range was 28 to 83 with 80 percent of patients above the age of 50. The male/female ratio was 1:3. A mean number of 3.5 buffy coat smears were made from each patient, but a few patients had only a single smear. As of this writing, 46.9 percent of the patients entered in the study have died.

The sites of primary tumors and metastatic lesions are shown on Tables I and II respectively. These data reflect the advanced extent of metastatic disease in most patients, and the presence of known bone metastases in half of them.

As shown on Table III, the vast majority, 86 percent, of patients had no evidence of leukoerythroblastosis on either routine P.B. or B.C. smears, made from simultaneous samples on several occasions. Both P.B. and B.C. were abnormal in five patients. The B.C. revealed abnormalities not seen in the P.B. in two patients, both had a single NRBC. Four patients had a P.B. that was abnormal, but the B.C. normal. In three of these patients, myelocytes were present in both preparations, but counted as abnormal only in the P.B. With the fourth case, a single NRBC was seen in the P.B. but not in the B.C. In no case were circulating cancer cells seen in either the P.B. or B.C., even with careful search under low power for abnormal large cells.

Group II consisted of 11 patients known to have metastatic carcinoma involvement of the bone marrow, documented by bone marrow biopsy. Four patients had unequivocal leukoerythroblastosis in the peripheral blood and buffy coat smears. Six patients had no LER in either preparation, and one patient had only a rare myelocyte in the P.B. but no LER in the B.C.

Comment

The purpose of this study was to determine whether or not buffy coat smears were useful in detecting leukoerythroblastic changes not seen in the peripheral blood. In our group of patients with metastatic cancer, the data described previously indicate that buffy coat smears are not helpful in this regard. Of the total 92 patients, 9 had definite leukoerythroblastic features, 5 in Group I and 4 in Group II, which were present in both P.B. and B.C. Two patients in Group I had a rare NRBC in the B.C. not evident in the P.B. Thus, with the exception of these two patients, the B.C. did not prove to be a more sensitive test than the P.B. The relatively low yield in detecting LER by B.C. could be explained in several ways.

1. Technical deficiencies. The method of preparation of B.C. smears is well standardized and was performed by experienced technologists. In addition, examination of all smears was made by the same two technologists (V.A. and J.W.) and checked in questionable cases by a hematologist (J.R. or J.E.W.). Thus, technical deficiencies in this study are unlikely.
2. The B.C. is no more sensitive than the P.B. in detecting circulating immature hematopoietic cells. We feel that this hypothesis is unlikely, in view of the reported efficacy of leukocyte concentrates in detecting myeloma cells,[14] Reed-Sternberg cells[15] and leukemic blasts. Certainly, normal buffy coat smears frequently contain myelocytes and megakaryocytic nuclei not seen on routine blood smears.[13]
3. Bone marrow metastases were not present in any of our patients. This is certainly a possibility, although not a likely one. The majority of our patients had either breast or lung cancer, and both of these tumors have a predilection for bone involvement. In fact, 50 percent of our patients in Group I had known bone metastases. Although bone metastases do not necessarily indicate marrow replacement, marrow involvement because of the tumor is frequently found at autopsy.[16]
4. Leukoerythroblastosis is uncommon except with

massive involvement of the bone marrow. In our view, this is the most likely explanation for the low yield of LER in our study. It has been our experience and reported by others[17] that extensive tumor and/or fibrosis is almost always found in patients with LER. The control over release of normal blood elements from the marrow depends on several mechanisms. These include a dynamic but intact marrow architecture,[18] individual cell deformability,[19,20] and possible humoral factors.[20] This regulatory system appears to remain functional unless widespread disruption of marrow architecture occurs. Small, scattered foci of bone marrow metastases might, therefore, not be detectable by the technique used in this study. Additional studies are now underway to correlate LER with the degree of marrow involvement by tumor and fibrosis.

A thorough study of all smears revealed no malignant cells in either the P.B. or B.C. of these 92 patients with disseminated carcinoma. These results confirm those of Romsdahl, McGrath, and McGraw,[21] who found no increase of immature cells in the blood of cancer patients when compared with noncancer patients. Nevertheless, other studies have reported cancer cells in concentrates of peripheral blood in 12 to 61 percent of cancer patients in various stages of their disease.[6–8]

There are several possible reasons for this discrepancy. The previous studies used different methods for concentrating malignant cells, including destroying red cells by various techniques and isolating tumor cells by sedimentation or millipore filters. These techniques may be better for isolating circulating tumor cells. A difference in patient population is not likely to be responsible, since other studies tended to include patients with localized disease. More important, these earlier studies may have had a high proportion of false-positive cases. It is now recognized that circulating megakaryocytes and endothelial cells may be difficult to distinguish from tumor cells on routine blood smears.[22]

Similar difficulty has been encountered in identifying tumor cells in bone marrow aspirates.[23] While cancer cells undoubtedly can circulate freely and are occasionally detected on clinical examination,[1,2] we have decided that this is a relatively rare finding using routine techniques.

Conclusion

We did not find buffy coat concentrates useful in the early detection of leukoerythroblastosis or in the detection of circulating malignant cells in our patients with metastatic disease. The technique may still be valuable in an individual patient who is suspected of having bone marrow metastases. It remains useful, in evaluating patients with pancytopenia, lymphoma, megaloblastic anemia, plasma cell myeloma, and infections involving the bloodstream.[24,25]

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Lung Cancer

Preoperative radiation therapy and surgery

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Complete surgical excision is the only effective cure for cancer of the lung. Five-year, disease-free survival rates of up to 70 percent are consistently achieved by surgery alone in Stage I tumors, such as small lesions confined to the lung without mediastinal node or chest-wall invasion.

However, most tumors referred for surgery, even though confined to the hemithorax, have spread to such areas beyond the lung itself. These cases are designated as Stage III AJC (American Joint Committee for Cancer Staging) and include N2 (mediastinal node metastasis) or T3 (chest wall invasion or proximal main bronchus extension). Surgery alone is rarely curative, even utilizing such radical techniques as mediastinal node dissection, chest-wall resection, and bronchoplasty. With occasional exceptions,[1] the resectability rate in most series is not much more than 60 percent of patients explored, and local recurrence is very high; five-year cure rates rarely exceed 5 percent.

It was logical, then, that ancillary measures, particularly radiotherapy, be employed to supplement surgery in locally advanced cases; conventionally, it has been given postoperatively. However, anecdotal observations indicated that radiotherapy could induce marked regression, and occasionally even complete disappearance of tumor, and could convert unresectable lesions to a technically resectable status.[2,3] Hopefully, therefore, survival rates might be expected to improve.

Bromley and Szur[4] initiated the first formal clinical trial of preoperative radical radiotherapy and surgery. They found that (1) the primary tumor was destroyed in 46.7 percent of cases, (2) inoperable cases became resectable, and (3) there was a high incidence of empyema and bronchopleural fistula, and a 15-percent mortality rate. They admitted that their end results were unimpressive, but predicted that newer methods of administering radiation, together with advances in surgical technique, might minimize problems and extract benefits. Their report evoked intense interest in this combined modality. The most influential result was a series of publications by Bloedorn and Cowley and their associates.[5–7] Using cobalt 60 in radical dose levels of up to 6,000 rads, they confirmed the orthovoltage findings of Bromley and Szur,[4] including primary-tumor destruction in 46 and mediastinal "sterilization" in about 89 percent, and a morbidity and mortality rate of 25 percent. They had anticipated a five-year survival rate of about 20 percent in cases responding to treatment.

Paulson,[8] concentrating on T3 Pancoast tumors, deliberately limited the radiation dose to 3,000 rads, and has since reported a five-year cure rate of 34 percent in resected cases.

Jensik et al.[9] have emphasized the increased opportunity to employ bronchoplasty ("sleeve" resection) with the aid of preoperative radiation therapy.

Large-scale cooperative multi-institutional randomized studies were then initiated in the United States VA (Veterans Administration) and other hospital groups. The VA report in 1970 showed no improvement in survival—indeed, the authors reported a harmful influence on longevity in the radiated group.[10] In a 17-hospital collaborative study of similar design, no difference in survival of a group of initially operable cases was achieved.[11] In another group of 425 initially inoperable cases, 152, or 36 percent, were considered resectable after radiotherapy. Randomization of this residue between surgery and no surgery again yielded equivalent results of 8- and 6-percent five-year survival rates respectively.

Pearson et al.[12] reported a 20-percent, five-year survival rate, using this combination of treatments.

In 1978, Sherman et al.[13] reported a 27-percent, cumulative five-year survival rate. This is similar to survival of all patients with initially resectable lesions. The big advantage was found in patients undergoing pneumonectomy and who had squamous carcinoma.

All these reports include an overwhelming majority of squamous carcinoma, the cell type that is generally considered the least aggressive of the various types of lung cancer.

Case information

This report deals with a personal experience involving 48 patients undergoing formal, planned

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preoperative radiation and surgery from July, 1966, through April, 1980. There were 27 males and 21 females, with an average age of 57.1 years, and a range of 31 to 76. All were Stage III (AJC) including 42 N2, 5 T3, and 2 who were both T3 and N2. All underwent thorough preoperative screening, to rule out distant metastases, and appropriate chemical and physiologic studies to assure their ability to withstand surgery. Mediastinoscopy was the basic prethoractomy staging modality. The right lung was involved in 31 and the left in 17 cases.

Cell type

Adenocarcinoma was the most common cell type, occurring in 31 patients (64.6 percent), including 16 males and 15 females. This predominance of adenocarcinoma is at variance with the previously cited articles, but has now been reported from such diverse areas as Roswell Park Institute, Buffalo, New York,[14] Sloan Kettering Memorial Hospital, New York City,[15] Israel,[16] and most recently the United States VA.[17] There were 8 cases of squamous cell carcinoma, 7 undifferentiated, 1 oat cell, and 1 of unknown histologic origin.

Indications

Mediastinal involvement was present in the vast majority—45 cases. This was largely determined by mediastinoscopy, which was performed in 46 of the 48 cases; the findings were positive in 40 cases. In two patients, mediastinal-node metastases were determined by prior thoracotomy (done elsewhere); of the two who did not have mediastinoscopy, one had obvious radiologic evidence of N2, and the other had a T3 Pancoast tumor.

Radiotherapy dosage

Co^{60} or betatron radiation sources were employed, administering around 3,500 rads to both the primary tumor and mediastinum through parallel opposed fields, followed by an additional 2,000 rads to the mediastinum alone by rotational or equivalent technique. Total dose to the mediastinum thus averaged about 5,500 rads. The dose to the primary tumor was kept lower than this to minimize damage to surrounding lung, and because resection was to be carried out. Treatment took from four to six weeks, five days a week. Patients were then allowed to rest for a period of about six to eight weeks, during which time the usually mild radiation effects subsided. Then, after another clinical evaluation to rule out distant metastases which might have become apparent in the interim, surgery was carried out on an average of 53 days from the completion of radiotherapy (range 9 to 188 days).

Surgery

Forty-seven of the 48 patients underwent thoracotomy. Resection was carried out in 45 (95.7 percent). The forty-eighth patient sustained a cardiac arrest at the time of contemplated thoracotomy, was resuscitated, but never had definitive surgery.

Forty-eight patients with stage III (AJC) lung cancer were treated by preoperative radiation and surgery, with mediastinoscopy the basis for case selection. Forty-one patients were N2, five T3, and two T3, N2; adenocarcinoma was the most common cell type (64.6 percent). Of the 47 patients explored, 45 underwent resection, with a resectability rate of 95.7 percent. There were no surgical complications or operative deaths. There were 27 patients who died of disseminated carcinoma, and 5 who are living with cancer. Brain metastases occurred in 13 of 27 patients who died and 1 of 5 living with cancer. Local intrathoracic control was achieved in most patients. The five-year cure rate (life-table method) was 18 percent, with a median survival rate of 24 months. There are five long-term, cancer-free survivors, one is still alive and well more than 11 years after surgery.

Lobectomy, the most common procedure, was done in 31 patients (68.9 percent); pneumonectomy was done in 12 (26.7 percent). There were three chest-wall resections in conjunction with these procedures. Wedge resection was done in two, and exploration only in two other patients.

Radiation effects on the hilar structures consisted of a "dull edema" and fibrosis, and a thickening of the perivascular and peribronchial tissue planes. Unless these planes were destroyed by carcinoma, they were always apparent, and, with careful, tedious dissection, individual ligation technique was used in all cases. No deliberate attempt was made to reenter the mediastinum in the paratracheal region because of postmediastinoscopy adhesions. Subcarinal nodes could be excised in most cases.

There were no operative deaths, and no cases of empyema, bronchopleural fistula, or wound infection occurred. This attests to the fact that wound healing can occur even at the high radiation doses administered, despite contrary reports in the literature. Of course, the use of modern high-energy radiation sources and skillful field planning helped to keep these radiation-induced changes to a minimum.

Postoperative recovery tended to be slower than in nonradiated cases; return of energy and sense of well-being was delayed. Occasionally, florid manifestations of radiation penumonitis became apparent during the immediate postoperative period even though this was not made manifest preoperatively. In one patient postpneumonectomy, this took on the attributes of an adult acute respiratory distress syndrome which required vigorous supportive management, including steroids, diuretics, digitalis, and oxygen. In all, four patients developed severe radiation pneumonitis, two of whom eventually succumbed from this after about one year.

Effect of radiotherapy on disease

The tumor itself was completely destroyed in only seven cases (15 percent), probably because of the lower (3,500 rads) dose administered to it; the nodes were cancer-negative in 29 cases (61.7 percent). This discrepancy had previously been noted by other observers, notably Bloedorn et al.[6]; 46 and 89 percent, respectively. It supports our thesis that the main goal of preoperative radiation in the N2 cases is the control of the mediastinal nodal bed, leaving pulmonary resection to handle the persistent disease at the primary site. Tumor and nodes were both cancer-positive in 17, tumor-positive and nodes-negative in 23, and both tumor and nodes negative in 7 cases. In the five long-term, disease-free survivors, both sites were cancer-negative in two, primary tumor only cancer-positive in one, and nodes only cancer-positive in two (one hilar and one mediastinal).

Since 1966, 34 of the 48 patients have died; 27 of the 34 (80 percent) succumbed to metastatic carcinoma. Brain metastases occurred in 13 of these, or 48 percent. Local recurrence within the thorax (except for occasional pulmonary metastases) was rare, again attesting to the beneficial local effect of radiotherapy. The high incidence of death due to disseminated disease underlines the basic dynamics of lung cancer, namely that it is an "angioinvasive" disease (Alton Ochsner). Indeed, there may even be something to be said for the deleterious effects of radiotherapy, as evidenced by an increase in circulating tumor cells after treatment.[18] Nevertheless, this pattern of dissemination is about the same as seen in patients of similar stage subjected to surgery alone, wherein the results of surgery are even worse than in the combined-treatment group.

Of the 34 patients who died, 7 succumbed from nonneoplastic causes, including 2 from radiation pneumonitis, 2 from heart disease, and 3 from independent nonpulmonary cancers (bowel, esophagus, and lymphoma).

Of the 14 living patients, 9 were apparently tumor-free for from 1 to 13 months, 2 have bone metastases, 1 brain metastases, and 1 liver metastases (from a previous breast carcinoma). One additional patient had late pelvic-node spread about two years postoperatively. This was treated by surgery and radiation, and the patient was still alive, apparently disease-free at 56 months.

There were five long-term survivors (over five years) at 141, 97, 85, and 60 months.[2] No additional therapy of any kind was given to any of them. Four of the five had adenocarcinoma, strikingly at variance with prior observations. This suggests that patients with adenocarcinoma should not be excluded from combined preoperative radiation and surgery as has been recommended by other writers.

Using a life-table method, the five-year survival rate in the entire group of 45 undergoing resection is almost 20 percent, and the median survival is 24 months.

Comment

Radiotherapy and surgery are both "local" forms of treatment, however "radical" they may be designated. "Complete" resection of the cancer is commonly regarded as the initial step toward cure. However, multiple factors determine ultimate survival.[19] These include cell type, growth rate, type of lymph-node metastases (such as intranodal versus extranodal), blood-vessel invasion, the patient's innate immune capability, and the effects of radiotherapy and surgery. Interwoven among all these are modes of case selection and the population groups from which they are drawn. Skill of the individual diagnostician, radiotherapist, and surgeon is dominant in small series but diluted out in cooperative studies. And at the bottom of it all lies the philosophic basis for the form of treatment selected. Thus, careful analysis of well-studied subsets may yield more truths than does the overwhelming weight of sheer numbers derived from large multi-institutional collaborative studies, and provide appropriate treatment for the individual patient.

Pretreatment staging was heavily influenced by the application of mediastinoscopy in this series. The surgical significance and grim prognosis of mediastinal node involvement is extensively covered in a previous publication.[20] Thus, a firm anatomic basis for preoperative radiotherapy has now replaced the previous, more crude, imperfect clinical and radiologic methods utilized in the VA and collaborative trials, and has all but eliminated the need for primary exploratory thoracotomy.

Traditionally, and in all previous reports, squamous (epidermoid) carcinoma has been the most common cell type. In the current series, adenocarcinoma predominates, and corroboration for this changing distribution of cell type can be obtained from a number of sources.[14–17] Each of these two cell types has its own characteristic topographic and growth pattern.

The squamous cancer is more likely to involve larger bronchi, to remain localized to the thorax longer, and to disseminate less widely and less often to the brain. The adenocarcinoma tends to be more peripheral and more inclined to hematogenous and cerebral spread. Response of the two to radiotherapy is about the same, however, despite earlier reports favoring squamous carcinoma. The type of surgery carried out in the VA and collaborative studies was mainly pneumonectomy, largely because of the predominance of squamous carcinoma in those series. The current change in favor of adenocarcinoma will result in more lobectomies as evidenced by the present report.

Collier et al.[21] have documented the high incidence of blood-vessel invasion in histologic sections and have correlated its presence with poor survival. Hayada et al.[18] have demonstrated an increased incidence of circulating tumor cells in the peripheral blood after radiotherapy. These observations, combined with the known immunosuppressive effects of radiation, help to explain the high incidence of hematogenous dissemination including brain metastases in the current series, despite excellent local control.

It appears logical, therefore, that rather than regarding preoperative radiation and surgery as a complete form of therapy, additional systemic modalities should be evaluated in future studies. Currently available chemotherapy, although theoretically attractive, cannot be relied on to afford such protection.

An opinion should be expressed about the difference between preoperative and postoperative radiotherapy in N2 cases. Superficially they seem to be the same. However, the population base from which such patients are drawn varies from a highly selected group reported by Kirsh et al.[22] to the more unselected series of Memorial Hospital.[23] In the latter group, resectability of all patients explored is around 60 percent. Thus, 40 percent of their patients have undergone fruitless thoracotomy; in the present report, with precise preoperative evaluation by means of mediastinoscopy, a resectability rate of 95.7 percent can be achieved. In terms of the total picture, the avoidance of useless exploratory thoractomy is no mean benefit.

Summary

Forty-eight patients with Stage III lung cancer, largely N2, staged by mediastinoscopy were subjected to a program of preoperative radiation and surgery.

Forty-five patients completed the treatment plan with a resectability rate of 95.7 percent.

There were no postoperative deaths, empyemas, bronchopleural fistulas, or wound infections.

Four patients developed radiation pneumonitis, with two late deaths.

Local control of tumor in the chest was successful in most cases. Systemic spread including a high incidence of brain metastases proved to be the major cause for failure.

The five-year, disease-free survival rate by a life-table method was 20 percent, with a median survival rate of over 24 months.

Combined preoperative radiotherapy and surgery is recommended for Stage III N2 in lung cancer of any cell type except oat cell, and is our treatment of choice at this time.

Future treatment protocols adding chemotherapy should be investigated to try to minimize the high death rate from disseminated disease.

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Blood Grouping Tests for Paternity and Nonpaternity

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Newer aspects of blood testing for genetic markers has improved the exclusion rate of falsely accused men and leads to a "probability of paternity" approaching 99.9 percent. The results of 3,000 paternity cases indicate that only a 65 percent exclusion rate can be obtained by the use of RBC (red blood cell) antigen tests alone, when a man is falsely accused; however, by performing histocompatibility leukocyte antigen studies an exclusion rate of 95 to 99 percent is attainable. An increased exclusion rate to 99.9 percent can be obtained in average cases by the use of RBC antigen and plasma protein tests. Calculation of the probability of paternity permits a decision regarding paternity, especially if other circumstances such as access and date of exposure are considered. Clinical pathologists capable of performing blood grouping tests should be increasingly involved in these matters and should be familiar with the procedures and availability of testing facilities.

A recently published reprint with both American Medical Association (AMA) and American Bar Association sponsorship[1] has been circulated among clinical pathologists, blood bankers, and serologists. This article presented the possible effectiveness in determining nonpaternity and plausibility of paternity by utilizing red blood cell antigens, blood enzymes, serum proteins, and HLA (histocompatibility leukocyte antigen) typings of the blood of litigants in paternity disputes. While extremely optimistic in its projections, the problems of (1) the unavailability of the more exotic red blood cell (RBC) antisera and HLA antisera, as well as (2) the lack of familiarity with the technics of testing and the genetics of the RBC enzyme and serum proteins systems make these determinations rather impractical for the average pathologist. In the hands of many workers who might be inspired to perform these tests there will unquestionably follow laboratory errors and misinterpretations that could result in gross miscarriages of justice and subsequent penalties for the victims of these errors. The earlier experts in the field of serologic testing for nonpaternity such as Wiener and Levine strove for an error-free science by setting up rigid rules and requirements that this field of forensic science be in the hands of qualified experts. This was emphasized in the Report of the Commission on Medicolegal Problems of the AMA.[2] Such restrictions are no longer applicable nor controllable.

However, the specificity of the antisera available commercially at present makes it possible and feasible for the usually utilized blood group systems such as ABO, MNSs̄, Rh-Hr, Duffy, Kidd, and Kell,[3-6] whose laws of inheritance are well understood, to be used by competent serologists for the determinations of nonpaternity. Familiarity with the exceptions and pitfalls[7,8] is essential. These have been published and are available for all laboratory workers. The very fact that 75 percent of falsely accused men can be proved innocent of the charge of paternity by the above tests is well recognized. Ordinarily such conclusions are not subject to challenge, as might be the case with the newer tests which have not been universally accepted by the courts. In many jurisdictions a report of nonpaternity, if based on the conventional RBC antigen tests, is considered decisive of the issue. In previous publications more than one third of the acquittals of falsely accused men were obtained by these tests.[9,10] Even in situations where an accused man admits paternity it has been shown that probably 18 percent are not the fathers of the children for whom they erroneously admit paternity.[11] To deny a respondent the benefits of this evidence precludes his strongest possible defense from being utilized.

This report encompasses the experience of the past 20 years, during which time 3,047 disputed paternity suits were subjected to RBC groupings utilizing the ABO, MN, Rh-Hr, and in many cases Ss̄, Kell, Duffy, Kidd, and X^{ga} blood group systems. Table I illustrates the findings in this series, and demonstrates that 453 or 14.85 percent of cases studied resulted in exclusions. Since the probable rate of exclusion is 65 percent[11] of falsely accused defendants, 697 men were, therefore, probably not the involved fathers. To this figure must be added the 279 cases where the complainant would not appear for the court ordered test, certainly a suspicious situation. Therefore, 976 men were probably falsely accused, representing 29.34 percent of the men who denied paternity (Table I).

TABLE I. Results in 3,047 disputed paternity cases using ABO, MNSs, Rh-Hr, Kell, Duffy, and Kidd systems

Totals	Number	(Percent)
Cases	3,047	. . .
Exclusions	453	(14.86)
Probability of exclusion	. . .	(65.00)
Probable exclusions	697	(22.87)
"No show"	279	(8.38)
Probably falsely accused	976	(29.34)

TABLE II. Systems under which exclusion obtained

System	Number of Cases
ABO	147
MNSs	177
K	14
Rh-Hr	237
rh	4
Rh_o	22
rh′	132
rh″	70
hr(f)	9
Fy^a-Fy^b	2
Jk^a	1

Of interest is the system under which the exclusions were obtained. Table II demonstrates these results.

In many cases more than one RBC system was involved in exclusion. Of the 453 cases resulting in exclusion, there were 350 cases of single-system exclusion, 84 double exclusions, 16 triple exclusions, and 3 cases involving four RBC systems in the exclusion process.

The ethnic distribution of the cases studied and the exclusions obtained is also of interest. The percentages of exclusion, shown in Figure 1 are remarkably similar; however the system whereby these exclusions were obtained show marked differences with the various ethnic groups (Figure 2). Typical examples of exclusions obtained are shown at the end of this article.

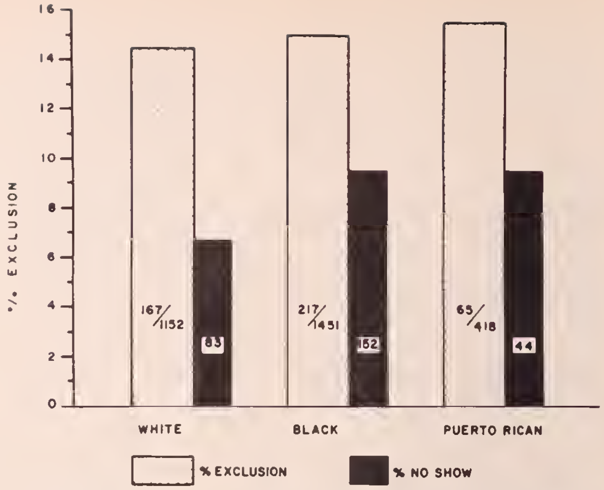

FIGURE 1. Blood test exclusions by racial groups.

The relatively low cost of the usual blood grouping tests involving six antigen systems is approximately \$100 to \$150 (ABO, MNSs̄, Rh-Hr, Kell, Duffy, and Kidd). The addition of HLA testing increases the cost to \$500 or \$600. It would seem useful, therefore, since 65 percent[1] of falsely accused men can be excluded by RBC antigen tests alone, that this be the

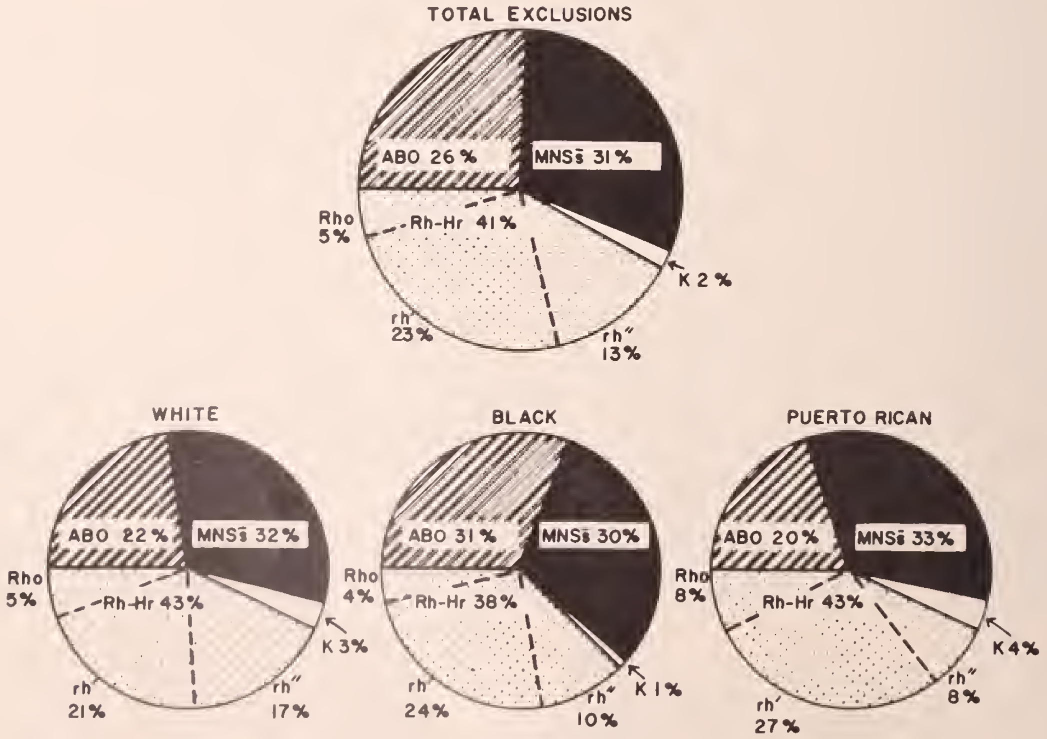

FIGURE 2. Exclusions of paternity by blood group systems: 3,047 cases with 453 exclusions.

TABLE III. Usefulness of blood typing in paternity cases*

System	Commonest Phenotype	Paternity Exclusion Frequency (Nonfathers)	
		This System	Subtotals
RBC Antigen			
ABO (1900)	O	0.185	
MN (1927)	MNs	0.316	
Rh (1939)	Rh$_1$rh(C^w−)	0.312	
Kell (1946)	K−	0.053	
Duffy (1950)	Fy(a + b+)	0.181	
Kidd (1951)	Jk(a + b+)	0.187	0.758
HLA (1952) (lymphocyte antigens)	A1,A2,B8	0.95	0.95
Serum proteins			
Haptoglobin (1955)	Hp:2 − 1	0.184	
Gm (1956)	Gm:−1,−2,3	0.256	
Transferrin (1957)	Tf : C	0.133	
Gc (1959)	Gc : 1	0.285	
Km (1961)	Km:−1	0.068	
Ag (1961)	Ag : x − y+	0.136	
Orosomucoid (1961)	ORO : FS	0.177	
C3 (1968)	C3 : S	0.152	
Bf (1972)	BF : S	0.177	0.826
RBC enzymes			
Acid phosphatase (1963)	ACP : BA	0.226	
6-phosphogluconate dehydrogenase (1963)	PGD : A	0.023	
Phosphoglucomutase-1 (1964)	PGM : 1	0.319	
Adenylate kinase (1966)	AK : 1	0.028	
Adenosine deaminase (1968)	ADA : 1	0.043	
Glutamic-pyruvic transaminase (1971)	GPT : 2 − 1	0.195	
Glyoxalase (1971)	GLO : 2 − 1	0.185	
Esterase-D (1973)	ED : 1	0.082	
Phosphoglycolate phosphatase (1978)	PGP : 1	0.149	0.754
			TOTAL = 0.9995 = W†

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† Likelihood of paternity. See Table IV.

first step in testing for nonpaternity. Failure to exclude at this step may warrant the expense of the additional HLA testing, which would increase the probable exclusion rate to 95 percent. A further increase reaching 99.95 percent can be achieved by testing the RBC enzyme and plasma proteins, since they too are genetic markers (Table III). This could be done as a second step. It would seem unwise to proceed with RBC, HLA, and RBC enzyme and plasma protein testing at one step when the RBC antigen system can provide the answer in two thirds of the cases.

The temptation to use a mathematical formula for calculating the probability of paternity in cases where an exclusion is not obtained, is very great (Table IV).[1] There is, however, the risk of undue influence on the court when a report of a "95 percent or higher probability of paternity" is presented. Even at the 95 percent level, the fact is that a 5 percent chance of nonpaternity exists! The circumstances that should be considered such as access, time, multiple exposures, promiscuity, and so forth must be given their proper weight in arriving at a conclusion when the "probability of paternity" is presented. On the other hand, a definite exclusion of paternity by well-documented blood grouping tests leaves no room for doubt if the tests are shown to have been properly done and interpreted by an expert serologist.

TABLE IV. Likelihood of paternity values*

W*	Likelihood of Paternity†
0.9980–0.9990	practically proved
0.9910–0.9979	extremely likely
0.9500–0.9909	very likely
0.9000–0.9499	likely
0.8000–0.8999	undecided
less than 0.8000	not useful

* "Plausibility of paternity" formula of Professor Essen-Möller is:

$$W = \frac{1}{1 + (Y_1/X_1 \cdot Y_2/X_2 \cdot Y_3/X_3 \ldots)}$$

† Interpretation of Professor Hummel, as published in *Family Law Quarterly* 10: 262 (1976).

Conclusion

It is important, therefore, that the expert who performs tests for nonpaternity considers the least costly tests to arrive at a conclusion and saves the more sophisticated procedures involving expensive and rare antisera for those situations where RBC studies alone are not conclusive.

Exclusions Obtained by Various Systems

1. ABO exclusion

alleged father	AB	M	S + $\bar{s}$−	K−	rh′rh (Cde/cde)
mother	O	MN	S−	K−	Rh$_1$Rh$_1$ (CDe/CDe)
child	O	N	S−	K−	Rh$_1$rh (CDe/cde)

2. Maternal exclusion rh″

alleged father	deceased				
mother	B	M	S−	K−	Rh$_2$Rh$_2$ (cDE/cDE)
child	O	MN	S−	K−	Rh$_1$Rh$_1$ (CDe/CDe)

3. rh″exclusion

alleged father	B	MN	S−	K−	Rh$_0$ (cDe)
mother	O	MN	S+	K−	Rh$_1$rh (CDe/cde)
child	O	MN	S + $\bar{s}$+	K−	Rh$_1$Rh$_2$ (CDe/cDE)

4. rh′-hr′ exclusion

alleged father	O	MN	S−	K−	Rh$_1$Rh$_1$ (CDe/CDe)
mother	A$_1$	N	S−	K−	Rh$_1$Rh$_1$ (CDe/CDe)
child	O	MN	S−	K−	Rh$_1$rh (CDe/cde)

5. MNS exclusion

alleged father	O	M	S−	K−	Rh$_1$rh (CDe/cde)
mother	B	M	S−	K−	Rh$_1$rh (CDe/cde)
child	O	M	S−	K−	Rh$_1$rh (not excluded) (CDe/cde)
child	O	MN	S+	K−	Rh$_1$rh (CDe/cde)

6. hr(f) exclusion

alleged father	A	M	S+	K−	rh (cde/cde)
mother	O	MN	S+	K−	Rh$_1$Rh$_2$ (f negative) (CDe/cDE)
child	O	MN	S+	K−	Rh$_1$Rh$_2$ (f negative) (CDe/cDE)

7. MN-rh″ exclusion

alleged father	O	N	S−	K−	Rh$_1$rh M^{g-} (CDe/cde)
mother	O	MN	S−	K−	Rh$_1$Rh$_1$ (CDe/CDe)
child	O	M	S−	K−	Rh$_1$Rh$_2$ M^{g-} (CDe/cDE)

8. MN-S$\bar{s}$ exclusion

alleged father	O	M	S + $\bar{s}$−	K−	Rh$_1$rh M^{g-} (CDe/cde)
mother	O	MN	S+	K−	Rh$_1$rh (CDe/cde)
child	O	N	S−	K−	Rh$_1$Rh$_1$ M^{g-} (CDe/CDe)

9. HLA exclusion

RBC no exclusion

alleged father	O	N	S−	K−	rh (cde/cde)
mother	A$_1$B	MN	S−	K−	Rh$_o$ (cDe)
child	B	MN	S−	K−	Rh$_o$ (cDe)

HLA exclusion

alleged father	28A/17B—23A/BU
mother	23A/45B—33A/35B
child	23A/45B—30A/ 8B

Child obtained haplotype 23A/45B from mother. Other haplotype 30A/8B not present in alleged father.

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Acknowledgments. The authors gratefully acknowledge the technical assistance of Mrs. Hannah Pretshold and Mr. Sofio Las.

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Electrocardiograms of the Month

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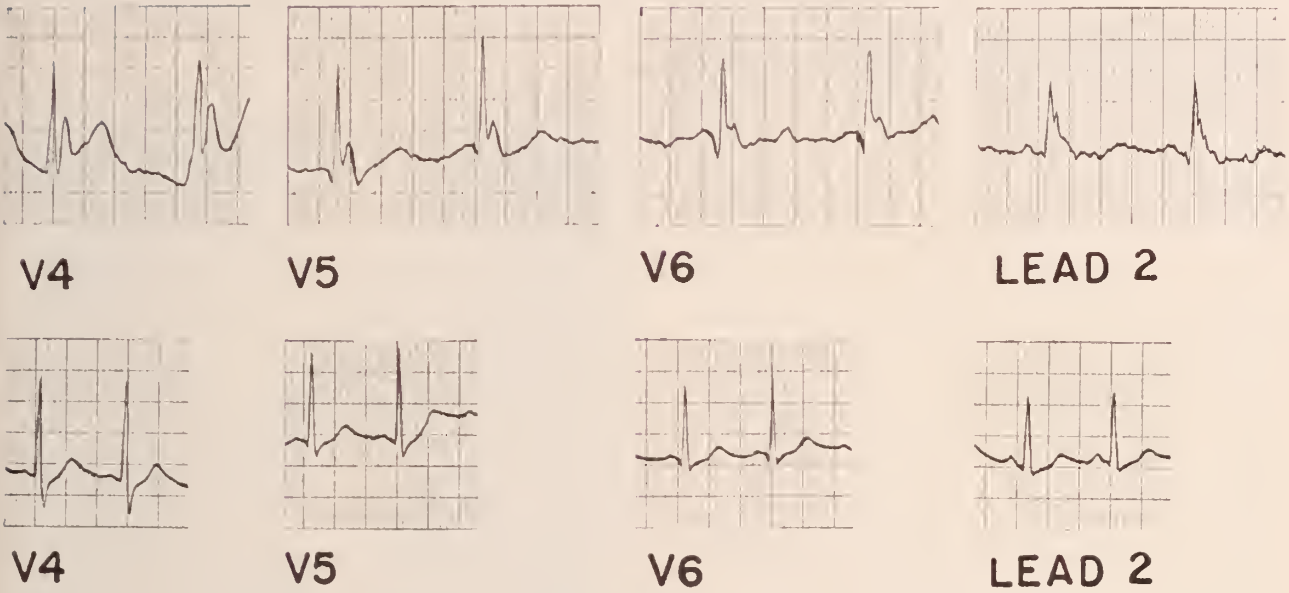
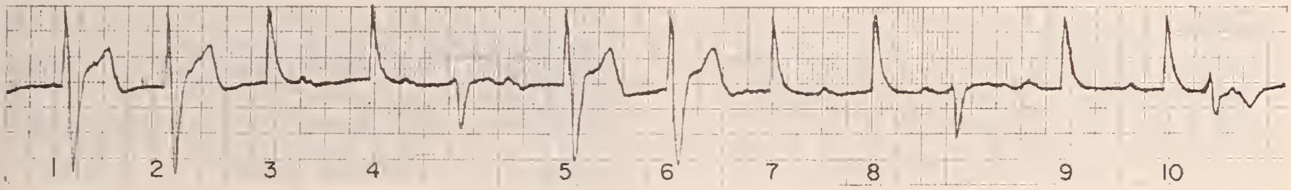


QUESTION 311. The top leads were obtained on admission from a 42-year-old male alcoholic admitted in deep coma. The above leads were taken 36 hours later when patient was conscious.



QUESTION 312. Patient has a demand (standby) pacemaker. Lead 2. What is the interpretation?

Electro-
cardiograms
of the Month

ELUCIDATION

Question 311. In the top leads the rhythm is sinus at a rate of 63 beats per minute. There is a sharp positive wave appearing after the initial R wave of each QRS. These waves are called Osborne waves. They are observed in patients with hypothermia. The patient's temperature on admission was 84° F.

In the bottom leads the patient's temperature was 98° F. and the Osborne waves have disappeared.

Question 312. The first four pacer spikes are regular at a rate of 74 beats per minute. The first two are followed by ventricular depolarizations. The next two pacer spikes fail to depolarize (capture) the ventricles. Following the fourth and eighth spikes, there are spontaneous QRS depolarizations which inhibit and reset the pacemaker. The fifth and sixth spikes depolarize the ventricles but the seventh, eighth, ninth, and tenth do not. P waves are present at a rate of approximately 70 beats per minute. None are conducted to the ventricles.

This demand pacemaker is malfunctioning, since all spikes do not capture the nonrefractory ventricle. The demand or standby function of the pacemaker is working properly since spontaneous QRS complexes turn off and reset the pacemaker.

BOOK REVIEWERS NEEDED

The New York State Journal of Medicine has accepted the responsibility to review the latest books in the field of medicine submitted to it by the publishers. The Journal is updating its list of reviewers and is asking the participation of physicians in this worthy endeavor.

The books are mailed with detailed instructions and are to be retained by the reviewer, with the Journal's compliments. Won't you please volunteer to render this important and greatly appreciated service to your colleagues? The Journal and they depend on your continued interest and cooperation.

Radiologic Problem of the Month

Montefiore Hospital and Medical Center
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Editor

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Professor of Radiology at
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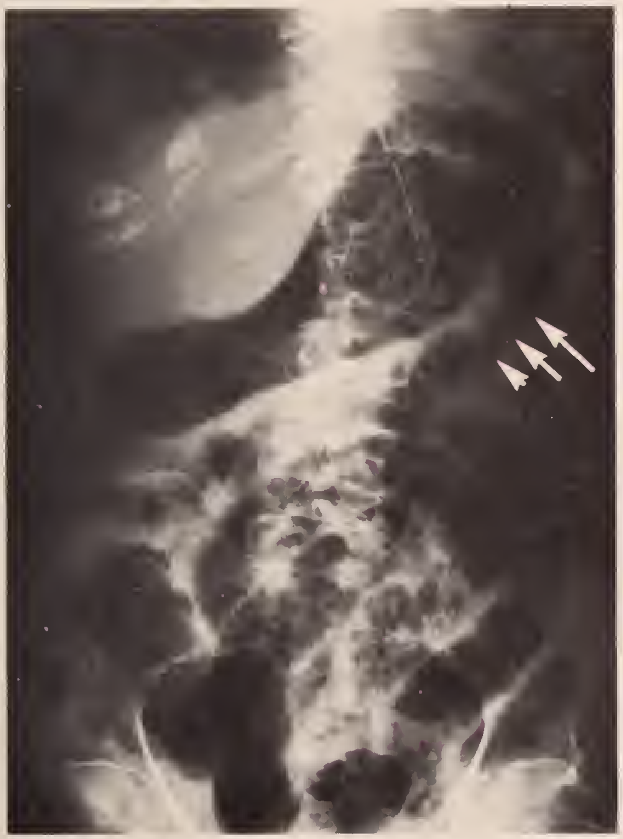
Acute Abdomen



A 72-year-old man with a complaint of acute abdominal pain and distension of a few hours duration. A nasogastric tube was inserted and 300 cc. of brownish fluid was aspirated prior to radiological examination of the abdomen.

Elucidation

Anteroposterior view of the abdomen reveals moderate gaseous distension of the stomach. A nasogastric tube is in situ. There is moderate gaseous distension in loops of small bowel and right colon. In addition, the proximal loop of jejunum shows "thumb-printing" defects along the wall (white arrows).

Gas distribution in the small bowel and right side of the colon indicates a nonspecific type of adynamic ileus and not acute mechanical intestinal obstruction. The thumb printing defects in the wall of proximal jejunum indicate either edema, inflammation, hemorrhage, or infiltration with malignant cells along the attachment of the mesentery. In this 72-year-old person, the findings in the jejunum should raise the possibility of a vascular accident since he appeared with acute abdominal symptoms.

The tubular gas shadows in the hepatic area represent gas in the intrahepatic portal venous system. Presence of hepatic portal venous gas is generally considered to be an ominous radiologic sign that portends imminent death. The causative factors for this gas are many, depending on the age of the patient. In infants, portal venous gas is often associated with necrotizing enterocolitis.[1–3] With the increasing use of umbilical catheterization, for example blood gas analysis or transfusions, presence of gas in the portal venous system is not an uncommon finding. However, the amount of gas that is present is small, is transitory, and disappears after a short interval. In adults, the most common cause of portal venous gas is bowel infarction and necrosis.

Pathogenesis of portal venous gas is due to gas-forming organisms, such as *Aerobactor aerogenes*, *Proteus mirabilis*, or *Clostridium* invading necrotic bowel and mesenteric veins. Another possibility is severe bowel distension resulting in mucosal tears, allowing for entry of air into the intramural bowel wall, which subsequently gains access to the portal venous system.

Radiologically, gas in the intrahepatic ramifications of the portal vein characteristically appears as branching and tubular lucencies extending from the porta hepatis to the periphery of the liver. At times, it is problematic to differentiate whether the gas is in the hepatic artery, bile duct, or portal vein as these three structures lie within a common sheath. Gas in the hepatic artery is extremely rare[3] and should not be considered in the differential diagnosis. However, gas in the biliary tract is a relatively common finding. Beside the iatrogenic gas in the biliary tract from surgical procedures, gallstone ileus is to be considered in patients who have acute abdominal pain and distention. Gas in the biliary tree does not generally extend to the periphery of the liver. The continuous, centripetal flow of bile prevents the gas from spreading peripherally and confines it to the larger, centrally located radicles. In many instances, an associated radiologic finding is the presence of gas in the extrahepatic biliary tract. Gas in hepatic veins is another rare phenomenon and presents a completely different radiologic pattern. The hepatic veins enlarge cephalad, enter the inferior vena cava or right atrium and, thus, can be distinguished easily when gas is present intraluminally.[2,3]

This patient died within 24 hours.

Autopsy findings revealed that an extensive infarction of small bowel was present with mesenteric artery thrombosis and there was gas in the portal venous system.

Diagnosis

Infarction of small bowel with presence of intrahepatic portal venous gas

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Winter blizzards trigger deaths from heart attacks

More than 1,200 people die each year from heart attacks brought on by major snow storms, says a report in the January 9 Journal of the American Medical Association.

Each winter heart attacks are recorded in men who are shoveling snow, pushing stalled cars, and otherwise engaging in unusual physical exertion after blizzards.

And each winter medical authorities issue warnings to the sedentary office workers to take it easy during the first big blizzard of the season.

But a study of heart attack victims during the Chicago blizzard of January 15, 1979, which dumped more than 20 inches of fresh snow on the city, found that physicians are unable to predict which men are most likely to have heart attacks during winter exertion.

Those with a previous history of heart disease and heart attacks were no more likely to have another heart episode during the blizzard than were men with no previous heart problems, says Roger I. Glass, M.D., of the Center for Disease Control, Atlanta.

Dr. Glass compared records of 60 men who had heart attacks in the week of the Chicago blizzard with a group of men suffering heart attacks during a nonblizzard week. He found that a previous history of heart disease had no effect on the rate of subsequent heart attacks, during snow storms.

Public health authorities might warn the general populace about the hazards of postblizzard periods, but cannot specify who would be at greater risk. Dr. Glass declares.

"Whether even this general warning would be heeded is debatable, because a physician's warning against shoveling snow did not deter men with a previous myocardial infarction from shoveling."

Volume Receptor Control of ADH Release in Essential Hypernatremia

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EH (essential hypernatremia) is a clinical syndrome characterized by hypernatremia which cannot be explained by body fluid deficits alone. Most of these patients have defective thirst and failure to appropriately concentrate or dilute their urine in response to hyper- or hypo-osmolar stimuli.[1] Several patients have had intact alteration of urine tonicity with volume receptor stimulation.[2–4] These latter patients rely on volume receptors without the usual osmoreceptor input to regulate their urine concentration. In a patient with EH, we have documented all the abnormalities given using physiologic protocols. We have also provided further information on the volume receptor mediated ADH (antidiuretic hormone) responses which explain many of the physiologic abnormalities seen in patients with EH and result in a reversal of the normal diurnal pattern of water excretion. This reversed diurnal pattern of water excretion provides a simple clue to the presence of unmodified volume receptor control of serum sodium in a patient with EH.

Case report

In December, 1968, a 42-year-old white male underwent clipping of a ruptured Berry anterior communicating artery aneurysm. Postoperatively, serum sodium rose to 180 mEq. per liter. Vasopressin injection (Pitressin) was used initially to help regulate serum sodium. Subsequently, vasopressin injection was discontinued, and an intake of 2 L. of water and a low-salt diet was used. Serum sodium on this regimen ranged from 139 to 155 mEq. per liter. During this period, the patient manifested an elevated BUN (blood urea nitrogen) (28 to 75 mg. per 100 ml.) probably due to dehydration and suspected underlying renal insufficiency (creatinine clearance 70 ml. per minute). The patient had one episode of acute pyelonephritis prior to the onset of his hypernatremia, but findings on intravenous pyelogram were normal. The patient's cardiac and pulmonary status were normal, as were findings on his thyroid, adrenal, and pituitary functions studies (Table I).

TABLE I. Thyroid, adrenal, and pituitary functions

Endocrine Data	Patient Findings	Normal Values
Hormone		
T_4MP (serum thyroxine)	5.6 micrograms per 100 ml.	4 to 11.3
T_3RU (resin T_3 uptake)	88 percent	80 to 120
Thyroid stimulating hormone	4.3 microns per milliliter	0 to 5
8:00 A.M. plasma cortisol	17 micrograms per 100 ml.	5 to 25
8:00 A.M. plasma cortisol	13 micrograms per 100 ml.	5 to 25
After 40 U adrenocorticotropic intravenously	53 micrograms per 100 ml.	. . .
Urine 17 hydroxy corticosteroid	5.9 mg. per 24 hours	2 to 10
Urine 17 ketosteroids	15.4 mg. per 24 hours	5 to 25
Insulin-induced hypoglycemia (0.1 micron regular insulin per kilogram body weight)		
Glucose basal	106 mg. per 100 ml.	. . .
Glucose nadir	34 mg. per 100 ml.	. . .
Cortisol basal	6 micrograms per 100 ml.	5 to 35
Cortisol maximum	40 micrograms per 100 ml.	Increase >8 micrograms per deciliter over base line
Growth hormone basal	2.2 ng. per milliliter	<5 ng. per milliliter
Growth hormone maximum	16.9 ng. per milliliter	Increase >5 ng. per milliliter above base line

On more than 12 occasions since 1968, the patient was admitted to various hospitals with episodes of hypernatremia, and serum sodium ranging from 157 to 186 mEq. per liter (Table II), accompanied by proximal muscle weakness, confusion, slurred speech, headache, and dizziness. These clinical abnormalities corrected after hydration.

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* At present: Chief, Renal Disease Section, Wm. Jennings Bryan Dorn Veterans' Hospital, Columbia, South Carolina.

TABLE II. Routine laboratory determinations during episodes of hypernatremia

Laboratory Data	August 22, 1969	February 18, 1970	June 30, 1970	August 25, 1972	March 8, 1977
Na milliequivalents per liter	186	171	163	160	164
K milliequivalents per liter	3.5	3.4	3.2	3.4	3.5
Chlorine milliequivalents per liter	140	135	135	129	130
BUN milligrams per 100 ml.	76	63	41	46	28
Creatinine milligrams per 100 ml.	...	1.6	1.3	...	...
Posm mOsm per liter	367	...	340	...	...
Specific gravity	1.015	...	...	1.025	...
Uosm mOsm per liter	...	485	...	...	556

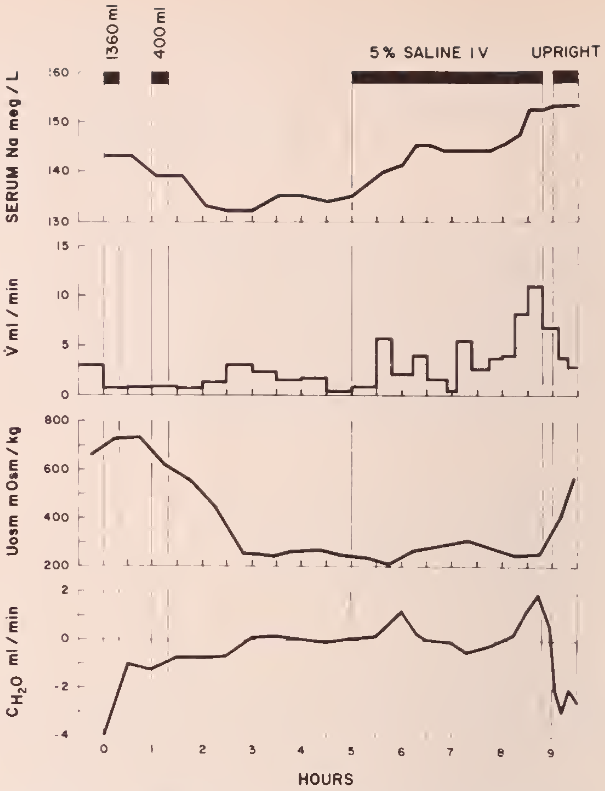

FIGURE 1. Delayed excretion of water load and failure to appropriately raise urine osmolality with hypertonic saline. Decreased $\dot{V}$ and increased Uosm with upright posture.

Methods and results

Informed consent was obtained for all experimental protocols, which were started between 8 and 10 hours later. The patient remained recumbent except when otherwise indicated. Urine collections were obtained via urethral catheter. Hypertonic saline was infused via infusion pump to achieve uniform administration. The patient's weight, except where noted, was stable prior to each study and ranged from 65.5 to 67.0 Kg. Creatinine clearance remained stable in all studies.

We concluded that ADH was being secreted if, in the face of a stable Cosm (osmolar clearance), the C_{H_2O} (free water clearance) finding was negative.[5,6] A negative free water clearance is equivalent to finding that Uosm (urine osmolality) is greater than Posm (plasma osmolality).

$$\text{Cosm} = \frac{\text{Uosm}}{\text{Posm}} \cdot \dot{V}$$

(Where Uosm = urine osmolality in mOsm per Kilogram; $\dot{V}$ = urine minute volume)

$$C_{H_2O} = \dot{V} - \text{Cosm}$$

(Posm = plasma osmolality in mOsm per kilogram; $\dot{V}$ = urine minute volume in millilter per minute)

$$TcH_2O = -C_{H_2O}$$

(TcH_2O = free water reabsorption)

Recumbent dehydration. Three days of recumbent dehydration on a fluid-free diet consisting only of dry cereal led to a 4-kg. weight loss and a rise in serum sodium from 135 to 155 mEq. per liter, BUN from 20 to 40 mg. per 100 ml., and serum creatinine from 1.1 to 1.3 mg. per 100 ml. During the entire three-day period, the patient did not admit to thirst, while his urine osmolality increased to 1,050 mOsm per kilogram. Thus, absent thirst with resulting dehydration was one factor in the production of this patient's hypernatremia. The production of a concentrated urine reflects volume receptor stimulation, osmotic receptor stimulation, or both.

Inappropriate responses to osmolar stimuli. *Hypo-osmolar stimuli (water load).* After a water load of 25 ml. per kilogram (1,360 + 400 ml.), serum sodium fell from 142 to 132 mEq. per liter (Fig. 1). The patient failed to have a water diuresis (CH_2O never exceeds 0 ml. per minute) and excreted only 24 percent of the water load in five hours. Persons with a normal response excrete at least 80 percent of a water load within five hours.[7] After eight days of ingestion of 5 L. of water daily, the patient's 7:00 A.M. weight increased by 2 kg. and he was able to excrete a dilute urine. At this time, a water load of 40 ml. per kilogram led to a decline in serum sodium from 135 to 126 mEq. per liter, and a fall in urine osmolality from 533 to 100 mOsm per kilogram (Fig. 2). Urine minute volume ($\dot{V}$) during this time increased from 2 to 8 ml. per minute. Based on a creatinine clearance of 70 ml. per minute with 12 ml. of $C\dot{H}_2O$ produced per 100 ml. GFR (glomerular filtration rate),[8] the patient's maximal free water clearance was 8.4 ml. per minute.

Hyperosmolar stimuli (hypertonic saline). The anticipated response to infusion of 0.1 ml. per kilogram per minute of 5 percent NaCl (sodium chloride) following a water load would be a decrease in urine

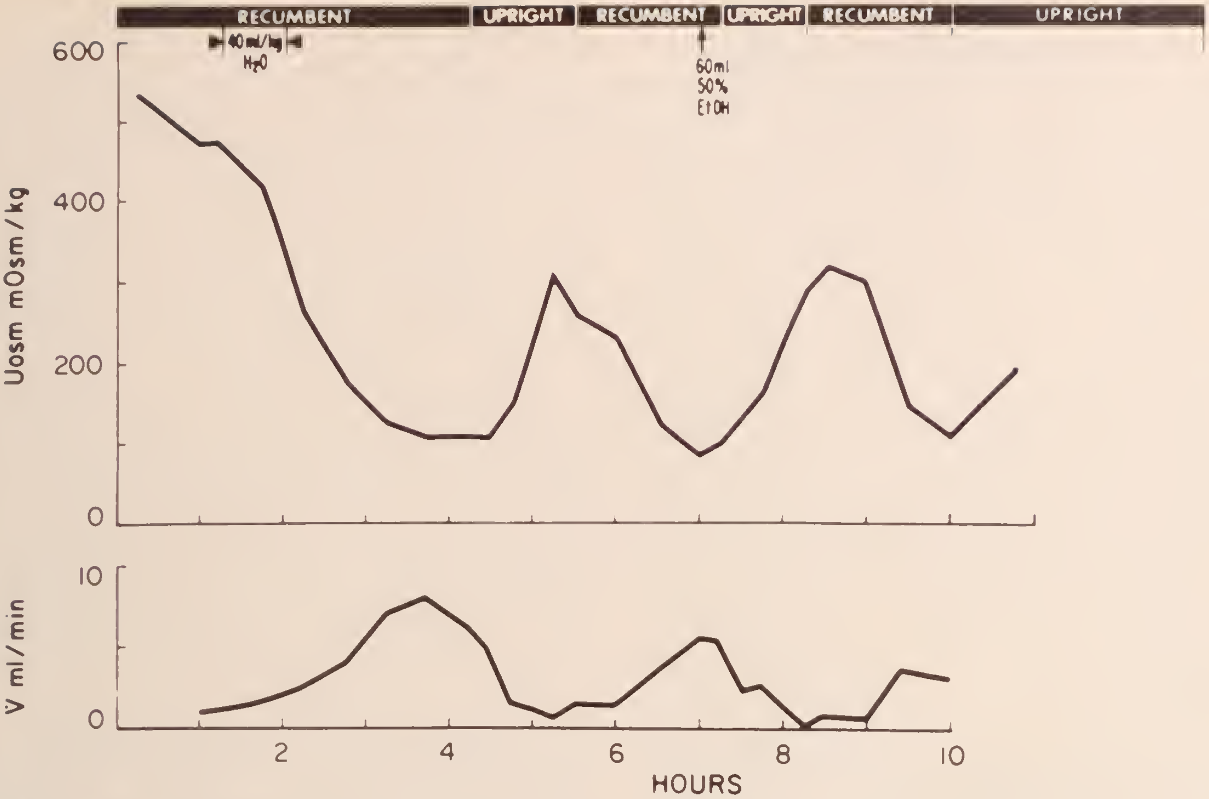

FIGURE 2. After chronic water loading, free water produced with normal maximal V̇. Consistent decrease in V̇ and increase in Uosm with upright posture. Failure to inhibit this postural response with 50 percent ethanol.

volume and CH_2O. Following such challenge, our patient's urine osmolality failed to rise above 317 mOsm per kilogram despite a rise in serum osmolality from 273 to 319 mOsm per kilogram (Fig. 1).

To confirm further the patient's failure to concentrate urine in response to hyperosmolality and to exclude the role of volume expansion due to prior water loading which may raise the threshold for ADH release,[9] hypertonic saline was next infused without a prior water load (Fig. 3). Here a rise in serum sodium from 136 to 155 mEq. per liter, and plasma osmolality from 283 to 320 mOsm per kilogram, was accompanied by a decline in urine osmolality from 537 to 336 mOsm per kilogram. Prior to being upright, the patient's TcH_2O decreased in the face of a stable Cosm. This implies that hyperosmolal infusion failed to activate osmoreceptors, and the volume load from hypertonic saline probably resulted in inhibition of ADH.

Volume receptor responses. Upright posture results in a decrease in urine minute volume and an increase in urine osmolality. This effect is abolished with a prior water load.[10] Despite prior water or hypertonic saline loading, our patient consistently showed a decrease in V̇ and an increase in urine osmolality when assuming the upright posture (Figs. 1 to 4).

This volume receptor response, studied during a 75 degree upright tilt, was not accompanied by a decrease in inulin or PAH clearance (measured by standard bladder catheterization techniques) or blood pressure (Table III). Thus, decreased GFR or renal blood flow was not the cause of the increase in urine osmolality with upright posture. Administration of 60 ml. of 50 percent ethanol 15 minutes prior to upright tilt failed to inhibit urine concentration (Fig. 3).

To study further these postural responses, the patient's diurnal variations in urine output were examined (Fig. 4). While on an 88 mEq. sodium diet and 2.5 to 3 L. fluid intake, urine was collected in 12-hour aliquots. The patient was upright or sitting during the 7:00 A.M. to 7:00 P.M. period and mainly recumbent from 7:00 P.M. to 7:00 A.M. He consumed 75 percent of his fluid intake during the day. Normally, urine formed at night has a higher osmolality and a lower minute volume than daytime urine.[11] In our patient, a reversal of this normal diurnal pattern can be seen with nearly double the daytime volumes and lower urine osmolality at night while recumbent (Fig 4). To prove that this effect is postural and not related to time of day, on day four the patient remained recumbent during the day and upright at night with normalization of his diurnal pattern (Fig. 4). Free water clearance decreased with upright posture while osmolar clearance remained stable, implying increased ADH effect in the upright position.

During a recent admission, March, 1977, the patient's serum sodium was rapidly corrected from 164

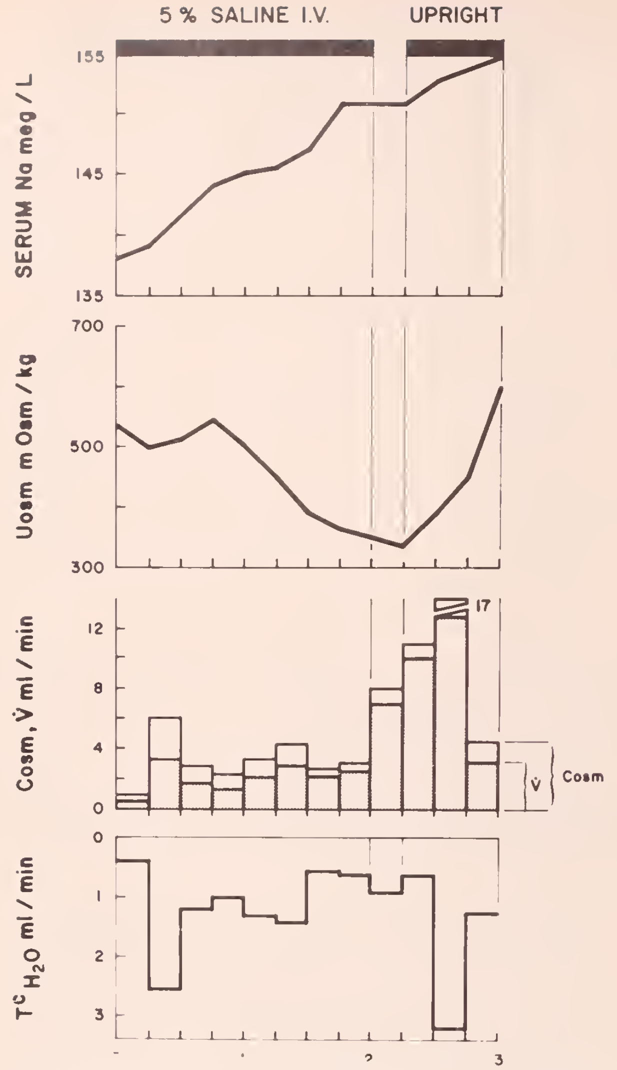

FIGURE 3. Production of more dilute urine and failure to increase TcH_2O after hypertonic saline infusion. Decrease in urine V̇ and increase in Uosm with upright posture.

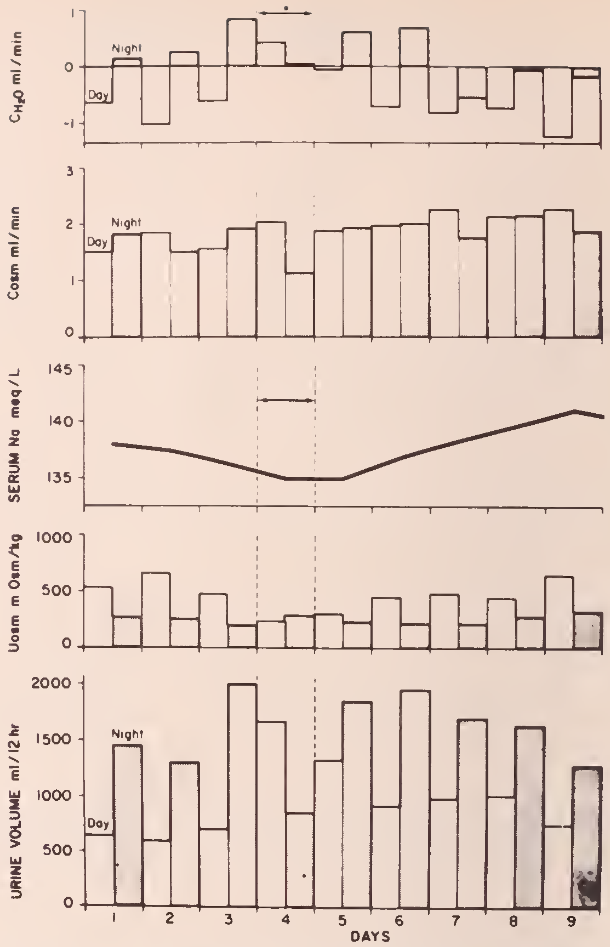

FIGURE 4. Increased urine volume and free water clearance CH_2O at night, that is, reversed diurnal pattern of water excretion. * indicates 24-hour period where patient was recumbent in daytime and upright at night. Recumbent diuresis now occurred during daytime.

to 145 mEq. per liter by hydration with three liters of 5 percent dextrose in water given parenterally and one-half liter of water given orally (Table I, Fig. 5). While recumbent during the night, the patient's urine became dilute and his hypernatremia (S Na (serum sodium) 155 mEq. per liter) recurred by the following morning.

Comment

Osmoreceptors in the hypothalamus are thought to control both ADH secretion and thirst.[9] Our patient's "osmoreceptor area" was presumably damaged during surgery. Subsequently, he appears to have relied on volume receptor stimulation, without normal osmoreceptor input, to regulate urine tonicity.

These volume receptors are probably located in the left atrium, aortic arch, and carotid sinus.[12] They respond to changes in blood volume or pressure by altering vagal or glossopharyngeal input to the hypothalamoneurohypophyseal tract. In 1945, Brun, Krudsen, and Raaschou[13] found that upright posture decreased urine flow, and that when the plasma of the subject tilted upright was transfused into a control subject, antidiuresis was produced. This anti-

TABLE III. Hemodynamic correlates of orthostasis*

Correlates	Recumbent	75 Degree Tilt
Blood pressure	98-112/70-74 mm. Hg	92-108/62-80 mm. Hg
V̇	2.6 ml. per minute	1.02 ml. per minute
C_{IN}	69 to 77 ml. per minute	67 to 87 ml. per minute
C_{PAH}	329 to 341 ml. per minute	299 to 416 ml. per minute
UNaV̇	179 to 205 milliequivalents per minute	69 to 81 milliequivalents per minute
Uosm	323 to 340 mOsm per kilogram	495 to 625 mOsm per kilogram
T_cH_2O ($-C_{H_2O}$)	0.35 to 0.55 ml. per minute	0.83 to 1.2 ml. per minute

* C_{IN} = clearance of inulin; C_{PAH} = clearance of PAH; UNaV̇ = urinary minute sodium excretion.

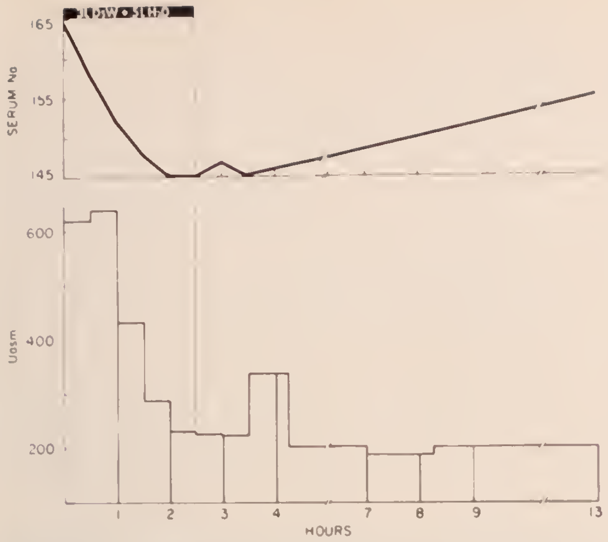

FIGURE 5. Recurrence of hypernatremia after overnight (hours 4 to 10) passage of dilute urine while recumbent.

diuresis may be due to the decreased "stretch" of the intrathoracic volume receptors, due to pooling of approximately 10 percent of the total blood volume in the legs with upright posture. Volume loading prevents this upright antidiuresis in normal subjects, but failed to do so in our patient even after massive volume loading (Figs. 2 and 3).[10]

As in our patient, many EH patients exhibit delayed excretion of a water load.[14-19] Some of them probably lack functional osmoreceptors and, therefore, rely on volume receptor inhibition to produce a water diuresis. Since volume receptors are less sensitive than osmoreceptors in triggering ADH release, a greater volume challenge is necesary to excrete a water load.[20] Chronic water loading, which may provide this extra volume, resulted in normalization of water excretion in two EH patients and resulted in improvement in free water excretion in our patient (Fig. 2).[15,16]

Suppression of ADH via volume receptor responses in the absence of normal osmoreceptor stimulation may explain the production of a dilute urine after hypertonic saline infusion in our patient and three other reported cases.[2,15,21] Our data point to a decrease in ADH activity following hypertonic saline. A similar result was found in a recent report, where, in a patient with EH, elevation of serum osmolality by as much as 25 percent with hypertonic saline was associated with a decrease in measured PAVP (plasma arginine vasopressin) levels.[3]

Volume receptor responses contribute to the reversed diurnal pattern of water excretion seen in our patient. Normally, the larger urine volume of lower osmolality that is produced in the daytime than at night is due in part to greater ADH production and lower solute excretion at night than in the daytime.[11] In our patient, ADH production appeared to be primarily under volume receptor control and, thus, with nocturnal recumbency, he produced a dilute urine. The recurrence of hypernatremia after nocturnal recumbency in our patient (Fig. 5) occurred in another EH patient,[22] and may be pathogenic in this syndrome since many of these patients have muscle weakness which may foster recumbency.[3,14,16-18,23,24] A "spot" early morning dilute urine may provide a clue to the presence of a reversed diurnal pattern of water excretion and volume receptor control of serum sodium.

In our patient, increased urine osmolality with upright posture is not due to decreased renal plasma flow or GFR. The presumed mechanism is increased ADH production with upright posture, since, with upright posture, the patient consistently demonstrated a negative free-water clearance (TcH_2O), and demonstrated, by free water calculations, that upright posture caused an increased release of ADH. Several recent studies refute this finding since upright posture failed to increase PAVP levels in normal subjects.[10,25-27] These studies and the failure of an alcohol administration (which normally suppresses ADH release) to prevent the orthostatic antidiuresis in our patient are consistent with the hypothesis that other factors besides ADH may be involved in orthostatic antidiuresis (Fig. 2).

Over the past 10 years, separate trials of chlorpropramide and hydrochlorothiazide were unsuccessful in avoiding episodes of recurrent hypernatremia in contrast to another patient with EH.[28] Currently, the patient has maintained normal serum sodium for more than three years while on a regimen of 4 L. of fluid daily. Prescribed "chronic" water loading prevents him from becoming dehydrated due to his absence of thirst. It may also decrease his dependence on volume receptors to maintain normal serum sodium.

Summary

Following surgical repair of a ruptured Berry aneurysm, a patient developed absence of thirst and episodes of hypernatremia which could not be explained by fluid deficits alone, that is EH (essential hypernatremia). He also manifested depressed osmoreceptor responses to hyper- and hypotonicity but intact ADH responses to volume receptor stimulation. These intact volume receptor responses resulted in the following observations: (1) a concentrated urine was produced after volume deprivation (dehydration), but not osmotic stimulation (hypertonic saline); (2) hypertonic saline (volume inhibition of ADH) resulted in a water diuresis while a water load (osmotic inhibition) failed to do so; (3) upright posture (volume receptor stimulation of ADH) consistently resulted in a concentrated urine; and (4) recumbent posture at night (volume inhibition of ADH) resulted in production of a dilute urine at night instead of the expected concentrated urine (that is, reversal of the normal diurnal pattern of water excretion).

An early morning dilute "spot" urine may provide a clue to the presence of intact volume receptor responses in a patient with unexplained hypernatremia (EH).

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Splenorrhaphy

Successful application in prematurity

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This report presents the successful repair of a ruptured spleen in a normal, premature infant. Analysis of this patient and review of other neonatal splenic injuries were undertaken to highlight those factors leading to a favorable outcome. Although recognition of this condition is difficult because of initially vague symptoms, early diagnosis is important for success. Once surgery has been performed, every effort should be made to repair and preserve the organ. This case review draws attention to the appropriate management of an unusual condition.

Case report

A 1,350-Gm. male infant was born to a gravida 2, para 1-0-0-1, 35-year-old female. The gestation age was reported as 32 weeks, and the pregnancy was uneventful until membranes ruptured 24 hours prior to delivery. The birth was a seemingly uncomplicated vaginal delivery assisted briefly with low forceps. Apgar scores were 5 and 8.

Following delivery, the child's course was initially unremarkable. Because of mild tachypnea the child received oxygen for about six hours and then breathed satisfactorily with room air. Physical examination confirmed the gestational age at 32 weeks. The child did well, voiding and passing normal meconium.

The first abnormal finding appeared at 24 hours of age when a routine hematocrit was found to be 43, as compared with 56 at birth; this was repeated four hours later and found to have decreased further to 29. At this time the child seemed pale but was otherwise normal. Transfusion was begun, but repeat hematocrit following transfusion had fallen to 23.

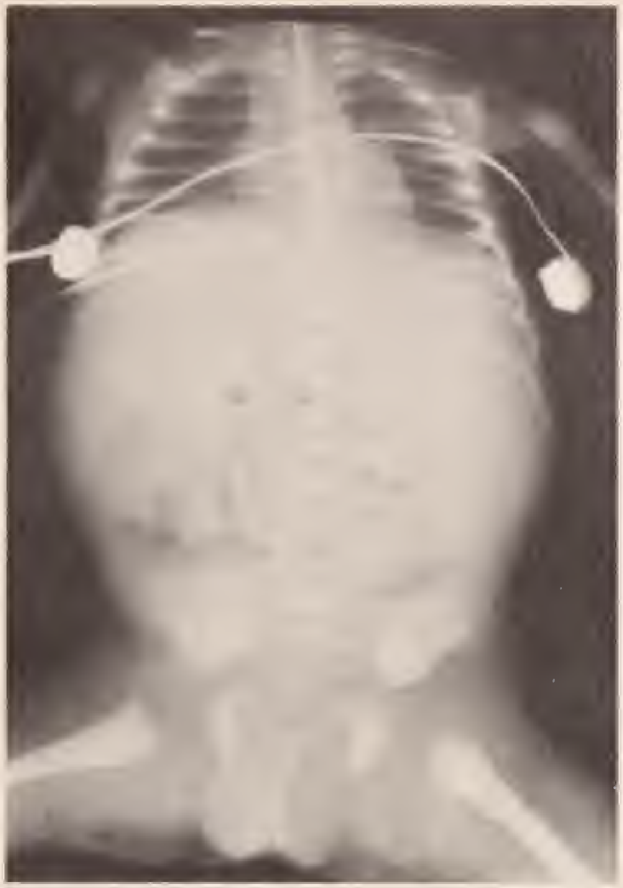

FIGURE 1. Abdominal flat plate. Presence of intraperitoneal fluid and deviation of nasogastric tube evident.

Surgical consultation was then requested. At that time the positive findings were a distended abdomen with a falling hematocrit. There were no signs of external blood loss, and abdominal flat-plate evidence suggested intraperitoneal fluid (Fig. 1). A laparotomy was therefore promptly scheduled, with the preoperative diagnosis of blood loss of undetermined cause.

At operation, there were 100 cc. of blood and clots in the abdomen. The bleeding was coming from a 1.5-cm. fracture of the medial surface of the spleen and an adjacent 2-cm. area of disrupted splenic capsule. An incidental finding was an area of ecchymosis in the free edge of the left hepatic lobe. Bleeding was controlled with a synthetic suture ligature material (4-0 Dexon) around the fracture and through the splenic tissue. Some venous bleeding at the margin of the capsular tear was stopped by applying surgical clips. The remaining hemostasis over the bare area of the spleen was achieved by topical microfibrillar collagen hemostat (Avitene) and pressure.

Following operation, there were no further signs of intra-abdominal bleeding. The postoperative hematocrit was 31, and following transfusion rose to 38, where it remained. The platelet count at first was 60,000 but spontaneously rose to 160,000 by the first postoperative day. The child remained in the hospital for 35 days, by which time he weighed 2 kg. and was then discharged. At the time of his one-month outpatient visit, he was doing well.

Comment

Neonatal splenic rupture is an uncommon event. There is no clear explanation of why this normal spleen ruptured following a seemingly uneventful delivery. The spleen, enlarged by congenital syphilis,[1] or erythroblastosis fetalis,[2] may be more vulnerable to birth trauma. Difficult breech presentations[3] and very large babies[4] have also been associated with neonatal splenic injury. It has been postulated that a normal spleen can suffer a capsular tear due to pressure changes during delivery, especially at points of suspension.[1] However, this explanation is unsatisfactory in this case of a small premature infant. The presence of the hepatic ecchymosis suggests that direct abdominal trauma in the neonatal period caused this problem. This highlights the extreme vulnerability of this group of patients.

Early diagnosis of neonatal ruptured spleen may be difficult. In the newborn, the early signs and symptoms of intra-abdominal bleeding are vague.[3,5] Serial hematocrit levels, investigation of other sources of blood loss, and blood replacement are important parts of the diagnostic and therapeutic regimen. Unexplained anemia, abdominal distention, and x-ray evidence of intraperitoneal fluid suggest the diagnosis.[3] When doubt exists, paracentesis can be a valuable aid.[6] Once intra-abdominal bleeding is confirmed, visceral injury must be surgically treated. Successful therapy requires prompt diagnosis and surgery.

The techniques of splenic repair are well established.[7–9] A recent review by Buntain and Lynn[9] emphasized the need for complete mobilization of the spleen followed by mattress sutures placed through the organ to deal with injury to the pulp. Capsular tears can be handled by topical anticoagulants and pressure. These techniques have resulted in a high salvage rate with apparently little danger of failure of hemostasis. Our only modification in the neonate is to rely on hemostatic rather than mattress sutures because of the absence of omentum to help buttress the repair. The previous reports of neonatal splenorrhaphy also attest to the safety of this approach for treatment of ruptured spleen in the newborn period.[6,8]

The risk of serious and fatal infections in splenectomized children has been well documented.[5,9,10] This risk is increased in the group of children in their first four years of life who underwent splenectomy.[10] It is, therefore, clear that the injured spleen in the neonate deserves extra efforts at preservation. This case demonstrates the safety of a reparative approach to the problem of neonatal splenic injury.

Summary

This case of successful splenorrhaphy in a normal premature infant represents the smallest reported survivor of splenic repair. The evidence for post-splenectomy sepsis has resulted in increasing attention to the preservation of splenic tissue in injured children. The problem of neonatal splenic injury is reviewed, along with a highlight of specific technical factors resulting in this favorable outcome.

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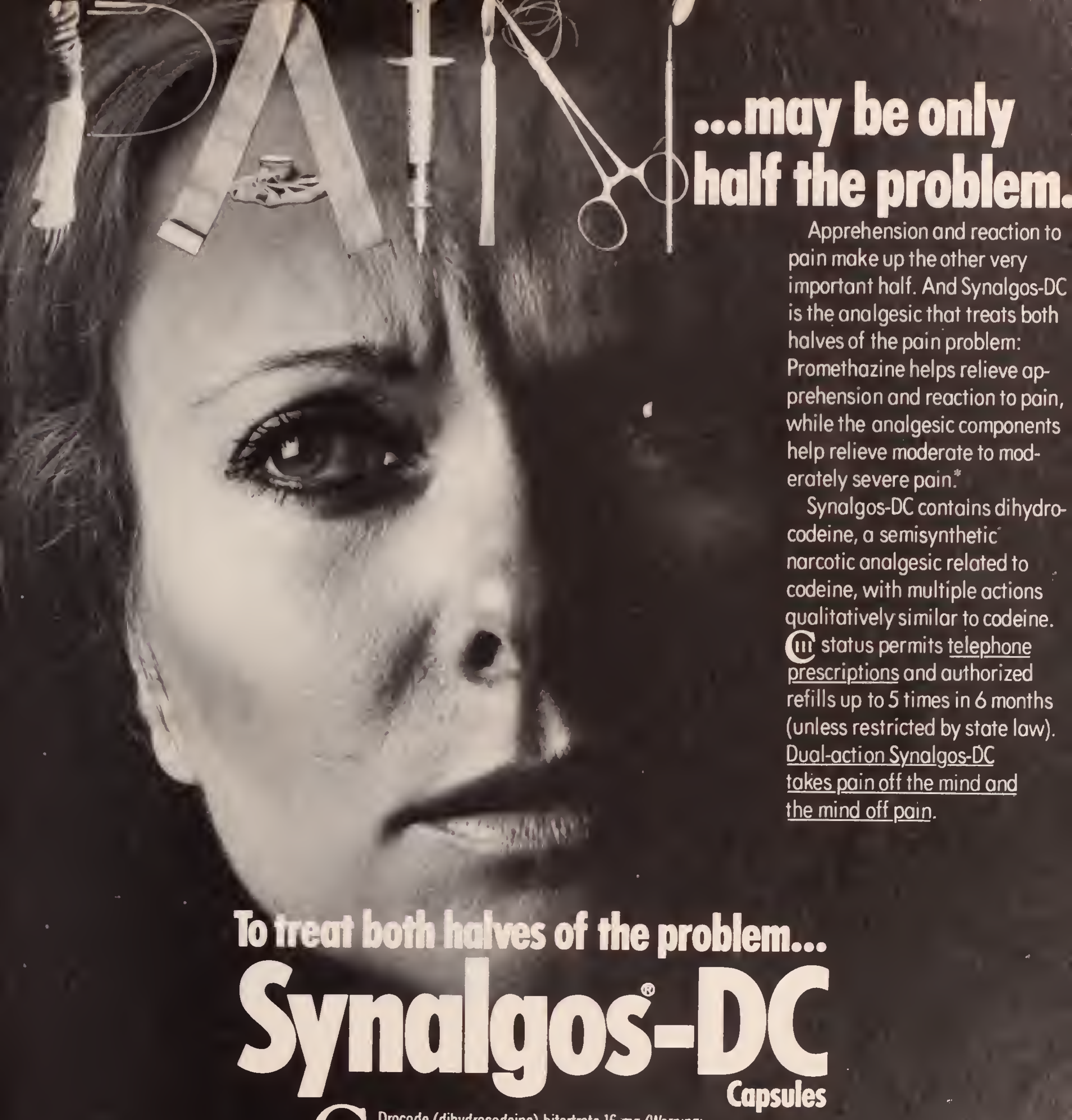

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ADVERSE REACTIONS: The most frequently observed reactions include light-headedness, dizziness, drowsiness, sedation, nausea, vomiting, constipation, pruritus, skin reactions, and rarely, hypotension.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. Synalgos-DC is given orally. The usual adult dose is two capsules every 4 hours as needed for pain.

DRUG INTERACTIONS: The CNS depressant effects of Synalgos-DC may be additive with that of other CNS depressants.

See Warnings.

Aspirin may enhance the effects of anticoagulants and inhibit the uricosuric effects of uricosuric agents.

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Pelvic Cecum

Cause of signs and symptoms

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The most common minor developmental anomaly of the colon is the presence of the cecum in the pelvis (hyperdescent of the cecum, low cecum, or pelvic cecum),[1] thought to result when the descent of the ascending colon and cecum carries the tip of the latter structure well below the iliac fossa. It is thought that the presence of the cecum in the pelvis is the result of true overgrowth and hyperdescent during fetal development, rather than splanchnoptosis. Anatomic and roentgenographic studies suggest an incidence of low cecum of 15 to 18 percent.[1-4] Kantor[1] reported that 50 percent of his cases with a pelvic cecum had a normal attachment of the colon to the abdominal wall.

Pelvic cecum is generally not considered to be clinically significant,[5] and review of the literature revealed no report of signs or symptoms related to this anomaly. This report describes the clinical and radiographic findings in two children with pelvic cecums who had recurring signs and symptoms simulating acute abdominal conditions.

Case reports

Case 1. A 12-year-old, well-developed female (weight and height 50 percentile, Tanner stage 3) was seen in the emergency room with severe abdominal pain in the right lower quadrant of 24 hours' duration. History revealed several previous episodes of lesser severity, all related to exertion, direct trauma, or constipation. The present episode was associated with constipation, nausea, and slight abdominal distention.

Physical examination revealed a moderately distended abdomen with tenderness to deep palpation in the right lower quadrant; there were no masses or rebound tenderness. Oral temperature was 98.6°F. WBC (white blood-cell) count, urinalysis (including culture), stool examination for blood, porphyrins, ova, and parasites revealed no abnormalities. Findings for serum electrolytes, glucose, BUN (blood urea nitrogen), and sedimentation rate were normal, as were results of IVP (intravenous pyelogram), upper GI (gastrointestinal) series, small-bowel studies, plain radiographs of the abdomen, and pelvic sonograms. Barium enema examination showed a fixed cecum in the right side of the pelvis (Fig. 1A). There was no obstruction to the flow of barium or any evidence of volvulus. The pain and tenderness

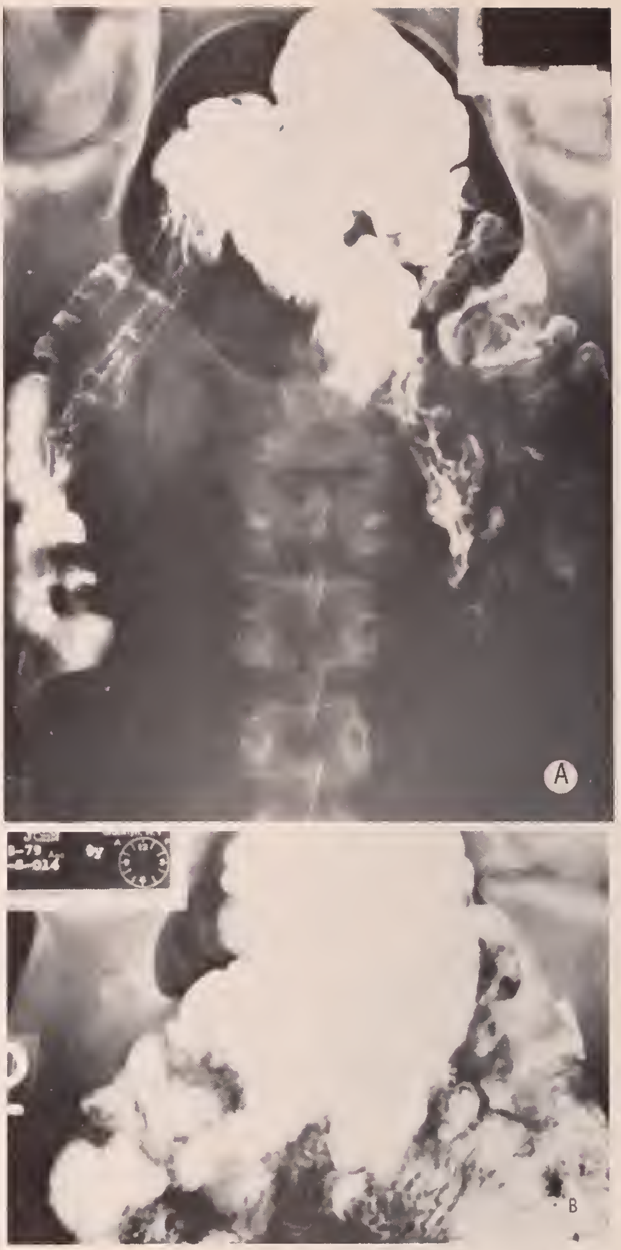

FIGURE 1. Radiographs illustrating fixed pelvic cecums, causing abdominal pain in right lower quadrant. (A) Case 1. (B) Case 2.

subsided with bed rest, IV (intravenous) fluids, and oral spasmolytics. Following discharge, the patient continued to experience episodes of right lower quadrant pain, usually following exercise or periods of constipation.

Case 2. A nine-year-old, well-developed male (weight and height 60 percentile, Tanner stage 1) was hospitalized with severe right lower quadrant abdominal pain of 48 hours' duration. History revealed several previous episodes of pain, always associated with exercise, accompanied by nausea and abdominal distention. Physical examination revealed a pale, afebrile child with mild abdominal distention. The abdomen was tender to deep palpation in the right lower quadrant, with moderate rebound. Laboratory studies, including WBC, urinalysis, throat, blood, stool and urine cultures, stool for occult blood, ova and parasites, serum electrolytes, blood glucose, BUN, and sedimentation rate disclosed no abnormalities. Urine examination was negative for porphyrins. Plain films of the abdomen revealed nothing remarkable, nor did the IVP and upper GI series. Barium enema revealed the cecum to be located low in the right pelvis (Fig. 1B). The patient was treated with IV fluids and bed rest, and the signs and symptoms rapidly subsided. He was discharged without symptoms, but continued to experience episodes of right lower quadrant pain following exertion.

Comment

Standard texts do not list pelvic cecum as a cause of abdominal signs and symptoms in the pediatric age group. The children described in this report had very similar clinical features: recurring episodes of right lower quadrant pain and tenderness with abdominal distention and vomiting, associated with trauma, exercise, or constipation. Physical examination, laboratory, and radiographic studies revealed no cause for the signs and symptoms, other than the presence of the cecum in the pelvis, suggesting the possibility that a pelvic cecum may be related to a clinical picture mimicking an acute abdominal condition, precipitated by trauma, exercise, or constipation.

The whole clinicopathologic picture may suggest an over-elongation syndrome occurring during the tenth week of fetal development, when the bowel is further elongated and rapidly re-enters the abdomen with the cecum fixing to the iliac crest.[6]

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Bernard-Horner Syndrome

Associated with Swan-Ganz catheter

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Since its introduction in 1970 by Swan and Ganz, pulmonary artery catheterization for hemodynamic monitoring has become an acceptable technique in a variety of pathologic states.[1,2] Its use has proliferated in intensive care units across the country not only because the derived physiologic measurements are reproducible and consistent, but also because the technique of insertion is relatively easy. However, a variety of complications have been described with the use of Swan-Ganz catheters.[3] We report a new association in the case described here.

Case report

A 73-year-old white male was admitted to the intensive care unit of Kings County Hospital for gram-negative urosepsis and shock. He had previously been in good health with the exception of benign prostatic hypertrophy requiring elective admission for a transurethral resection of the prostate. He did well during and after surgery and was preparing for discharge when he was found to be hypotensive, BP (blood pressure) 90/60, and confused. Physical examination showed an obtunded elderly male in acute distress. Chest was clear, and heart sounds within normal limits. Neurologic examination showed no focal signs, and there was no evidence of hemorrhage. At the time of transfer, his complete blood count showed white blood cells of 20,000; polymorphonuclear leukocytes 85, lymphocytes 10, mycoplasma 3, and eosinophils 2 percent; hematocrit 36; hemoglobin 12.8. Electrolytes were within normal limits; glucose 130 mg. per 100 ml., serum glutamic oxaloacetic transaminase 97, alkaline phosphatase 155, total bilirubin 2.3, indirect bilirubin 1.7, lactic acid dehydrogenase 458. Blood cultures were drawn. A lumbar puncture was performed: glucose was 87 mg. and protein 20 mg. per 100 ml. No cells or microorganisms were seen. He initially was treated with fluids and plasma protein fraction, human (Plasmanate) for presumed shock secondary to sepsis. Because the patient continued to do poorly (BP remained 90/60) and the fluid status remained unclear despite 2 L. of normal saline and 6 units of plasma protein fraction, human, a Swan-Ganz catheter was aseptically placed in the left internal jugular vein. Except for a small hematoma, the procedure was uncomplicated. Initial pulmonary capillary wedge pressure was 8 d., and so fluids were continued until the pressure rose to 15 d. The BP also rose to 100/70 and the patient's sensorium improved. It was noted later that morning (six hours after the catheter was placed) that the patient had a ptosis on the left side, miosis, anhidrosis, and relative enophthalmos consistent with Horner-Bernard syndrome, which was not present before the catheterization. Work-up for possible etiologic factors included a review of the chest x-ray film, medical records, and physical examination. It was concluded that the Horner-Bernard syndrome was secondary to the catheter placement. The patient had a stormy course (three to six cultures were bacteria-positive for enterococci complicated by an abdominal abscess requiring laparotomy), but two months thereafter he was discharged as improved. At the time of discharge, the ptosis was still present on the left side, but the other signs of the Horner-Bernard syndrome had disappeared.

A variety of complications have been associated with balloon-tipped, flow-directed pulmonary catheters. Review of the literature revealed the following documented complications: subclavian and internal jugular thrombosis,[4,5] cardiac arrest,[6] ruptured chords of the tricuspid valve,[7] intracardiac entanglement of the catheter,[8,9] refractory atrial arrhythmias,[10] infection, especially endocarditis,[11–13] pulmonary artery-bronchial fistula,[14] hemoptysis,[15] fatal pulmonary hemorrhage (septic and aseptic),[16] systolic click,[17] complete and right bundle branch block,[18] pulmonary insufficiency,[19] hydrothorax,[20] balloon rupture,[21] pulmonary embolism or infarction,[5,22] right atrial perforation,[2,3] pulmonary artery perforation with infarction,[23] pulmonary artery thrombosis with infarction,[24,25] and embolism,[2,3] and carotid artery cannulation.[26]

Horner-Bernard syndrome (miosis, ptosis, anhidrosis, and relative enophthalmos) has not previously been described as a complication of Swan-Ganz catheter placement through the internal jugular vein; it has been associated with carotid artery disease,[27] carotid artery catheterization in man and animals,[28,29] internal jugular cannulation in anesthesia,[30] and the percutaneous cervical injection of heroin.[31] The internal jugular, carotid artery, and sympathetic plexus intimately share a common anatomic sheath through close proximity. The secondary postganglionic fibers, derived from the eight cervical vertebra to the second thoracic vertebra

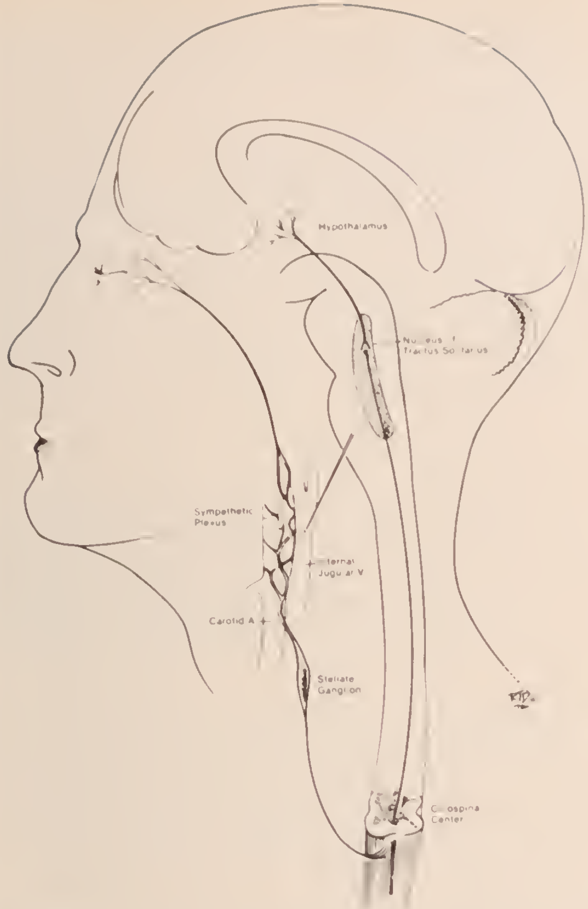

FIGURE 1. Primary sympathetic fibers arising from hypothalamus synapse in nucleus tractus solitarius. Secondary postganglionic fibers pass up through lower cervical ganglia to synapse for second time in superior cervical or stellate ganglion. Postsynaptic tertiary fibers then form complex network around carotid artery and jugular vein. Injury of this path at any point can cause Bernard-Horner syndrome.

ciliospinal center, pass up through the lower cervical ganglia to synapse for the second time in the superior cervical or stellate ganglion (Fig. 1). The tertiary fibers form a network around the carotid artery with some fibers passing around the internal jugular vein. Injury to this complex network results in the classic Horner-Bernard syndrome.

In the case presented here, the passage of the catheter in the usual manner, behind the posterior belly of the sternocleidomastoid at the junction of the external jugular vein, probably resulted in direct destruction of the sympathetic plexus or moderate hematoma formation with secondary compression. The second explanation is more likely, since the Horner-Bernard syndrome appeared to have improved at discharge.

Summary

A case is presented of the Horner-Bernard syndrome complicating the passage of a Swan-Ganz catheter through the internal jugular vein, although the syndrome has followed carotid artery and internal jugular vein cannulation for other purposes. The complication has not previously been associated with pulmonary artery catheterization. The occurrence of this syndrome in association with the passage of a Swan-Ganz catheter should be added to the list of potential complications with balloon-tipped, free-floating pulmonary catheters.

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Parents not to blame for child's learning disabilities

Don't blame the parents for the child's learning disabilities, declares a communication in the October 10 Journal of the American Medical Association.

The insinuation that learning disabilities develop when preventive parenting has failed is an outdated concept representing a holdover from the tendency to blame all childhood difficulties on something parents have done wrong, says Harold B. Levy, M.D., of Shreveport, La.

Learning-disabled children lack the necessary skills and talents required to handle with ease the reading and writing tasks required for success in the regular classroom, Dr. Levy points out.

Parents can and should furnish their children with a warm, stable home environment with ample language experiences and enrichment, but they can no more prevent learning disabilities than they can prevent tone deafness or clumsiness, he says.

Says Dr. Levy:

"Schools do not punish children who lack musical or athletic talent, but those who lack language talent are soon crushed by the rigid system of classroom competition.

Knowledgeable physicians can do much to relieve parents of unnecessary guilt and help direct their emotional energies into more constructive channels to help their children."

Boys outnumber girls six to one among learning-disabled children, he says. Often there is a family history of similar problems. And proper administration of medications will often produce a dramatic response through improved self-control.

"Every learning-disabled child does not end up in a correctional institution, and we cannot eliminate crime by simply teaching better reading. But the improvement noted from the combination of early medical intervention, individualized special educational measures, and awareness demands greater concern on the part of enlightened medical professionals."

Pseudoaneurysm of Aortic Stump

Rupture in pregnancy

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Abdominal aortic aneurysm is an infrequent complication of the aorta, less common in blacks than in whites.[1] Men are affected more frequently than are women, in a ratio of 10 to 2.[2] It is a disease of the sixth or seventh decade and is frequently the result of aortic arteriosclerosis. Although the association between dissecting aneurysms of the aorta and pregnancy has been recognized and described, abdominal aneurysms in the reproductive age group are rare.[3–5] The use of nonbiologic grafts in abdominal aneurysms has improved the prognosis of affected patients. However, early and late complications of prosthetic grafts do occur, although rarely with improved techniques.[6] A case of rupture of a pseudoaneurysm of the aortic stump in pregnancy with an aortojejunal fistula two years with aneurysmectomy is presented.

Case report

A 29-year-old black woman, gravida 2, para 0, abortus 1, with no history of diabetes or hypercholesterolemia, was first admitted to Harlem Hospital on October 7, 1976, with a history of severe back pain and abdominal pulsatile mass suggestive of an abdominal aneurysm with impending leak. An aortogram showed an abdominal aneurysm measuring approximately 15 cm. by 18 cm. below the level of the renal arteries. The patient had a resection of an abdominal aortic aneurysm with a bifurcation Dacron graft replacement; she was discharged, improved, on October 29, 1976. The patient was readmitted November 19, 1977, with abdominal and back pain for several days. An aortogram performed on admission showed recurrent abdominal aneurysm, for which she had an exploratory laparotomy. Operative findings included a 6 cm. by 10 cm. infected pseudoaneurysm at the previous Dacron graft site (Fig. 1A). Resection of the aortic graft and pseudoaneurysm and bilateral axillofemoral bypass using a Dacron graft was performed (Fig. 1B). The patient was discharged as well.

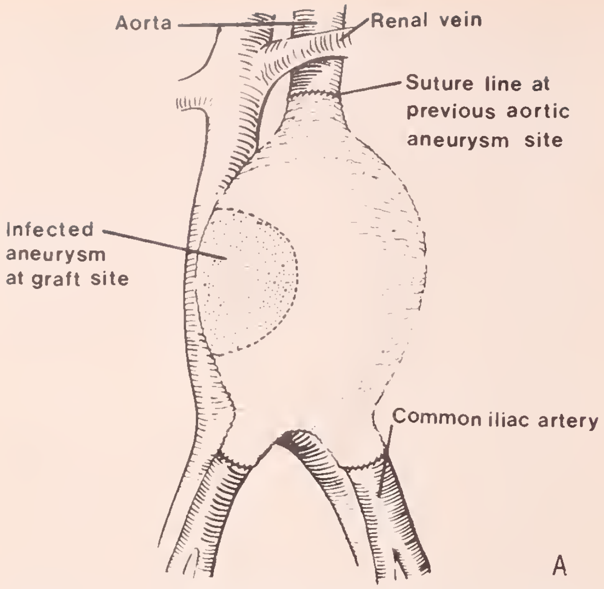
She was not seen until June 20, 1978, when she registered at the prenatal clinic with her current pregnancy; her last menstrual period was given as March 9, 1978. She had no specific complaints at her initial visit. The fundus was unremarkable and compatible with a 12-week gestation. The patient was requested to return in one month. However, she did not return until September 30, 1978, when she was admitted to the obstetric service because of diffuse abdominal pain, vomiting blood-stained material, and rectal bleeding for approximately one week. The fundus was compatible with a 24-week gestation. Fetal heart tones were not noted. Speculum examination revealed no vaginal bleeding. The cervical os was closed and grossly normal and uneffaced. A rectal examination, however, recovered dark red blood on the examining finger.

Gastroscopy performed on admission revealed a bleeding area distal to the second portion of the duodenum. An aortoduodenal fistula was suspected, and an exploratory laparotomy was performed. A pseudoaneurysm of the aortic stump with an aortojejunal fistula 6 inches from the ligament of Treitz was detected (Fig. 1C). Resection of an aortojejunal fistula, jejunojejunal anastomosis, and evacuation of a pseudoaneurysm of the aortic stump were performed. The patient developed cardiorespiratory arrest during the abdominal closure. In spite of resuscitative procedures, the patient died. The case was reported to the medical examiner.

Comment

Splenic artery aneurysms in the reproductive age group are not infrequent.[7–10] They occur twice as frequently in women as in men; approximately 20 to 25 percent of splenic artery aneurysm rupture occur in pregnancy. Abdominal aortic aneurysms in pregnancy, and complications associated with their repair, are rare. Probably this is because of the hypocholesterolemic effects of estrogens, which in turn induce a rapid turnover of aortic acid mucopolysaccharides and prevent atherosclerosis. A review of the English literature reveals two recent cases.[11,12]

One case involved a 25-year-old woman, para 4, who had had pain around the umbilicus and back for one year. On examination, a pulsating abdominal mass, 8-cm. long, was disclosed. Lumbar aortogra-


Aorta
Renal vein
Suture line at previous aortic aneurysm site
Infected aneurysm at graft site
Common iliac artery
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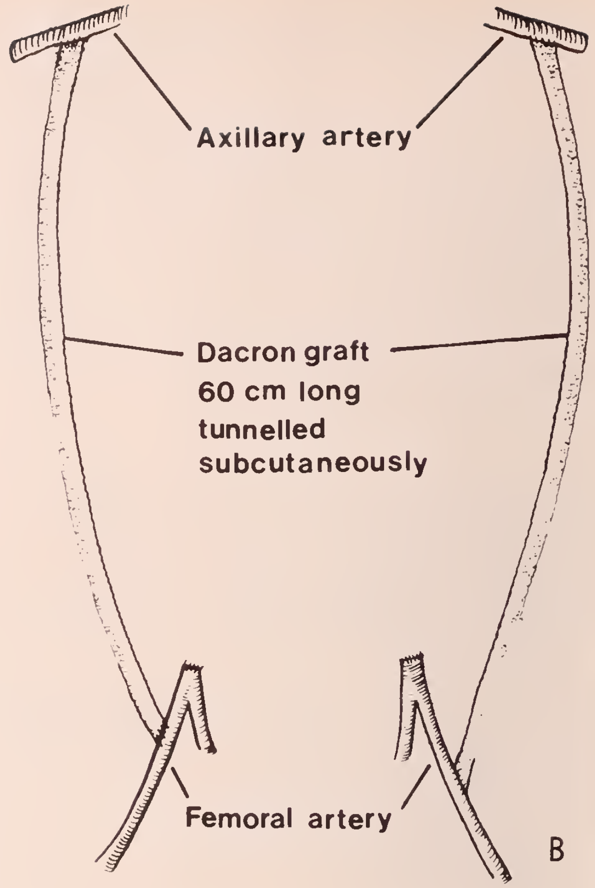

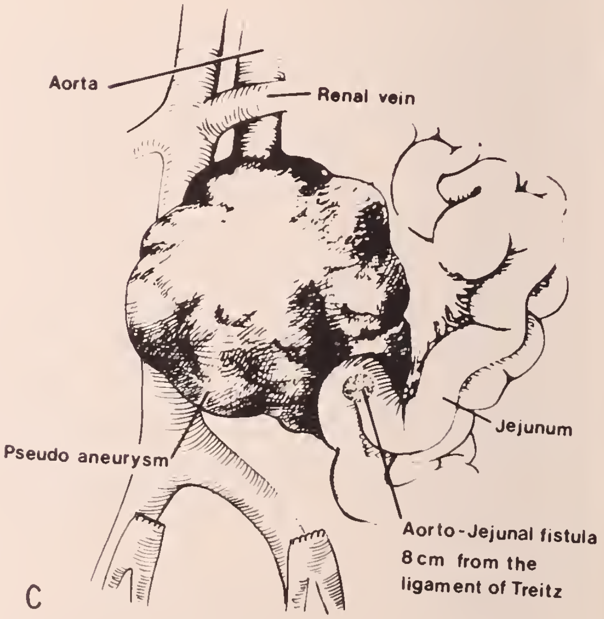

FIGURE 1. (A) Pseudoaneurysm of Dacron graft with infected area. (B) Bilateral axillofemoral bypass. (C) Pseudoaneurysm of aortic stump and aortojejunal fistula.

phy revealed an aneurysm of the distal aorta below the renal arteries. The uterus was enlarged to the size of 14 weeks' gestation. A hysterotomy and aneurysmectomy were performed. The distal aorta was replaced by Dacron bifurcation graft with the distal limbs of the graft involving both common iliac arteries in an end-to-end anastomosis. The patient was discharged as well, and a year later was readmitted with a 32-weeks' pregnancy, in labor. A cesarean section, delivering a 2,250-Gm. male, living infant was carried out uneventfully. The graft was intact, and the patient was discharged from the hospital as well.[11]

The other case was that of a 40-year-old woman, para 14, 40 weeks' gestation, who was readmitted on the seventh postpartum day owing to abdominal pain and weakness. Examination revealed a tender abdominal mass in the left lower quadrant. A few hours following admission, the patient collapsed and went into shock. An exploratory laparatomy revealed a retroperitoneal hematoma associated with a ruptured aortic aneurysm below the renal arteries involving both common iliac arteries. A Dacron bifurcation graft was anastomosed successfully to the aorta, and the common iliac arteries distally. The patient was discharged as improved.[12]

Any patient with a prosthetic graft of an abdominal aorta who has abdominal pain especially associated with hematemesis should be suspected of having a graft complication. Hematemesis is often associated with gastrointestinal bleeding above the ligament of Treitz, unless the bleeding is associated with an aortojejunal fistula, as in our case. Abdominal aneurysm is associated with a high mortality rate; in recent years, this has decreased because of early diagnosis and aggressive surgical management often involving the use of nonbiologic grafts. Whether or not pregnancy produces changes in the aortic aneurysm or Dacron graft to contraindicate pregnancy following aneurysmectomy is a subject of debate. Manalo-Estrella and Barker[13] compared the histologic features of the aorta in pregnant and nonpregnant patients. The following observations were made on the aorta of pregnant women: (1) fragmentation and disruption of elastic and reticulum fibers of the media, (2) hypertrophy and hyperplasia of smooth muscle fibers of the media, and (3) decrease in interstitial acid mucopolysaccharides as pregnancy continues. Similar changes were found in experimental animals by Danforth, Manalo-Estrella, and Buckingham.[14] Cavanzo and Taylor[15] examined sections of aortas of pregnant and nonpregnant patients and failed to show consistent histologic changes between the two groups. The pattern of alteration of elastic and reticulum fibers and acid mucopolysaccharides varied considerably in all groups. The question raised is whether or not circulatory changes of pregnancy increase the risk of graft failure. Hypervolemia, increased cardiac output, and heart rate and pregnancy-induced hypertension occurring so commonly in pregnancy may singly or in combination be responsible for complications associated with abdominal aortic prosthesis. Increments in cardiac output and blood volume are compensated for by diminished uteroplacental vascular resistance. The presence of an aortic prosthetic graft is not necessarily a contraindication to pregnancy; Manotaya and Monothaya's patient[11] delivered successfully. Patients with aortic prosthesis, or previous history of aneurysmectomy, however, should be followed in an obstetric high-risk clinic by a team knowledgeable about early and late complications of aortic grafts. Plain x-ray film evidence of the abdomen may be unrevealing.[16] Radionuclide flow studies and contrast aortography commonly used in the nonpregnant state to confirm a diagnosis of aortic aneurysm and complications of grafts are contraindicated in pregnancy. Ultrasonography is an ideal method to diagnose complications related to aortic prosthetic grafts. The normal abdominal aorta appears as a long echo-free area from the xiphoid process to the bifurcation near the level of the umbilicus. The aorta is considered abnormal if its diameter is more than 30 mm. or if its normal size increases toward its bifurcation. It is often possible to visualize the lumen, thrombus, and graft integrity on ultrasonography;[17] contrast aortography permits only visualization of the aortic lumen which may be of normal size in the presence of the thrombus.

Since pregnancy does not seem to have a specific effect on aortic grafts, the management of these patients except for closer observation is the same as for patients without abdominal grafts. Careful observation of blood pressure with attention to relative increase will alert the physician to the development of pregnancy-induced hypertension, which may contribute to fetal and maternal complications. If blood pressure progressively increases, early bed rest and early hospitalization are encouraged.

Summary

A case of rupture of pseudoaneurysm of an abdominal aortic stump in pregnancy has been presented. At exploration, the patient was found to have an aortojejunal fistula 6 in from the ligament of Treitz and a pseudoaneurysm of the aortic stump. Two years previously the patient had been admitted with abdominal aortic aneurysm for which an aneurysmectomy and Dacron bifurcation graft replacement was performed. Approximately one year later the patient developed an infected pseudoaneurysm of the Dacron graft. Resection of the Dacron graft and aneurysm and bilateral axillofemoral bypass were performed. The patient subsequently became pregnant, and at 24 weeks' gestation developed an aortojejunal fistula for which she had exploratory surgery but suffered a cardiopulmonary arrest and died.

Since pregnancy does not seem to have a specific effect on the aortic graft or aortic stump, the management of these patients, except for closer observation, is the same as for patients without an abdominal aneurysm. Ultrasonography is preferable to aortography in pregnancy to diagnose aortic aneurysms and complications related to aortic grafts. There are no data to recommend elective abortion in these patients. A cesarean section should be performed for obstetric reasons.

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Tuberculosis of Myocardium

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Tuberculosis of the myocardium is a rare disease,[1–4] the most recent published case being described by Pomerance in 1963.[2] Since the availability of antituberculous drugs for prophylaxis and therapy, the incidence of miliary tuberculosis has markedly diminished, tuberculous pericarditis has become less common, and tuberculous myocarditis has become extremely rare.[5]

We report a case of myocarditis associated with miliary tuberculosis and briefly review the literature.

Case report

A 31-year-old man presented a two-week history of cough, minimal sputum production, sore throat, fever, chills, night sweats, and vague upper abdominal pain. His father had recently died of tuberculosis. The patient admitted to considerable alcohol consumption for many years.

On physical examination, the patient was in acute respiratory distress. The respiratory and heart rates were 56 and 104 per minute, respectively, and the blood pressure was 130/70 mm. Hg. Coarse rhonchi were heard throughout both lung fields. There were no abnormalities on cardiac examination. The edge of the liver was felt 3 cm. below the right costal margin. There was acrocyanosis of hands and toes.

Laboratory data included white blood cells of 5,300 per deciliter with 74 percent polymorphonuclear leukocytes, 21 percent lymphocytes, and 5 percent eosinophils. Hemoglobin was 12 Gm. per deciliter, and hematocrit was 36. Serum glutamine oxaloacetic transaminase was 163 I.U., lactate dehydrogenase 356 I.U., alkaline phosphatase 350 I.U., and total bilirubin 1.8 mg. per deciliter. Serum electrolytes were within normal limits. Bilateral fluffy infiltrates were seen on chest x-ray film. The electrocardiogram revealed sinus tachycardia. There was no evidence of ischemia or arrhythmia. Sputum cultures for acid-fast bacilli were negative; blood and urine cultures were sterile.

The patient's hospital course was characterized by spiking temperatures up to 105°F. with a small amount of sputum production and progressive shortness of breath. Arterial blood gases showed progressive hypoxemia. The patient was treated with ampicillin. On the fifth hospital day, the patient had a respiratory arrest and died.

At autopsy, the patient had widespread tuberculosis. The oldest tuberculous lesions were in the mediastinal lymph nodes: one small paratracheal lymph node showed fibrosis with liquefying caseation and proliferative tuberculosis; several hilar lymph nodes showed old collagen and residual caseous tuberculosis. Miliary dissemination was seen in the lungs, liver, spleen, kidney, adrenal, and bone marrow. In many areas, particularly in the lungs, liver, and kidneys, groups of tubercles were already partly fibrosed. There was a tendency to invade the walls of the coronary vessels. Tubercles were also seen in the walls of the small pulmonary arteries and veins, and in the wall of the main pulmonary veins.

There was extensive diffuse interstitial myocarditis. The inflammatory infiltrate was predominantly Anitschkow cells, lymphocytes, and a few polymorphonuclear cells (Fig. 1). Occasionally, a multinucleated cell, representing a fusion of several Anitschkow cells, was seen. There was also necrosis of myocardial fibers adjacent to, and included in the interstitial inflammatory infiltrate (Fig. 2).

These findings were seen on numerous random sections of the ventricular myocardium and, to a lesser extent, in the auricles adjacent to the epicardial fat and in the area adjacent to the endocardial lining of the left ventricle. The heart valves were not involved. A lymphocytic infiltrate was present in the epicardial fat.

Comment

Since most tuberculous infections involve the lungs, one might expect myocardial tuberculosis to occur frequently. However, myocardial tuberculosis is quite rare, its incidence varying between .07 and .64 percent among all postmortem examinations, and .44 percent among tuberculosis-proved autopsy cases.[3,6]

Age and the severity of illness seem to play an important role. The incidence of tuberculous myocarditis is highest in children and young adults.[3,4] Clinically, the patients appear severely ill, with active pulmonary or miliary tuberculosis ultimately detected elsewhere in the body. In most cases, the

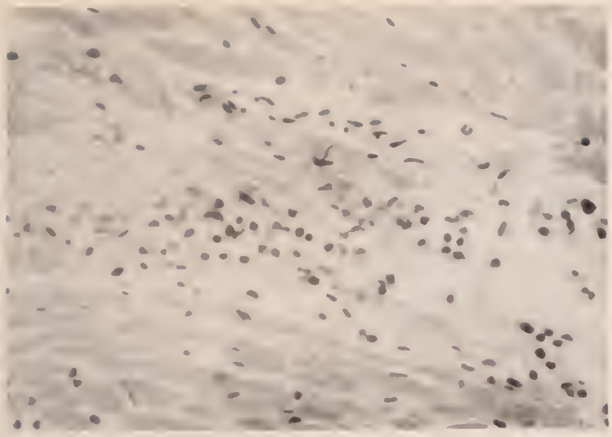

FIGURE 1. Interstitial myocarditis. Large number of Anitschkow cells, occasional lymphocytes, and occasional polymorphonuclear leukocytes (hematoxylin and eosin stain).

myocardial tuberculosis is part of a fatal tuberculous process.[2]

The distribution of tuberculous lesions within the myocardium is well characterized. The atria are the chief sites of tuberculous myocardial involvement. The ventricles are less commonly involved.[1,3,7,8]

The manner in which tuberculosis reaches the myocardium depends on the site of the primary lesion, and the route of spread to the heart, whether by direct entry from mediastinal glands or by lymphatic or hematogenous spread.[1]

The major pathologic types of myocardial tuberculosis include nodular, miliary, diffuse infiltrative, and nonspecific interstitial myocarditis. The interstitial type of tuberculous myocarditis consists mainly of cellular hyperplasia. Microscopically, there is usually an interstitial deposition of connective tissue with round cells, granulation tissue, and giant cells. Findings on stains for acid fast bacilli are often negative. This type of histologic pattern, and the presence of tuberculosis found elsewhere in the body, provides sufficient evidence to make the diagnosis of tuberculosis of the myocardium.[1]

The clinical diagnosis of tuberculosis of the myocardium is very difficult to establish.[6] Usually no symptoms or signs of cardiac disease are manifest. The presence of cardiac abnormalities is frequently overlooked.[1,6,7]

When cardiac manifestations are seen, they usually consist of ectopic arrhythmia and/or congestive heart failure. The specific types of ectopic arrhythmia include atrial extrasystoles, paroxysmal atria tachycardia, and paroxysmal ventricular tachycardia.[7,9] If extensive damage of the myocardium occurs, tuberculous myocarditis may cause significant cardiac insufficiency and congestive heart failure.

In most instances, the diagnosis of tuberculosis of the myocardium is made on postmortem examination. Occasionally, however, it may be suspected clinically if an arrhythmia or congestive heart failure is found in a patient with active tuberculosis elsewhere in the body.

Our patient was a severely ill young adult who presented acute respiratory failure and a rapid demise. There was no overt clinical or electrocardiographic evidence of arrhythmias, congestive heart failure, or ischemia, to suggest any myocardial disease. Pathologically, however, there was evidence of diffuse hematogenous miliary tuberculosis involving the lungs, liver, spleen, hilar and paratracheal lymph nodes, kidneys, adrenal glands, and bone marrow. The heart showed a diffuse interstitial myocarditis without evidence of tuberculous nodules, caseation, granulation tissue, or acid fast bacilli. There was no evidence of pericardial or valvular endocardial involvement. Based on the combination of this nonspecific myocardial histologic pattern in association with active tuberculosis found elsewhere in the body, our case is highly suggestive of the most rare form of tuberculous myocarditis.

In conclusion, tuberculosis of the myocardium is an extremely rare disease. It usually occurs in association with active tuberculous involvement of other organs. Most often, children and young adults are affected, presenting clinically with severe illness.

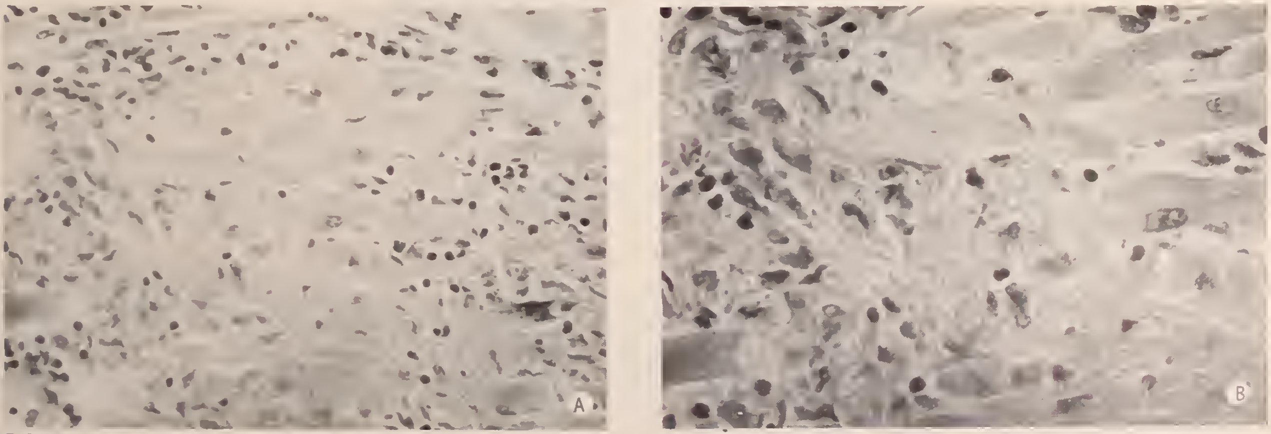

FIGURE 2. Necrosis of several myocardial fibers merging with interstitial inflammatory infiltrate. (A) Lower magnification. (B) Higher magnification. (Hematoxylin and Eosin Stain).

The major site of myocardial disease is the atrium with occasional ventricular involvement. Pathologically, four histologic types are described: nodular, miliary, infiltrative, and nonspecific interstitial myocarditis. The pathogenesis is due to direct contiguous, lymphatic, or hematogenous spread. Clinically, no cardiac manifestations are usually detected, but occasionally, the patient may present arrhythmia or congestive heart failure. The treatment is identical to that of miliary tuberculosis. The prognosis is extremely poor, and the patient usually dies.

Summary

We report a case of tuberculous myocarditis associated with miliary tuberculosis of the lungs, kidneys, adrenals, liver, spleen, and bone marrow. The paucity of cardiac symptoms and lack of physical findings in our case are stressed. Modern chemotherapeutic management of tuberculosis has diminished the number of patients with tuberculous myocarditis. Since the clinical diagnosis is extremely difficult, a high index of suspicion might be helpful in detecting this rare complication of tuberculosis.

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ANNOUNCEMENT

AWARDS AND PRIZE ESSAYS

The **Albion O. Bernstein, M.D. Award** for the most widely beneficial scientific discovery in medicine, surgery, or the prevention of disease made during the year. This will be awarded to the physician, surgeon, or scientist who made the discovery. A scroll and $2,000 will be awarded annually. This award was established in 1962.

The **Lucien Howe Prize and Merrit H. Cash Prize** are now also open for competition.

The **Lucien Howe Prize** will be presented for the best original contribution in some branch of surgery, preferably ophthalmology. The author need not be a member of the Medical Society of the State of New York.

The **Merrit H. Cash Prize** will be given to the author for the best original essay on some medical or surgical subject. Competition is limited to the members of the Medical Society of the State of New York who at the time of the competition are residents of New York State.

The following conditions must be observed:

Essays shall be typewritten with the name of the prize for which the essay is submitted, and the only means of identification of the author shall be a motto or other device. The essay shall be accompanied by a sealed envelope having on the outside the same motto or device and containing the name and address of the writer.

All essays must be presented not later than *May 1, 1981*, and sent to the Chairman of the Committee on Prize Essays of the Medical Society of the State of New York, 420 Lakeville Road, Lake Success, New York 11042.

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

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Metastasizing Fibroleiomyoma

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Metastasizing fibroleiomyoma and pulmonary fibroleiomyomatous hamartomas are rare diseases. Although certain similarities exist between these two entities, leading some investigators to suggest they are the same disease,[1] recent literature stresses certain clinical and histologic differences.[1,2] We report this case, a patient with metastasizing fibroleiomyoma with histologic changes indistinguishable from a fibroleiomyomatous hamartoma, to support the concept that these two rare entities may indeed be one disease.

Case report

A 48-year-old woman was hospitalized to investigate the presence of multiple nodules (Fig. 1A). Five years prior to admission she underwent a hysterectomy for treatment of a uterine leiomyomata. Results of a chest x-ray film taken at that time were negative. A chest x-ray film taken three years prior to admission demonstrated at least one nodule, 0.5 cm. in diameter, in the lower left lung field. Results of intravenous pyelogram, barium enema, and upper gastrointestinal series performed during this admission were negative. Computerized axial tomography of the abdomen revealed the presence of enlarged retroperitoneal lymph nodes which were confirmed by inferior vena cavogram (Fig. 2). At open thoracotomy, multiple pulmonary nodules were noted.

Histologically, the lesions appeared unencapsu-

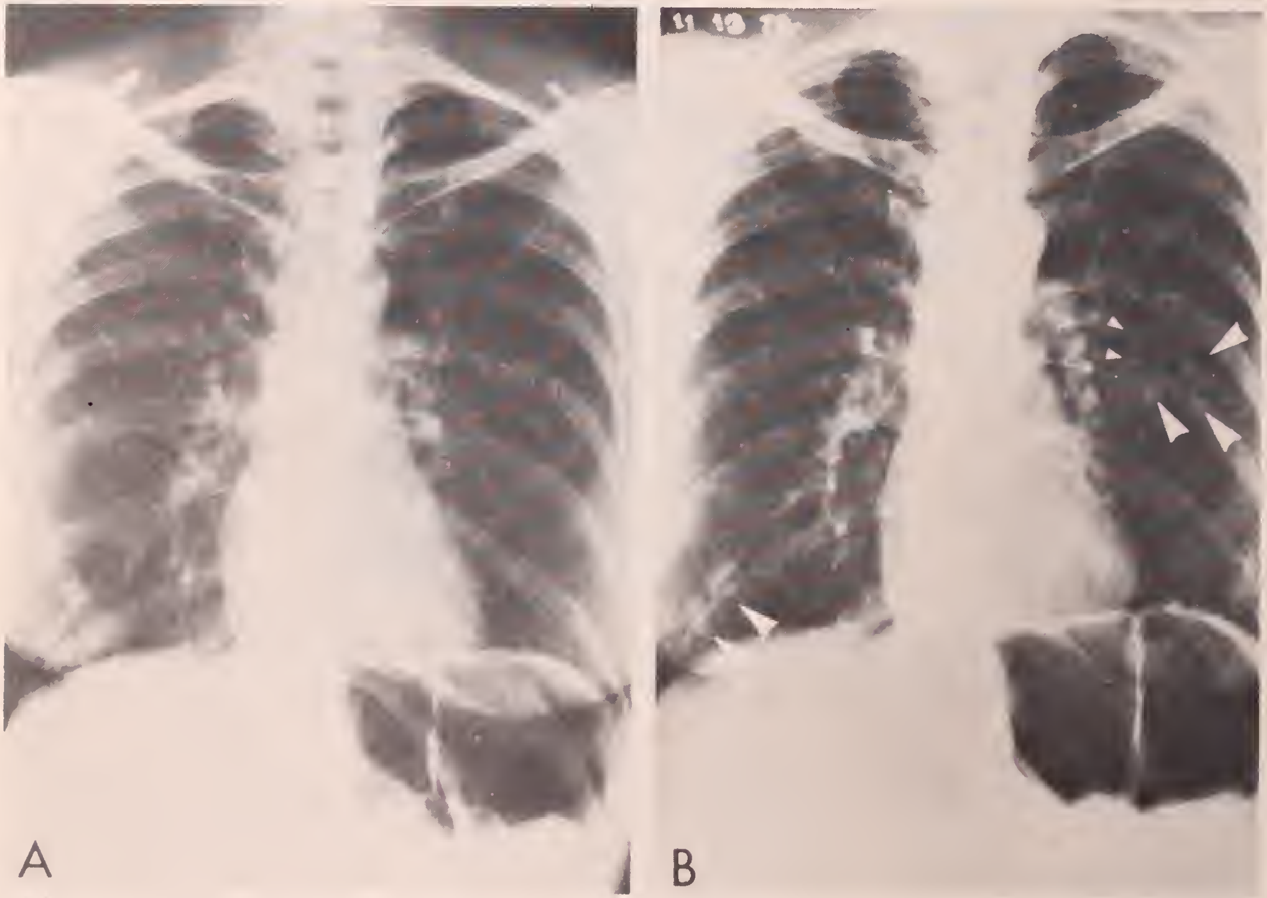

FIGURE 1. Posteroanterior chest roentgenograms. (A) Performed in 1977, reveals nodule in the left midlung. Other nodules present in right infraclavicular area and right lower lobe. (B) Performed in 1979, demonstrates several more discrete nodules, particularly in left midlung. Nodules present in 1977 roentgenogram have increased only slightly in size.

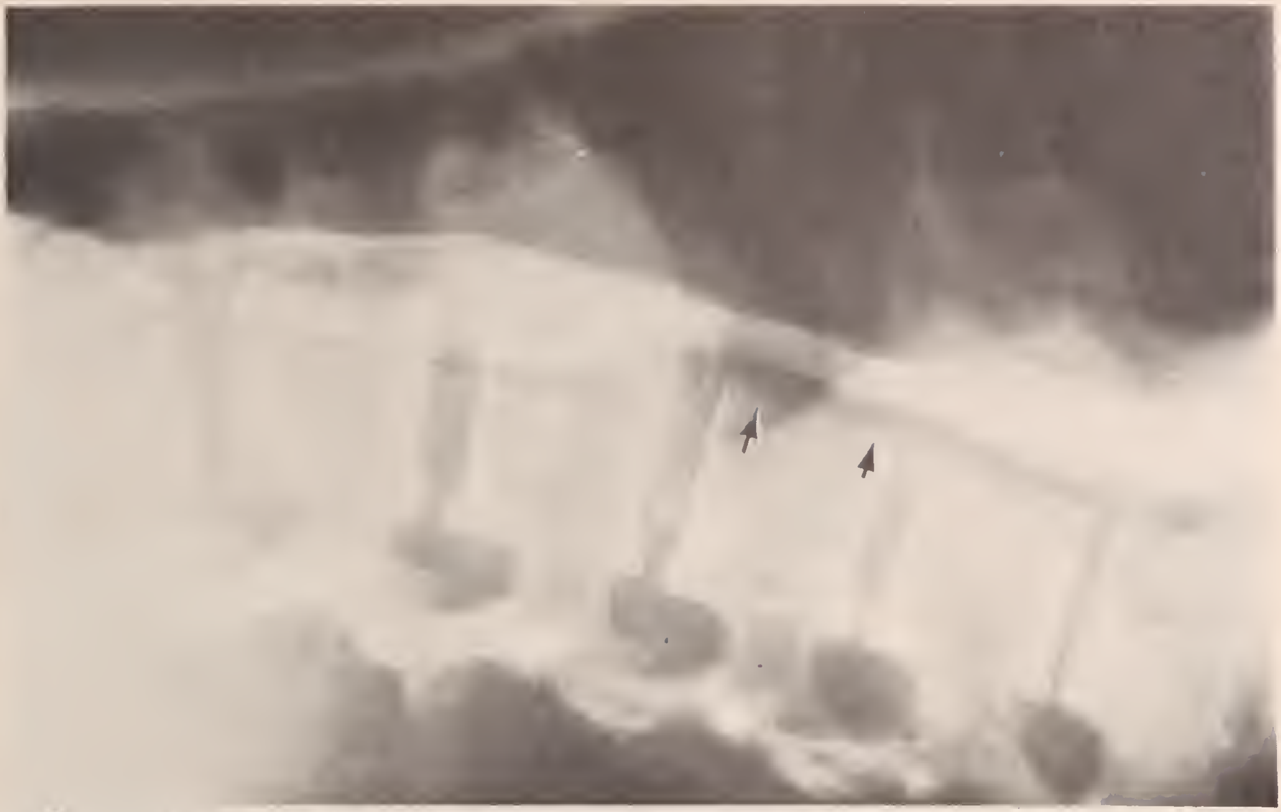

FIGURE 2. Inferior vena cavogram demonstrates curvilinear elevation of the inferior vena cava over the lumbar vertebrae. Degree of entrapment and incomplete obstruction also present. (Horizontal view)

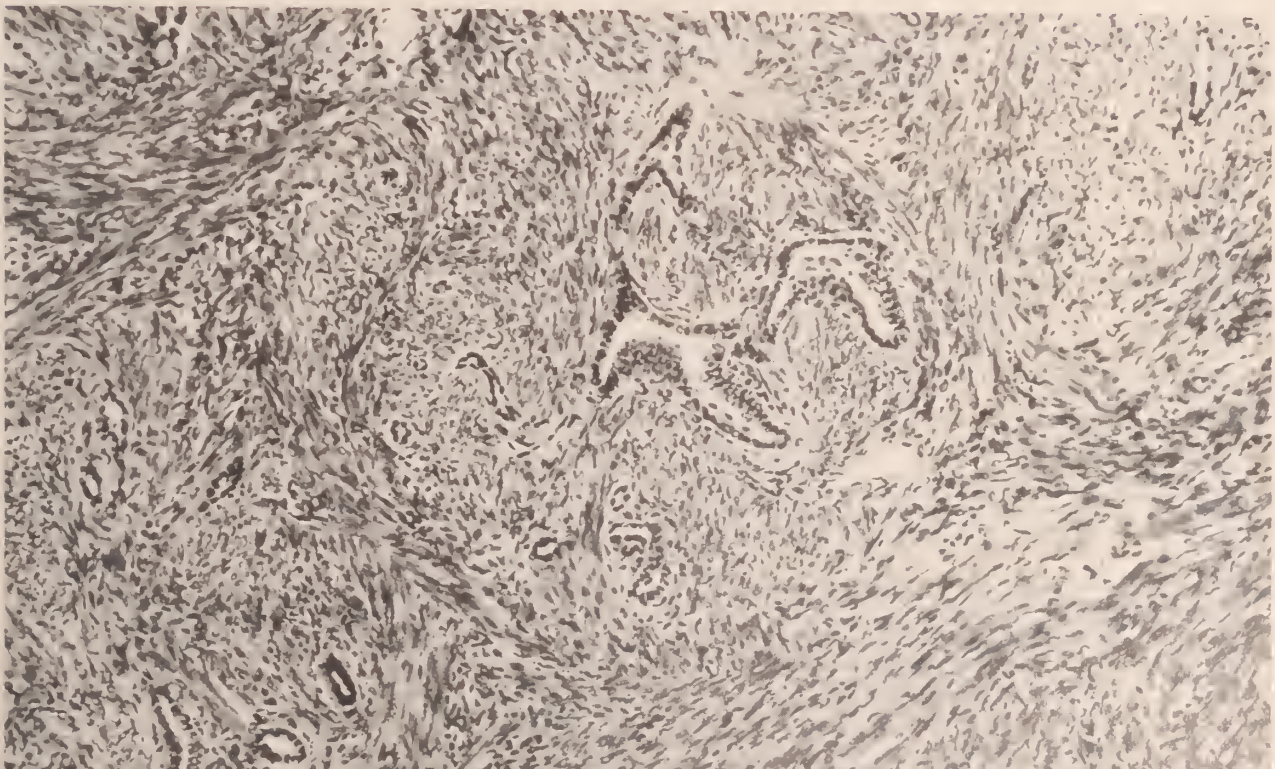

FIGURE 3. Glandular structures of varying caliber surrounded by swirling masses of spindle-shaped smooth-muscle cells (original magnification × 150).

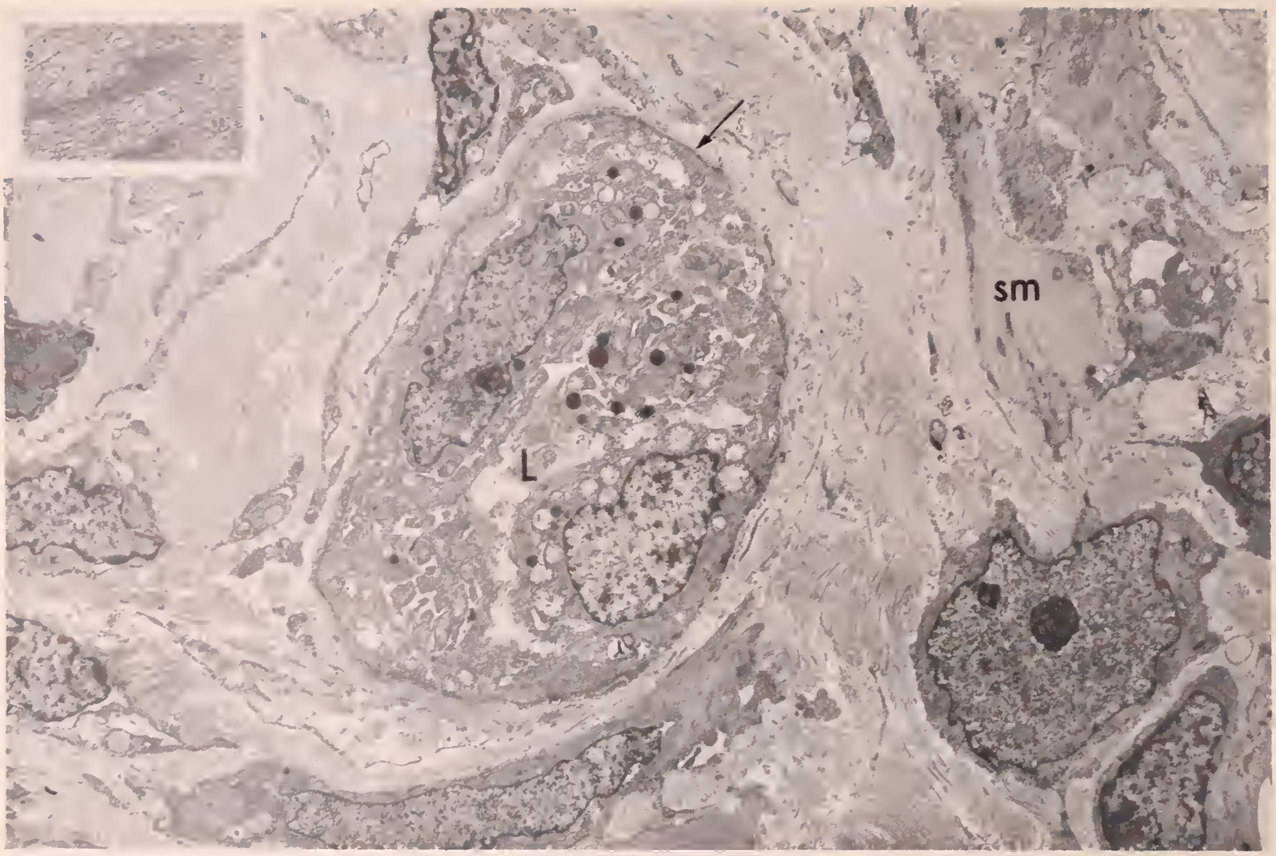

FIGURE 4. Low-power electron micrograph illustrates small glandular aggregate made up of pyramidal cells containing well-formed secretory granules (arrowhead) at their apical pole. Microvilli are seen to project into central glandular lumen (L). Thin basal lamina (arrow) separates this structure from surrounding collagenous stroma which contains several smooth-muscle cells (SM). These are characterized by focal areas of basal lamina along external cell surface while parallel arrays of thin myofilaments are interrupted by irregular focal densities, shown in inset (original magnification ×4700; inset ×45,000).

lated and were composed predominantly of smooth muscle. The cells were arranged concentrically around glandular spaces which were lined with benign cuboidal epithelial cells (Fig. 3). Electron microscopy confirmed the presence of benign smooth-muscle cells surrounded by dense collagenous stroma. The cytoplasm of the smooth-muscle cells contained primary lysosomal structures and glycogen granules as well as arrays of actin-like filaments measuring approximately 60 Å in diameter with randomly scattered dense bodies within them. Clusters of epithelial cells were arranged around a central lumen and were separated from the mesenchymal cells by a thin lamina densa (Fig. 4).

A chest x-ray film taken two years after the thoracotomy demonstrated a slight increase in size of the existing pulmonary nodules and the appearance of several new nodules (Fig. 1B).

Comment

The diagnosis of metastasizing fibroleiomyoma in this case was based on the histology of the pulmonary lesion, the previous history of uterine leiomyomata, and the presence of enlarged retroperitoneal lymph nodes. Although tissue confirmation was not obtained from these lymph nodes, metastases of uterine leiomyomata to pelvic and para-aortic lymph nodes have been previously documented.[3] Indeed, some have considered these tumors to be low-grade uterine leiomyosarcomas.[4] Metastasizing leiomyoma may be confused with fibroleiomyomatous hamartomas of the lung. Recently, Silverman and Kay[5] differentiated between these two conditions based on the presence of an epithelial component in fibroleiomyomatous hamartoma. However, this finding was clearly present in our patient and has been described in other patients with the diagnosis of metastatic fibroleiomyoma.[1,6,7]

After review of all the reported cases of both entities, Horstmann and his colleagues[1] have concluded that it is impossible to distinguish between these on roentgenographic, clinical, and histologic grounds. We would agree with their conclusions based on the pathologic finding in this case of an epithelial component previously thought to be present only in pulmonary fibroleiomyomatous hamartoma and the clinical finding of enlarged retroperitoneal lymph nodes, a finding present in metastatic fibroleiomyoma.

An additional argument can be made for combining both of these diagnoses under one disease. Both entities occur only in women and for the most part pursue a benign course. Since these tumors seem to be under hormonal control, salpingo-oophorectomy has been recommended as treatment of choice and should be considered particularly in the occasionally progressive case.

Therefore, the therapeutic approach to both of these diseases is also similar.

In conclusion, since these two rare entities cannot be distinguished from one another, we suggest that they should be combined under one disease heading, and the term "metastasizing fibroleiomyoma" as originally proposed by Steiner[7] seems appropriate. Whether this rare tumor is benign or malignant remains open to speculation at the present time.

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One million Americans bitten by dogs each year

Dog bite has become an extremely common medical problem in the United States.

Each year at least one million persons are bitten by dogs, and the annual incidence is rising, says a report in the November 21 Journal of the American Medical Association.

Dog bites now account for almost one percent of all visits to hospital emergency departments, says Michael Callaham, M.D., of the University of California School of Medicine, San Francisco. Dr. Callaham is in emergency medicine at hospitals in Oakland and Fresno.

Half of the dog bites are trivial, requiring little more than a swab of disinfectant. But at least 10 percent of the bites require stitches and follow-up visits; one to two percent require hospitalization. Occasionally death results from attack by a dog or dogs.

A dog's teeth are not very sharp, but the jaw can exert a pressure heavy enough to penetrate sheet metal, Dr. Callahams declares. Thus, the result is a crushing injury with much damaged tissue, rather than a sharp cutting injury.

The average dog's mouth harbors at least 64 species of bacteria that can cause infection in humans, he says. Some two to five percent of dog bite wounds seen in the emergency department become infected. Deep wounds have a much higher infection rate, as do hand wounds.

Dr. Wise recommends that the physician trim away crushed and torn tissue from the edges of the wound before sewing it up. Antibiotics to guard against infection might be in order, particularly in hand wounds or deep bites.

All of these wounds are exclusive of the danger of rabies, a serious illness requiring prompt and lengthy treatment to save the victim's life.

Extragonadal Germ-Cell Cancer Syndrome

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A recent case of an extragonadal germ-cell tumor in a young adult male prompted a review of the management of these uncommon neoplasms. Combination chemotherapy, often including vinblastine sulfate, bleomycin sulfate, and cis-platinum, has increased the survival of patients with metastatic germ-cell tumors appreciably over what was expected with the use of single agents. Recognition of a germ-cell tumor, therefore, is crucial, and the following case report and discussion serve to emphasize the nature of an extragonadal germ-cell cancer syndrome.

Case report

A 32-year-old white male was first seen at Coney Island Hospital on April 12, 1980, with the chief complaint of right upper quadrant abdominal pain of three to four weeks' duration. Evaluation of his abdominal pain by his private physician consisted of an upper gastrointestinal series, barium enema, and intravenous pyelogram, findings for which were reported as normal. An oral cholecystogram performed one day prior to admission revealed nonvisualization of the gallbladder, and the patient was referred for admission.

Physical examination revealed a thin, young adult male complaining of severe right upper quadrant abdominal pain with worsening in the supine position. Vital signs were within normal limits. There was no gynecomastia. Examination of the abdomen revealed it to be distended with guarding and generalized tenderness, particularly in the upper portion of the abdomen. The liver was very tender and nodular to palpation, with a total vertical span of 18 cm. The spleen was palpable just below the costal margin. The testes were normal in size and consistency. The remainder of the physical examination was noncontributory.

Laboratory studies revealed: hemoglobin 12.5 Gm. per 100 ml., hematocrit 36.4, and WBC (white blood cells) 14,200 cells per cubic millimeter. Urinalysis revealed 1-plus proteinuria with occasional WBC and red blood cells and many bacteria. Blood urea nitrogen was 38 mg., creatinine 3.1 mg., calcium 8.8 mg., and uric acid 6.1 mg. per 100 ml.; total protein 6.2 Gm. and albumin 3.7 Gm. per 100 ml.; total bilirubin 1.3 mg. per 100 ml.; alkaline phosphatase 610 u., serum glutamic oxaloacetic transaminase 112 u., and lactic acid dehydrogenase 4,000 u. per liter. Findings on posteroanterior and lateral chest films were normal. A liver-spleen scintiscan revealed hepatomegaly with numerous space-occupying defects in both lobes, and splenomegaly. Sonography of the upper abdomen revealed probable solid masses in the liver and fullness of the retroperitoneal region, apparently due to adenopathy.

On the second hospital day, a percutaneous liver biopsy was performed. Twelve hours after the liver biopsy, the patient developed increasing abdominal girth with pain, and a diagnostic paracentesis revealed gross blood in the peritoneal cavity. He was taken to the operating room where an exploratory laparotomy was performed, revealing active bleeding of a tumor nodule at the medial surface of the left lobe of the liver. Enlarged retroperitoneal nodes were noted extending down the aortic chain. The bleeding site was ligated, but intraperitoneal blood loss continued postoperatively. An unsuccessful attempt was made to selectively catheterize the hepatic artery for embolization, and on the sixth hospital day the patient expired.

Further laboratory data included a beta-subunit human choriogonadotropin level of 600,000 milliunits per milliliter and an alpha-fetoprotein level of 173 ng. per milliliter (normal 0 to 25).

The liver biopsy showed fragments of liver and necrotic and hemorrhagic epithelial tumor with many viable papillary structures, some of which had vascularized fibrous core and resembled chorionic villi (Fig. 1A). They were covered by two or more layers of cuboidal cells (cytotrophoblasts) with single vesicular nuclei of uniform size and one or more prominent nucleoli. The cytoplasm was eosinophilic and sometimes vacuolated. In some areas, large multinucleated cells (syncytiotrophoblasts) with abundant amphophilic cytoplasm were also seen (Fig. 1B). Mitoses were numerous. The picture was consistent with metastatic choriocarcinoma, but the scarcity of tissue precluded further classification, such as pure or combined.

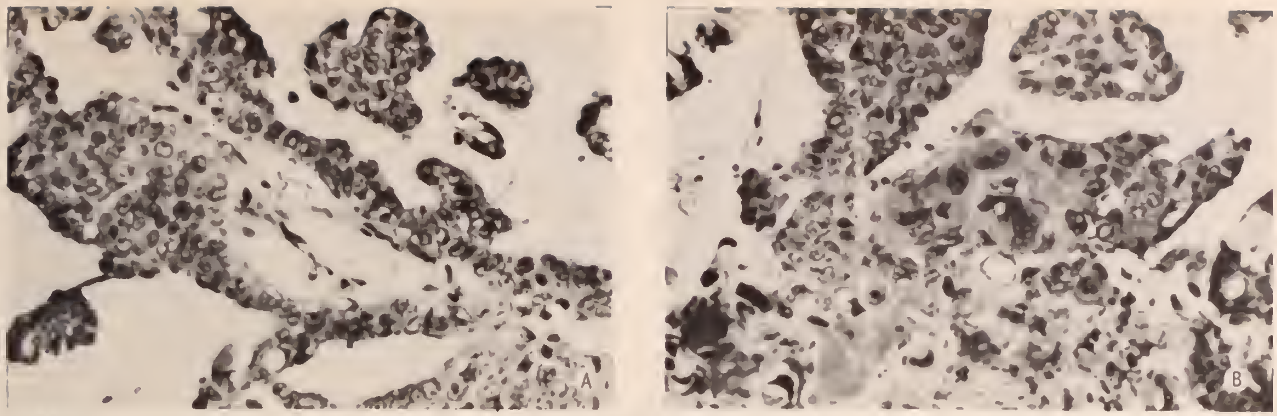

FIGURE 1. (A) Fragments of liver and necrotic and hemorrhagic epithelial tumor with viable papillary structures, some with vascularized fibrous core resembling chorionic villi. (B) Large multinucleated cells (syncytiotrophoblasts) with abundant amphophilic cytoplasm. (Hematoxylin and Eosin Stain, original magnification × 450)

Comment

Primary germ-cell tumors have been reported in various sites, including the pineal body, thymus, anterior mediastinum, and retroperitoneum. Tumor development at these sites is probably due to neoplastic transformation of germ cells that have become displaced at various points along their normal pathway of migration to and from the urogenital ridge[1]; seminomas, embryonal cell carcinomas, teratocarcinomas, and choriocarcinomas have all been reported to arise in these extragonadal sites. It has not proved worthwhile to explore normal-feeling testes or to do random testicular biopsies in these patients,[2,3] although Meares and Briggs[4] have suggested orchiectomy of an atrophic testis, which may harbor a clinically inapparent primary neoplasm.

Extragonadal seminomas have generally been resected where possible and given postoperative radiotherapy with good results,[2,5–7] although in some cases patients developed distant metastases to lungs, liver, and bone.[2] Nonmetastatic nonseminomatous extragonadal germ-cell tumors should also be resected if possible, but these tumors are difficult to control with postoperative radiotherapy alone, and often metastasize early. Clearly, a chemotherapeutic approach to these patients is indicated.[2,5,8]

Results with chemotherapy in extragonadal nonseminomatous germ-cell tumors have improved since the addition of vinblastine sulfate, bleomycin sulfate, and cis-platinum to the chemotherapist's armamentarium. From Memorial Hospital, New York City, Reynolds et al.[8] reported their experience with 19 patients treated with combination chemotherapy, including the previously mentioned drugs. An overall response rate of 53 percent was seen with two complete responses of 51- and 12-plus months' duration; median survival of these 19 patients was 13 months.

Feun and Samson[9] treated 13 patients with metastatic extragonadal germ-cell tumors with a combination of vinblastine sulfate, bleomycin sulfate, and cis-platinum, and obtained 2 complete responses (15 percent), partial responses (46 percent), and 2 stable remissions (15 percent).

The experience of Richardson et al.[10] with this drug combination was also good, with 10 of 15 patients free of disease with a median survival of 6-plus months.

The presence of an elevated serum AFP (alphafetoprotein) and/or beta-HCG (human chorionic gonadotropin) suggests the diagnosis of an extragonadal germ-cell tumor in young adults with predominantly midline tumors.[10–12] These tumors may be initially interpreted by the pathologist as poorly differentiated carcinomas and must be carefully scrutinized for the presence of germ-cell elements. Greco et al.[11] reported on 24 patients with such poorly differentiated carcinomas, of which 22 were male and 2 female. The median age of their patients was 40 years, with a range of 21 to 61 years of age. Serum AFP and/or beta-HCG was elevated in 7 of 22 patients; 13 of 20 patients had AFP and/or beta-HCG present in their tumors by immunocytochemical staining. Tumors were mainly midline in location (mediastinum, retroperitoneum, and lung), but were also in other sites, including brain, bone, and pleura. Of 21 patients treated with chemotherapy (15 received vinblastine sulfate, bleomycin sulfate, and cis-platinum), 9 had complete responses, 9 had partial responses, and 5 patients were in complete remission for from 3 to 51 months. Greco et al.[11] thus coined the term "the unrecognized extragonadal germ-cell cancer syndrome" to include relatively young adults, usually male, who have poorly differentiated carcinomas in midline locations, often with elevated AFP and/or beta-HCG either in the serum or on immunocytochemical staining of the tumor, and who have a good response to chemotherapeutic regimens available for germ-cell tumors.

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Further control measures urged to wipe out animal borne disease

Brucellosis, an annoying disease that humans get from infected animals, has been markedly reduced through control measures in the United States. But it is still present, and a continuation of intensive eradication programs is important to wipe out this disease.

In 1947, some 6,321 cases were reported in the United States, and authorities were aware that most cases went undiagnosed and unreported. By the 1970s, control measures had reduced reported cases to less than 300 per year. But there still were many unreported cases.

Writing in the November 21 Journal of the American Medical Association, Robert I. Wise, M.D., of the Veterans Administration Medical and Regional Office Center, Togus, Maine, traces the history of brucellosis control in the United States since World War II.

The organisms that cause the disease are borne to humans by raw meat, raw milk, and other dairy products using raw milk, Dr. Wise says. The illness causes chills, fever, sweats, weakness, loss of appetite, and weight loss. But the symptoms are similar to influenza, and often the disease is not diagnosed for several weeks.

Brucellosis is seldom fatal, and responds readily to treatment with antibiotics. It is completely curable if diagnosed within a month of onset of illness.

Dr. Wise notes that the disease was almost under control in the 1960s, but a resurgence was noted in the mid-1970s. In earlier years most human cases came from swine, but recently infected cattle have predominated as the source, he says. In 1975, Texas had 6,151 infected herds, more than one third of infected herds in the nation.

Rigidly enforced public health methods, coupled with prompt reporting of cases by physicians, will be required to eliminate the disease, he says.

The Chicago Board of Health decreed in 1955 that only milk and cream from brucellosis-free herds would be acceptable in Chicago. This threat stimulated the dairy industry to eliminate infection from the herds. Infected animals must be slaughtered to prevent spread of the disease through the herd to other herds and to humans.

In an accompanying editorial, Journal Editor William R. Barclay, M.D. points out that modern medicine has reduced death and disease through control of infectious diseases so successfully that the health care community may have become complacent, believing that infectious diseases are no longer a threat.

Dr. Barclay calls for continued public health measures to control brucellosis, and for physicians to cooperate by diagnosing the illness and reporting cases promptly to public health authorities.

Myocardial Involvement in Mixed Connective Tissue Disease*

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MCTD (mixed connective tissue disease) is a syndrome with overlapping features of SLE (systemic lupus erythematosus) PSS (progressive systemic sclerosis), and PM (polymyositis).[1] Myocardial involvement has been seen in the latter diseases but has not been described in an adult with MCTD. Singsen et al.,[2] however, described 14 children with MCTD, 4 of whom had clinical myocarditis. In addition, three of their patients who had no clinical evidence of heart disease showed myocarditis on autopsy.

We report here an adult with MCTD who died from acute cardiac failure.

Case report

The patient was a 35-year-old black woman who was admitted to NCBH (North Central Bronx Hospital) with chest pain and dyspnea. She had been well until mid-1977 when she noted pain in her hands associated with cold exposure, diffuse arthralgias, weakness, chest pain, and dyspnea on exertion. In September, 1977, she was admitted to another hospital with a low-grade fever and proximal muscle weakness. A muscle biopsy showed a perivascular lymphocytic and histiocytic reaction with minimal involvement of vessel walls. There was no fibrinoid necrosis or vascular thrombosis. There was minimal evidence of muscle fiber involvement. ANA (anti nuclear antibodies) were present, and anti-RNP (ribonucleoprotein) antibodies were positive to a titer greater than 1:65,500. Anti-dsDNA (double stranded deoxyribonucleic acid) antibodies were absent. A diagnosis of MCTD was made and she was treated with prednisone, 15 mg. four times a day, to control her myositis. Following discharge, her dose of prednisone was slowly tapered until March, 1978, when the steroids were stopped by the patient because of intolerance of the cushingoid effects.

The patient was fairly stable until July, 1978, when she was admitted to NCBH because of a spontaneous abortion. Substernal chest pain and dyspnea led to her transfer to the medical service. An active proximal myopathy manifested as weakness and a CPK (creatinine phosphokinase) greater than 1,000 U., skin tightening over her hands and around her mouth, and Raynaud's phenomenon were noted. Repeat serologies showed a 4-plus ANA, normal total hemolytic complement, anti-RNP antibodies greater than 1:65,500, and anti-dsDNA antibodies of 3 micrograms per milliliter (normal 0 to 3 micrograms per milliliter). The chest x-ray film showed a globular heart; hand x-ray films showed periarticular osteoporosis; and findings on electrocardiogram were normal. Pulmonary function test findings revealed minimal restrictive disease and a moderate decrease in the diffusion capacity. Her renal function was normal throughout her course.

To control her myositis, prednisone, 20 mg. per day, was started; she refused higher doses. Following discharge, her weakness improved despite continued elevation of the CPK. Raynaud's phenomenon continued and small ulcers of the fingertips appeared. Her dyspnea remained unchanged.

In November, 1978, the patient came to NCBH because of five days of pain in the lower extremities, weakness, and severe chest pain with dyspnea. She was taking prednisone, 40 mg. alternating with 5 mg. daily. On admission, the patient was in moderate distress. Her blood pressure was 150/120 without a paradox; her blood pressure had previously always been normal. The pulse was 130 with pulsus alternans, and her temperature was 100° F. Jugular venous distension was noted and rare basilar rales were heard. The point of maximal impulse was laterally displaced 3 cm. The first heart sound was decreased, and a soft pericardial friction rub was heard. The liver edge was tender. All fingers showed early sclerodactyly.

The patient's hematocrit was 44, and white-cell count was 10,000 cells per cubic millimeter. The chest x-ray film showed an enlarged globular heart, significantly increased compared with a film from August, 1978. The electrocardiogram revealed a sinus tachycardia, a new left anterior hemiblock, and nonspecific ST-T wave changes. The CPK was 509 U. with the MB fraction present. A cardiac echo showed a small pericardial effusion; diminished left ventricular function was suggested by a posterior position of the mitral valve; recognition of prominent mitral valve "B" point was consistent with an elevated left ventricle end-diastolic pressure.[3]

Pericarditis and myocarditis with early congestive failure was diagnosed, and prednisone, 60 mg. per

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day, was administered. Over the next 36 hours, the patient continued to have dyspnea, but her pain decreased. On the third hospital day, the patient suddenly complained of severe chest pain which was unresponsive to morphine. Bradycardia developed and was followed by asystole. She was resuscitated but remained comatose with refractory cardiac failure until her death three days later. Pressure measurements by Swan Ganz catheterization obtained within 12 hours of her cardiac arrest were as follows: right auricle 20 mm. Hg.; right ventricle 70/20; pulmonary artery 70/40; and pulmonary capillary wedge pressure 35 to 40 mm. Hg.

Autopsy examination

There was a mild fibrinous pericarditis as well as a slight pericardial effusion amounting to 50 cc. The heart showed a mild degree of hypertrophy, 420 Gm., and a marked degree of dilatation of all four chambers. No endocardial or valvular lesions were seen. The coronary arteries were anatomically normal and were patent, with virtually no evidence of atherosclerosis. The myocardium showed no abnormalities in the gross. Microscopic examination showed focal lymphocytic aggregates in the epicardium corresponding to the pericarditis. An extensive sampling of the myocardium showed only rare, extremely minute areas of acute necrosis involving a few myocardial fibers. No arteritis or significant areas of myocardial necrosis or fibrosis were seen. The small intramyocardial vessels occasionally showed mild medial hypertrophy. Findings on Congo red stains of the myocardium were negative. Significant findings in other organs included severe passive congestion of the liver, a few thromboemboli in pulmonary vessels along with one small recent pulmonary infarct, medial thickening of small pulmonary as well as renal arteries, scattered perivascular lymphocytic aggregates in skeletal muscle, and atrophy of occasional skeletal muscle fibers. The skin and esophagus showed no changes suggestive of PSS.

Comment

Myocardial involvement has been described in PSS, PM, and SLE.[4–9] However, other than the previously mentioned report of myocarditis in children with MCTD, there is no description of myocardial disease occurring in an adult with MCTD. Our patient met all the criteria for MCTD. She had arthralgias, Raynaud's phenomenon, and myositis. Her skin had typical sclerodermatous changes, pulmonary function test findings were abnormal, and she had high titers of anti-RNP antibodies. Prior to her final admission there was little to suggest myocardial disease; she was never hypertensive, and she denied use of alcohol. However, heart disease was clearly evident in November, 1978. Her severe pressing chest pain, dyspnea, a pulsus alternans, and a pericardial friction rub suggested both myocardial failure and pericardial inflammation. New cardiomegaly on chest x-ray films and the abnormal echo findings supported the diagnosis of left ventricular failure. The elevated CPK with the MB fraction present indicated the presence of necrosis, but the electrocardiogram failed to show a pattern of a classical myocardial infarction.

The patient's death was attributed to cardiac failure. The autopsy confirmed this impression, revealing marked chamber dilatation, microscopic foci of necrosis, and occasional small-vessel medial hypertrophy. However, the cause of this process was not evident. Although the cardiac arrest clouds the interpretation of the microscopic necrosis, it could not account for the dilatation, especially since cardiomegaly had been documented prior to her cardiac arrest. It was unlikely that hypertension caused the heart disease in view of the absent chronic history of hypertension; furthermore, her clinical and pathologic picture was inconsistent with malignant hypertension.

Several types of myocardial involvement may occur in the systemic connective tissue disorders. Fibrosis or contraction band necrosis is seen in PSS,[4] while frank myocarditis has been frequently reported in SLE and polymyositis.[7–9] In addition, patients with polymyositis have been described with clinical evidence of congestive heart failure who, at autopsy, showed no myocardial or coronary valvular disease, suggesting the presence of an underlying cardiomyopathic process not visible by light microscopy.[9] Our case appears to be an example of this type of cardiomyopathy occurring in a patient with MCTD.

The anti-RNP antibody has been claimed to be a serologic marker for a clinically identifiable subset of patients with SLE.[10,11] Among the clinical characteristics of this subset are both skeletal and cardiac muscle disease.[8] The presence of myocardial disease in our patient with MCTD and high titers of anti-RNP antibodies, as well as the high incidence of myocardial involvement reported in children with MCTD and anti-RNP antibodies, may represent an extension of this serologic and clinical correlation. The mechanisms responsible for this correlation are not well understood. Winfield, Koffler, and Kunkel[12] studied nuclear antigens present in the serum of 24 patients with acute myocardial infarction. Using hemagglutination inhibition, they detected free RNP in the sera of 79 percent, while single-stranded DNA and double-stranded RNA were present in only three and two patients respectively in this group. It is certainly conceivable that in patients with SLE or MCTD who have a defect in tolerance, myocardial damage may lead to the release of enough RNP antigen to induce the formation of anti-RNP antibodies. In this regard Winfield, Koffler, and Kunkel[12] detected anti-RNP antibodies transiently in 16 of 18 patients who had suffered an acute myocardial infarction within the previous two weeks, and who were also taking procainamide hydrochloride, a drug known to lead to autoantibody production. This theory would account for the clinical and serologic association seen in patients with both cardiac and/or skeletal muscle disease and a propensity to autoantibody production.

Summary

Myocardial involvement has never been described in an adult with MCTD (mixed connective tissue disease). We describe here a young woman with MCTD who died with acute heart failure. Clinical examination, chest x-ray films, echocardiography, CPK-MB fraction detection, and hemodynamic monitoring all documented cardiac involvement. Autopsy only revealed four-chamber dilatation. The significance of the sparse pathologic findings is discussed along with the relationship of the skeletal and myocardial involvement and the anti-RNP antibody.

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Medical schools facing possible retrenchments

The nation's output of new medical doctors will continue to grow in the immediate future, but most medical schools already are beginning to consider or to implement reductions in class size, according to the 80th Annual Report on Medical Education of the American Medical Association.

Public perception was growing that the need for increased numbers of physicians had been satisfied, and both executive and legislative branches of government seemed determined to reduce the size of the medical education system through the reduction of financial support, the AMA pointed out.

The report is published in the December 26 Journal of the American Medical Association.

But the reduction has not yet come about, and the physician population continues to grow year by year, the AMA report indicates.

Total enrollment in the 126 U.S. medical schools in 1979–80 was 64,195, an increase of 2.3 percent over the previous year.

The AMA noted a downturn in the number of applicants to medical schools. The 1979–80 applicant total was 36,141, a drop of 500 from the previous year, and down from the peak year of 42,624 applicants in 1974–75.

There still were 2.1 applicants for each place in the freshman class. New enrollment totaled 17,014 students in 1979–80, an increase over the previous year's total of 16,620.

The medical schools graduated a record number of new physicians at the close of the 1979–80 year, 15,135, a small increase over the previous year.

The total number of women enrolled in medical schools continued to climb, to 16,315. Some 25.4 percent of medical students are women.

Ethnic minorities enrolled in medical schools in 1979–80 totaled 8,318, a percentage of 13.1.

Delirium Secondary to Clonidine Therapy

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Clonidine hydrochloride (Catapres) is a centrally acting antihypertensive that has been associated with several behavioral side effects. Sedation is the most common; depression and vivid, frightening dreams are seen less frequently.[1] Reports of psychosis secondary to clonidine have been rare.[2,3] We recently observed a case of delirium which we believe was secondary to clonidine. This is the first such case report in the literature.

Case report

A 34-year-old black male had been maintained on clonidine, 0.1 mg. twice a day for one year. He was seen by his physician on March 14, 1980, and because his blood pressure was 170/120 his clonidine was increased to 0.2 mg. twice a day. On the night of March 19 he experienced vivid, frightening dreams in which he believed the devil was going to kill him. On March 20 he called his physician saying that a plastic pen was melting in his hand and that smoke was coming from the bottom of his hand. He was told to come in for an immediate evaluation.

The patient came to the clinic with his wife. He had no past history of psychiatric illness but did admit to moderate alcohol use for the past 15 years. He stated he had 2 to 3 beers approximately every other day the previous week but had nothing to drink since the evening of March 13, 1980. This was corroborated by his wife. He had no history of blackouts, seizures, alcohol-related hallucinations, "the shakes," or delirium tremens. He had a high school education, had held a regular blue-collar job for eight years, had been married for 10 years, and was the father of three children. Outside of his hypertension his medical history gave negative findings.

His vital signs were: blood pressure 140/90, pulse 108 and regular, and temperature 99.4°F. Results of physical examination were normal except for the finding of clammy, warm skin. There was no tremor.

On mental status examination the patient appeared quite anxious and fearful. His speech was rambling and at times incoherent. He believed that the devil wanted to kill him. He maintained that a pen had melted in his hand and that he had seen snakes crawl around his bed, but he was not hallucinating or experiencing illusions at the time of the interview. He knew the year but not the day, date, or month. He was unable to perform serial 2 subtraction from 100.

The clonidine was not immediately discontinued because of the possibility of a rebound hypertensive effect, but it was reduced to its initial level. The patient's mental status gradually improved over the following four days, and when seen on March 24, 1980, he was no longer delusional and had experienced neither hallucinations nor frightening dreams for two days. He was oriented to time, place, and person. He had not taken any of the antipsychotic medication prescribed. The clonidine was discontinued at this time, and propranolol hydrochloride (Inderal) was substituted with effective control of his hypertension.

Comment

This patient suffered from vivid, frightening dreams as well as a toxic delirium manifested by visual hallucinations (seeing smoke come from the bottom of his hand), delusions (the devil wanted to kill him), impaired orientation, and an attentional deficit, evidenced by his inability to perform serial 2 subtraction from 100.[4] Although alcohol withdrawal syndromes can occur up to a week following cessation of drinking, neither the patient's past nor recent history indicated that this was the cause of his symptoms.

We believed clonidine to be the offending agent for several reasons. First, the clonidine had been increased four days before the onset of symptoms. Second, vivid, frightening dreams have been reported to result from clonidine therapy even though toxic delirium has not. And third, the symptoms abated following a return to the initial dosage of clonidine without treatment with an antipsychotic medication.

Several reports have indicated clonidine can cause hallucinations.[2,3] Three of four patients developed paranoid delusions as well. All these patients maintained a clear sensorium in distinction to our patient who was disoriented and had difficulty focusing his attention on simple intellectual tasks. Only one case of dementia secondary to clonidine has been reported in the literature.[5] Although gradual impairment in the patient's cognitive functioning was seen over a period of time, he did not experience hallucinations or delusions. These reports represent idiosyncratic reactions to clonidine, but it must be kept in mind that psychosis, dementia, and delirium can result from its use. Symptoms can be relieved promptly by discontinuing the medication.

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Drugs to curb blood pressure may also curtail sexual function

Drugs that help cope with high blood pressure and other circulatory and heart problems also can have problematic effects on the individual's sex life.

These effective but potent drugs are most helpful in controlling the potential serious threat to health of high blood pressure. But in so doing, they also can curb the sexual drive and render the individual impotent, says a report in the October issue of an American Medical Association publication.

Writing in Archives of Internal Medicine, Chris Papadopoulos, M.D., of South Baltimore General Hospital and the University of Maryland School of Medicine, points out to fellow physicians that the severe impact on sexual function might well cause some patients to quit taking the needed medications to restore their sex life.

Knowledge of these side effects, Dr. Papadopoulos says, "is vital in sexual counseling" while "tactful evaluation of the sexual function of the patient before prescribing is advisable and may prevent later unnecessary discontinuation of therapy with these medications."

The health professional may, by inquiring in a comfortable and caring manner about the sexual function of the patient undergoing treatment, discover the drug effect, he says.

But, telling a patient that a drug may cause impotence may indeed cause it, regardless of the physical effect of the drug. Fear itself often is a cause of impotence, the article states.

To treat the problem, Dr. Papadopoulos suggests reduction in dosage, or switching to an equally effective drug with a lesser potential effect on the sexual mechanism.

When the goal to normalize the blood pressure cannot be achieved without side effects, Dr. Papadopoulos suggests the physician should be encouraged to settle for something less, knowing that even partial control of the blood pressure would substantially reduce the risk of future complications.

Sexual dysfunction Dr. Papadopoulos says, "may have an adverse effect on the overall health of the individual and may cause heart disease. Therefore, sexual counseling is vital in the management of any patient, and is particularly important in cardiovascular rehabilitation."

Babesiosis

A potentially grave disease for the immunosuppressed

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Babesiosis results from a protozoal infestation of erythrocytes. It is transmitted by the bite of an infected tick of the genus *Ixodes*. Most of the reported human cases in the United States appear to arise from a reservoir in tick-carrying field mice on Nantucket Island[1] and Martha's Vineyard, Shelter Island[2] and Montauk[3,4] on Eastern Long Island. We have recently seen another patient who developed babesiosis after camping in Montauk. The patient's symptoms were "flu" like and self-limiting; however, babesiosis presents grave morbid danger to those who have had a splenectomy[5,6] or who are immunosuppressed.

Case history

A 69-year-old white male had been camping in wooded areas in Montauk. Three weeks later he found a red tender area about 4 cm. in diameter in the right inguinal region that he felt was due to an insect bite. He recalls a tick falling to the floor from his clothing. He was placed on erythromycin. The redness and tenderness cleared, but he still ran a temperature between 102°F. and 104°F. The erythromycin was discontinued. He developed tiredness, malaise, and weakness and was admitted to the hospital. There was a past history of pulmonary tuberculosis, bronchiectasis, and malaria.

On physical examination he was mildly dyspneic. Examination of the heart, lungs, and abdomen was not remarkable: blood pressure 120/70, pulse 88, respirations 20. The sclerae were slightly icteric. Chest x-ray film showed fibrocalcific changes in the left apex.

Barium enema, intravenous pyelogram, and gallbladder series results were all negative. Gastrointestinal series revealed a slight hiatus hernia. The electrocardiogram was normal. Laboratory tests revealed a hemoglobin of 11.9 Gm. per deciliter; white blood cell count was 5,000 per cubic millimeter with a normal differential. The hemoglobin dropped to 9.4 Gm. per deciliter; the reticulocyte count was 4 percent and the serum haptoglobin less than 10 mg. per deciliter, suggesting hemolysis. Urinalysis showed a specific gravity of 1.031 and 2 plus proteinuria. Blood chemistries showed an elevation of bilirubin to 2.6 mg. per deciliter. Two days later the bilirubin dropped to 1.5 mg. per deciliter, and the SGOT (serum glutamic oxaloacetic transaminase) rose to 100 millimicrons per milliliter. On the fifth day after admission, the bilirubin was 1.0 mg. per deciliter and SGOT 39 millimicrons per milliliter.

Results of serologic tests for typhoid-H, typhoid-O, paratyphoid-A, paratyphoid-B, brucellosis, OX19, heterophil, cold agglutinin, rheumatoid arthritis, Venereal Disease Research Laboratory (V.D.R.L.), and fluorescent antinuclear antibody were negative. His temperature dropped to 99° F. on the fifth hospital day; he was asymptomatic; on the eleventh hospital day he was discharged. No antiparasitic therapy was given.

This patient had rare, small, intraerythrocytic protozoa detected on stained blood smear after meticulous search by a diligent technologist* who was asked to look for malaria The diagnosis of babesiosis was confirmed by a rising indirect fluorescent antibody test and by an injection of the patient's blood into a hamster with growth of the protozoa occurring.†

Of the original four cases reported in Europe, three were fatal, all of the patients having had prior splenectomies.[5,6] The spleen has a protective effect by removing the parasites from the red cells which may account for the fatal reaction.

Conclusions

It is important to alert splenectomized and immunosuppressed individuals, who are at high risk for marked parasitic proliferation, to avoid areas infested with Babesia. These patients might also develop severe infections when transfused with blood from donors who are asymptomatic carriers.

The question that requires study concerns the risk involved in using blood donors from endemic areas. Even when suspected and present, the parasites may not be seen in the erythrocytes and may still be infective by blood transfusions.[7] The incidence of a four-fold rising titer to *Babesia microti* of rodent origin was 5.9 percent in asymptomatic individuals on Shelter Island,[8] suggesting the presence of subclinical cases.

Babesiosis should not be considered a benign medical rarity.

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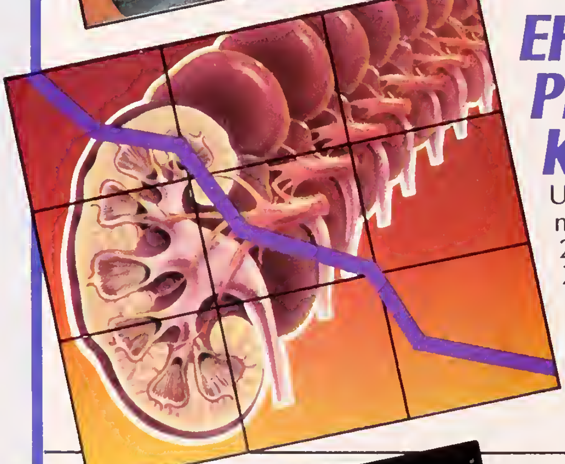

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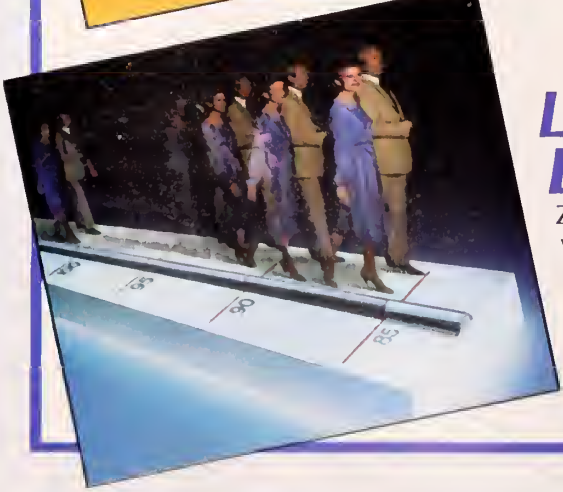

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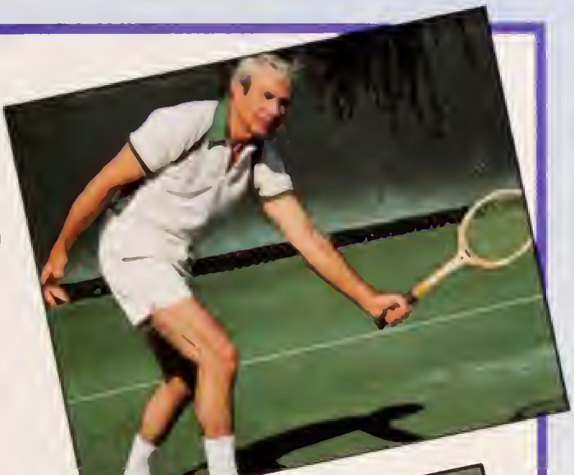

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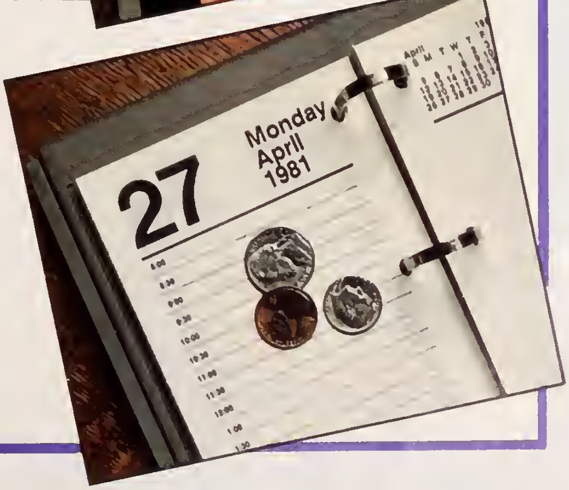

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Subdural Empyema

Caused by infection of preexisting subdural hematoma

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Subdural empyema is a fulminant acute or subacute infection of the cerebral subdural space. The organisms commonly involved are aerobic and anaerobic streptococci and staphylococci. The usual sources of infection are paranasal sinusitis, otitis, meningitis, open head injury, and intracranial surgery. Hematogenous infection of a preexisting subdural hematoma is a very rare cause of subdural empyema. We present a case in which an unusual causative organism, *E. coli* (*Escherischia coli*), seeded a chronic subdural hematoma and resulted in subdural empyema.

Case report

A 70-year-old man was admitted for the first time to the Queens Hospital Center on September 8, 1978, following a generalized tonic-clonic convulsion, during which he sustained a closed head injury. There was no previous history of episodes of loss of consciousness, alcoholism, head trauma, or other medical illness. Findings on general and neurologic examinations, x-rays of the chest and skull, and EEG (electroencephalograms) were normal. He was discharged three days later on no medication. An isotope brain scan three weeks after discharge revealed increased uptake bilaterally along the cranial rim consistent with bilateral small subdural hematomas. Subsequently, the patient experienced frequent right-sided headaches.

On July 22, 1979, he was readmitted with a three-week history of polydipsia, polyuria, and polyphagia, in addition to the right-sided headaches. Aside from a temperature of 38.9°C., physical examination findings were normal. There were no meningeal signs. Laboratory studies revealed a peripheral WBC (white blood cell) count of 15,300 per cubic millimeter 90 percent of which were polymorphonuclear leukocytes, serum glucose 954, BUN (blood urea nitrogen) 60, creatinine 1.2 mg. per deciliter, 4-plus sugar and 3-plus acetone in the urine, and 10 WBC per high power field on urinalysis. Urine culture disclosed greater than 100,000 colonies of *E. coli* that were sensitive to the entire spectrum of antibiotics tested. Findings on two blood cultures were negative. The patient was treated with ampicillin for two weeks and his diabetes was controlled with insulin. Repeat urine cultures gave negative results. He became afebrile within three days and was discharged on August 5, 1979, asymptomatic except for periodic right-sided headaches.

The patient continued to have right-sided headaches and on September 9, 1979, was admitted for the third and last time because of left-sided weakness of three weeks' duration. There was no history of recent head trauma, fever, or symptoms of sinusitis or otitis. Findings on general examination were normal in all respects. There was no fever or nuchal rigidity. The patient was alert and oriented in all spheres. Funduscopic examination findings were normal. A left homonymous field defect to form and color was readily elicited on gross confrontation. There was a left hemiparesis including the face, as well as a left hemisensory deficit to pinprick and light touch. Left-sided hyperreflexia and a left Babinski sign were found. Laboratory studies revealed a peripheral WBC count of 5,900 per cubic millimeter with a normal differential, a sedimentation rate of 104 mm. per hour, with normal blood chemistries and urinalysis. Findings on ECG and x-ray films of the chest, skull, and sinuses were normal. Blood and urine culture results were negative. Lumbar puncture revealed clear, colorless fluid under normal pressure. There were no cells. The total protein was 79 mg. per deciliter and the glucose was 54 mg. per deciliter. Cultures for all organisms, including fungi, were reported as no growth. EEG (electroencephalogram) showed low amplitude left fronto-parietal delta slowing. Isotope brain scan demonstrated a markedly increased rim uptake diffusely on the right cerebral convexity. CT (Computerized tomography) with contrast material showed a large hypodense right cerebral subdural collection with a prominent membrane and a marked shift of midline structures to the left (Fig. 1). The patient remained alert and oriented.

At surgery, copious amounts of foul-smelling green pus were aspirated from the subdural space through two right fronto-parietal burr holes. A thick underlying subdural neomembrane was seen. Intravenous antibiotic therapy was instituted. Cul-

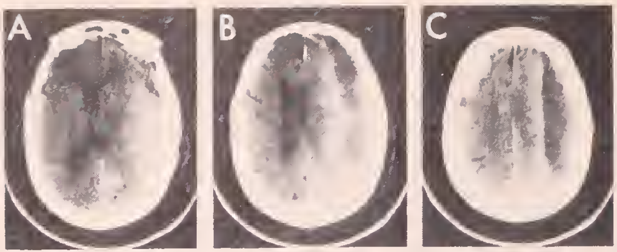

FIGURE 1. Admission CT scan after intravenous injection of contrast material, demonstrating large right cerebral subdural collection with prominent neomembrane (B,C) and marked shift of midline structures to left (A).

tures of the subdural pus revealed *E. coli,* sensitive to the entire spectrum of antibiotics tested. Ten days postoperatively, 30 more cubic centimeters of pus were aspirated from a bulging operative site, and culture of this material also demonstrated *E. coli.* Repeated aspirations, one and two weeks later, revealed serosanguineous sterile fluid. At the time of his discharge, October 25, 1979, five weeks after surgery, the patient's headaches had completely resolved and only a mild left hemiparesis and a left homonymous field defect to color persisted. Repeat CT scans, with and without contrast material, two months after surgery, demonstrated a small right cerebral subdural collection with an enhancing membrane but no shift of midline structures (Fig. 2). As of January, 1980, the patient remains asymptomatic; only a mild left hemimotor impairment can be elicited on examination.

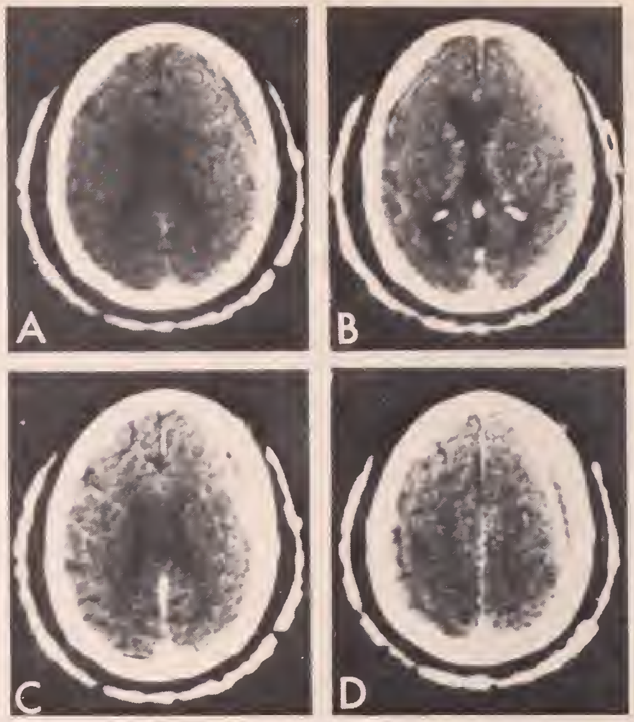

FIGURE 2. CT scan five weeks after surgery before (A) and after (B,C,D) intravenous injection of contrast material; small residual right cerebral subdural collection with enhancing neomembrane (B,C,D); no shift of midline structures.

Comment

Early in this century, otitis media was the predominant source of infection in subdural empyema.[1] Since the 1940s, however, most authors have emphasized paranasal sinusitis as the most important predisposing factor leading to infection of the subdural space.[1-3] The great majority of reported cases of subdural empyema result from otorhinologic infection.[1-6] Less-common sources of infection include meningitis, open head injury, and neurosurgical wounds.[3-6] There are only two prior reported cases of hematogenous dissemination of a systemic organism to a preexisting subdural hematoma. The first was Genest, Bingham, and Hamilton's[7] 35-year-old soldier who developed bilateral *Klebsiella* subdural empyema four months after sustaining severe closed head trauma. In the interim, he had frequently been febrile with multiple urinary tract infections and required multiple urethral dilations. The authors stated "it is reasonable to assume that the urethral dilations produced a *Klebsiella* bacteremia and subsequent implantation into bilateral subdural hematomas."[7] Although the preexistence of subdural hematomas was not proved, the evidence for this hypothesis is good. The second report was Coonrod and Dan's[8] 53-year-old alcoholic man with streptococcal subdural empyema on one side, and a chronic subdural membrane on the other side. In view of the history of alcoholism, the nature of the infecting organism and the presence of bilateral subdural membranes, only one of which was infected, the authors "suggest that this patient had hematogenous seeding of a chronic subdural hematoma."[8] However, the absence of an obvious systemic infection, the failure to mention the spinal fluid findings, and the assumption that an alcoholic patient must have had a preexisting subdural hematoma, even though it was never demonstrated, raise serious doubts about this hypothesis. This case must be considered unproved and at best putative.

Other authors have attempted to document hematogenous spread of infection to subdural hematomas, but close analysis does not support these claims. Clifton and Werner's[9] patient with bacteremia and bilateral subdural empyema also had bacterial meningitis.[9] Torres and Yarzagaray,[10] and Weinman and Samarasinghe[6] each reported three cases of infected subdural hematomas in which the empyema developed after neurosurgical evacuation of a subdural hematoma. Hitchcock and Andreadis[5] provided no clinical details about their presumed case. Thus, if one is careful to eliminate cases with coexistent meningitis, recent neurosurgery, or insufficient documentation, there is only one definitive prior case report of subdural empyema resulting from hematogenous seeding of subdural hematomas, but the organism was *Klebsiella.*

The evidence supporting hematogenous dissemination of systemic infection to a subdural hematoma in the present case is unequivocal. Head trauma sustained during a generalized convulsion, bilateral rim uptake on isotope brain scan three weeks later, persistent headaches, and the thickened chronic subdural neomembrane seen on computerized axial tomography scans and at surgery, all indicate a preexistent subdural hematoma. The growth of *E. coli* organisms, with identical antibiotic sensitivities from the earlier infected urine and the later subdural collection, confirms that the urinary tract infection, with fever two months before the present admission, was the systemic source of infection. Finally, there is no evidence for any of the common sources of subdural empyema, such as otorhinologic disease, meningitis, open head trauma, or prior neurosurgery.

The organisms commonly responsible for subdural infection are streptococci, staphylococci, and anaerobic bactera.[11] There are only seven other prior reported cases of *E. coli* subdural empyema. Hitchcock and Andreadis[5] reported two cases in which multiple organisms, including *E. coli*, were cultured from subdural pus collections. Farmer and Wise,[12] and Kaufman, Miller and Steigbigel[3] each presented one patient with concomitant *E. coli* meningitis and subdural empyema. Three cases of *E. coli* subdural abscesses without an obvious systemic source have also been reported.[4,13,14] Our case is the first in which *E. coli*, in pure culture from a documented systemic source without coexistent meningitis, was the causative organism of subdural empyema.

The clinical picture of subdural empyema can be divided into three symptom groups: (1) signs of infection, (2) focal neurologic signs, and (3) signs of increased intracranial pressure. Our patient had no fever or leukocytosis. Compilation of data from the major reviews of subdural empyema reveal that 95 percent of patients had fever, 96 percent had leukocytosis, and 99 percent had at least one of these two signs.[1–6,12,15] The only sign of inflammation in this case was the sedimentation rate of 104 mm. per hour. Most reports do not mention the sedimentation rate, but Weinman and Sarmarasinghe[6] state that all 47 of their patients with subdural empyema had sedimentation rates over 100 mm. per hour. This emphasizes the importance of the sedimentation rate in the evaluation of patients with neurologic disease. Signs of focal cerebral dysfunction are present in over 80 percent of patients with subdural infection[1–6,12,15] and dominated the clinical picture in the present case. While our patient was alert and oriented throughout, altered levels of consciousness are reported in over 80 percent of cases of subdural empyema.[1–6,11,14] Thus, in addition to an unusual source of infection and an unusual causative organism, the present case had a distinctly unusual clinical picture without fever, peripheral leukocytosis, or signs of increased intracranial pressure.

Summary

Hematogenous spread of infection to a subdural hematoma is a very rare cause of subdural empyema. A patient is reported in whom an unusual organism, *E. coli*, seeded a chronic subdural hematoma resulting in subdural empyema. This is the first reported case of subdural empyema in which *E. coli* in pure culture from a documented systemic source without coexistent meningitis was the responsible organism.

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Triad of Neoplasms

Leiomyosarcoma, functioning extra-adrenal tumors, and pulmonary chondroma

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The triad of gastric leiomyosarcoma, functioning extra-adrenal tumors, and pulmonary chondroma is rare. There are 16 reported cases which showed two or more of these three neoplasms.[1] This syndrome appears to affect predominantly females; 15 of these 16 reported patients were females.

We report the second male patient known to have two of these three types of neoplasms.

Case report

A 21-year-old white male was admitted to the Long Island Jewish-Hillside Medical Center with a history of a mass in the right side of the neck of one year's duration. Two months before admission he developed persistent hoarseness and mild shortness of breath following an episode of sore throat. Three years previously he underwent partial gastrectomy for a leiomyosarcoma of the stomach. Results of physical examination were normal except for left vocal cord paralysis and a moderately tender mass in the right side of the neck. Results of laboratory work, electrocardiogram, and chest x-ray were all normal.

Excision biopsy of the mass under general anesthesia was scheduled. Premedication consisted of secobarbital 100 mg., meperidine hydrochloride 50 mg., and scopolamine 0.4 mg. administered intramuscularly one and a half hours prior to induction of anesthesia, which was accomplished with thiamylal sodium 200 mg. intravenously. Orotracheal intubation was performed after intravenous administration of succinylcholine chloride 40 mg. Anesthesia was then maintained with nitrous oxide, oxygen, and enflurane. The patient was positioned with head rotated to the left and neck slightly extended. While the surgeon was palpating the mass, the heart rate decreased to 46 per minute and the blood pressure decreased to 60/45 mm. Hg from a previously stable 110/70 mm. Hg. The blood pressure and heart rate returned to normal after the pressure on the mass was released. Surgery was started and during dissection of the superficial tissues severe bradycardia occurred followed by a brief asystole of about 3 seconds. Sinus rhythm returned spontaneously after manipulation of the mass was stopped. At this point, a presumptive diagnosis of carotid body tumor associated with HCSR (hyperactive carotid sinus reflex) was made. The surgical wound was closed and patient returned to the floor via the recovery room for further work-up of the tumor. The diagnosis was confirmed with an angiogram which also showed a mediastinal mass, probably an aortopulmonary paraganglioma.

Two months later he was returned to the operating room. Anesthesia was induced and maintained as previously. The area of the carotid body tumor was infiltrated with a 1 percent lidocaine hydrochloride solution. The carotid body tumor was then excised along with the carotid artery using a Javitz shunt. Continuity of carotid arteries was restored with a gortex graft. Soon after the removal of the tumor, the blood pressure increased to 200/120 and the heart rate to 130 per minute; this was controlled by propranolol 1.5 mg. intravenously given in divided doses. Persistent hypertension in the postoperative period was controlled with sodium nitroprusside drip, which was gradually changed to intravenous and then oral methyldopa. After 13 days, the patient was discharged taking no medication.

Five months later, he was readmitted with classic clinical symptoms of pheochromocytoma. Serum catecholamine levels and other work-up confirmed the diagnosis of right adrenal pheochromocytoma. He was prepared as an outpatient and later as an inpatient with oral phenoxybenzamine hydrochloride and propranolol. In the operating room, after appropriate monitoring was started, intravenous sedation with diazepam 10 mg. and droperidol 5 mg. was given. He developed severe hypertension and tachycardia with blood pressure of over 300 mm. Hg systolic and heart rate of 135 per minute. These were controlled with large doses of phentolamine hydrochloride, propranolol, and sodium nitroprusside. Surgery was cancelled at this time due to inadequate control of blood pressure, and the patient was transferred to the intensive care unit where he was further treated with oral phenoxybenzamine and propranolol. Subsequently, the adrenal tumor was removed without incident and without the need for hypotensive agents intraoperatively. Since then the patient has developed a glomus tumor of the ear, probably functional, that has not yet been removed. He is being maintained on oral phenoxybenzamine and propranolol.

Comment

Occurrence of multicentric pheochromocytoma in a patient is well known. However, the triad of gastric leiomyosarcoma, extra-adrenal paragangliomas, and pulmonary chondroma is rare.[1] Our case represents the second male patient known to have these multiple tumors. Also, this case illustrates another manner in which carotid body tumors may appear and be discovered under anesthesia: that is, as a hyperactive carotid sinus reflex. Such an association has been rare.[2] Weiss and Baker[3] have defined and classified carotid sinus syndrome in detail and repetition here would be unnecessary. During carotid body surgery or other neck surgery, HCSR may lead to serious arrhythmias, hypotension, and cardiac arrest. Early reports attribute some of the anesthetic deaths to HCSR.[4] We have, in another patient, seen severe bradycardia due to pressure on the carotid sinus from the head strap during mask anesthesia. The HCSR can be blocked simply by infiltrating the area surrounding the carotid sinus with a local anesthetic.

A hypertensive crisis may follow excision of the carotid body[3,5] due to denervation of the carotid sinus. This hypertension may persist for days or weeks. Smiley et al.[5] have suggested that in man the carotid sinus receptors are dominant over the aortic receptors and that in case of ablation of the carotid bodies, time is required by other receptors for "resetting" the abnormal responses. Similarly, the carotid bodies are considered to be dominant over the aortic bodies in controlling the heart rate.[6]

Local, regional, ether, intravenous narcotics, enflurane, neuroleptanesthesia, and hypothermic-hypotensive anesthesia have all been used successfully during carotid body and sinus surgery. The technique and the anesthetic agent to be used depend largely on the knowledge of the following facts: size and extent of the tumor, tumor-vessel relationship, whether or not the tumor is functional, intraoperative use of an external vascular shunt, and collateral circulation. The basic principles are the same as for carotid artery surgery for carotid artery insufficiency. Patients with functional tumors should be prepared with alpha- and beta-adrenergic blocking drugs. Intraoperative considerations for these patients are the same as for those with pheochromocytomas.

The use of droperidol in patients with pheochromocytoma may result in paradoxical hypertension[7] by an unknown mechanism. This is also evident in our case although such a reaction was absent in a case reported by Newland and Hurlburt.[8] We feel, however, that the use of droperidol in these patients is best avoided.

Because of the possibility of multiple unrecognized pheochromocytomas, in patients with the triad discussed here, the possibility of intraoperative hypertensive crisis should be kept in mind even after the carotid body tumor has been removed.

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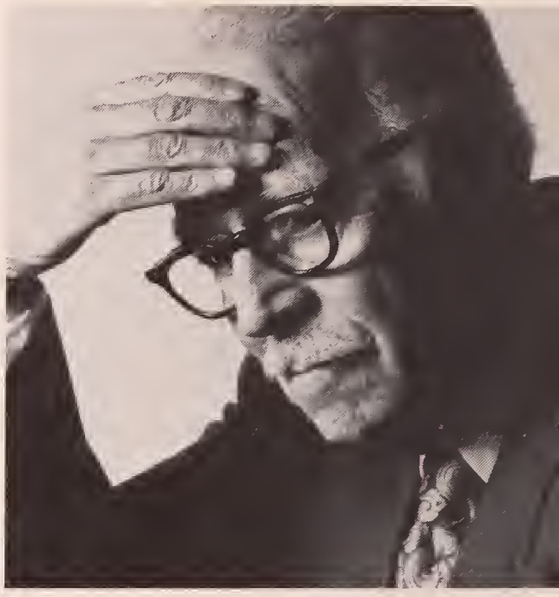

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WARNINGS: Data supporting the use of nitrites during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety.

PRECAUTIONS: Use with caution in patients with glaucoma. Tolerance to this drug, and cross-tolerance to other nitrates and nitrites may occur.

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Prevention of Medication Error

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Errors in drug administration to patients in the hospital occur frequently enough to represent a possibly serious iatrogenic problem.[1-7] Hospital errors in administering medications occur in one out of every six to seven times medication is given.[6] These errors are said to account for nearly one half of all the accidents that happen to hospitalized patients.[8]

Personal observations or oral reports of inadvertently incorrect drug administration suggest to the authors that a small group of common packaging factors may contribute to these accidents.

This report enumerates several representative numbers of drugs that have been wrongly administered, and suggests that packaging or labeling similarity of drugs which have different functions may have contributed to these preventable errors.

Informal reports of medication errors described within several hospitals of the New York University Medical Center were investigated for a period of four years, 1974 to 1978. The pharmacies of three medical school-affiliated hospitals were looked into and similar-appearing drugs were collected for examination. No attempt was made to insure that all incidents were included.

Literature on medication error was reviewed. Collection of data was done through personal contact with physicians, nurses, pharmacists, and other health care personnel during nine scientific conventions. The specific area addressed was that of the prevention of medication error.

Results

Tables I through XI and Figures 1 through 5 indicate the results found.

In reviewing incidents and reports of errors in administering medications, it became apparent that errors were made because of similarity in size, shape, or color of containers holding markedly different drugs,[22,24,25] difficulty in reading labels, confusing appearances of container packaging of the same medication, as well as failure to read the label.

Recommendations

In view of the substantial amount of evidence gathered regarding this potentially serious iatrogenic problem we are submitting the following list of recommendations which we feel should be taken into consideration:

1. A national and, better still, an international labeling quality standard should be developed.
2. Close cooperation between regulatory agencies, pharmaceutical manufacturers, pharmacists, nurses, physicians and other health care professionals concerning drug labeling and packaging. The current communication gap predisposes to making errors. Everyone involved should be thoroughly advised of any change in labeling and packaging of any medication initiated by any person. For example, when the manufacturers change their usual practice of labeling or packaging of a product, all users and potential users should be thoroughly informed of the change. When a hospital pharmacy purchases a new brand of drug with labels and packages unfamiliar to the staff of that institution, all physicians, nurses, and paramedical personnel must be clearly informed of the change.
3. Avoid confusion in the similarity of appearance in the design of drug containers and packages.
4. All ampules, vials, and other drug containers must have distinct labels which can be read easily by a person with 20/20 vision, under normal conditions of light, 20 candle-feet, at a distance of 15 to 20 inches.
5. The names of manufacturers, lot numbers, and expiration dates could be placed on the bottom of the ampules or vials. This would leave room on the side of the ampules or vials for name labels, amount of drug, and concentration of the drug in big, raised letters.
6. Incorporate an organ image, preferably stereoscopic, on the container, which would visually indicate the principal site of the drug's action. Needless to say, this cannot be applied to all medications; some drugs have many and diverse actions. Nevertheless, when adapted to an important selective group of drugs the benefit derived could be substantial, especially for persons with impaired vision where identification by the sense

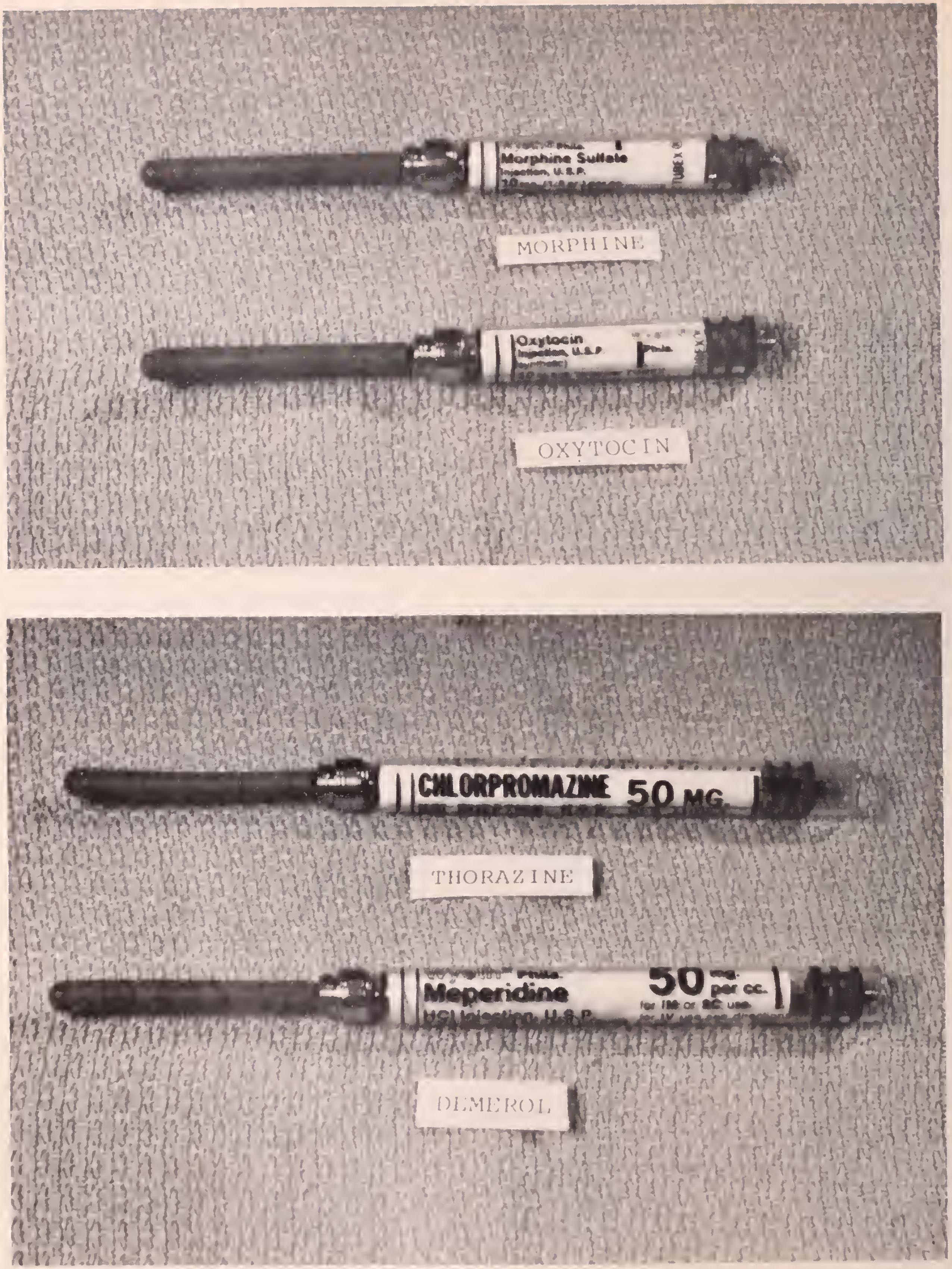
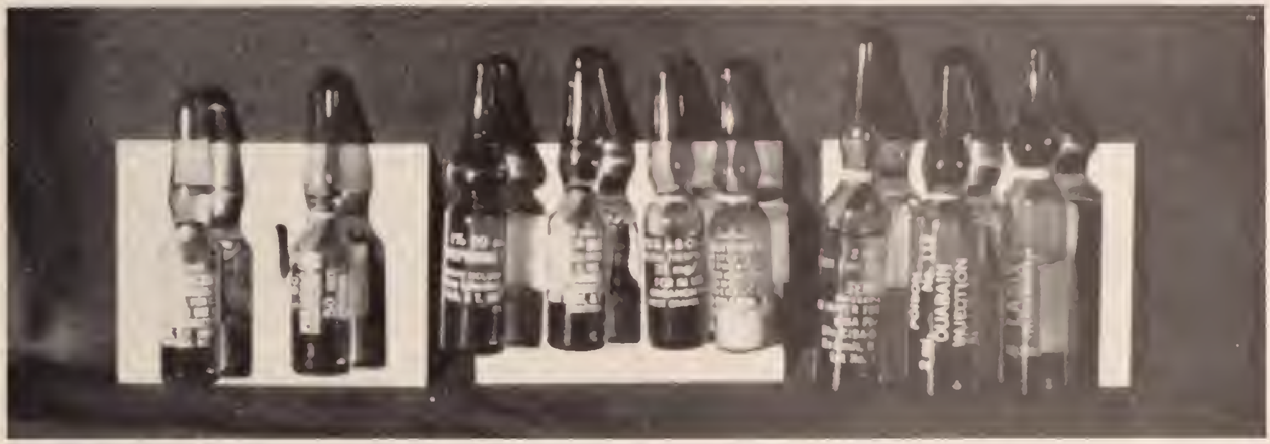


FIGURE 1. Cartridges of similar appearance containing different medication.

TABLE I. Errors and near mishaps due to ampules and vials being similar in appearance[9]

Drug Intended	Drug Given	Consequence
Xylocaine 1 percent	Epinephrine 1:1000	Pulmonary edema, cardiac arrest, death
Diagnostic radiographic contrast substance	Epinephrine; Aramine	Pulmonary edema, cardiac arrest; severe hypertension recovered
Pancuronium	Xylocaine 4 percent for topical anesthesia	Failed to obtain muscle relaxation
Atropine	Epinephrine given as intravenous premedicant	. . .
Xylocaine 4 percent topical	Levoarterenol	Pulmonary edema, cardiac arrest
Prostigmine, intravenous	Aramine	B.P. >300 torr
Aramine (metaraminol)	Gallamine	Apnea and cyanosis
Ephedrine	Epinephrine 100 microgram bolus	B.P. 200/100, Tachycardia, angina, ST segment elevation, T wave inversion



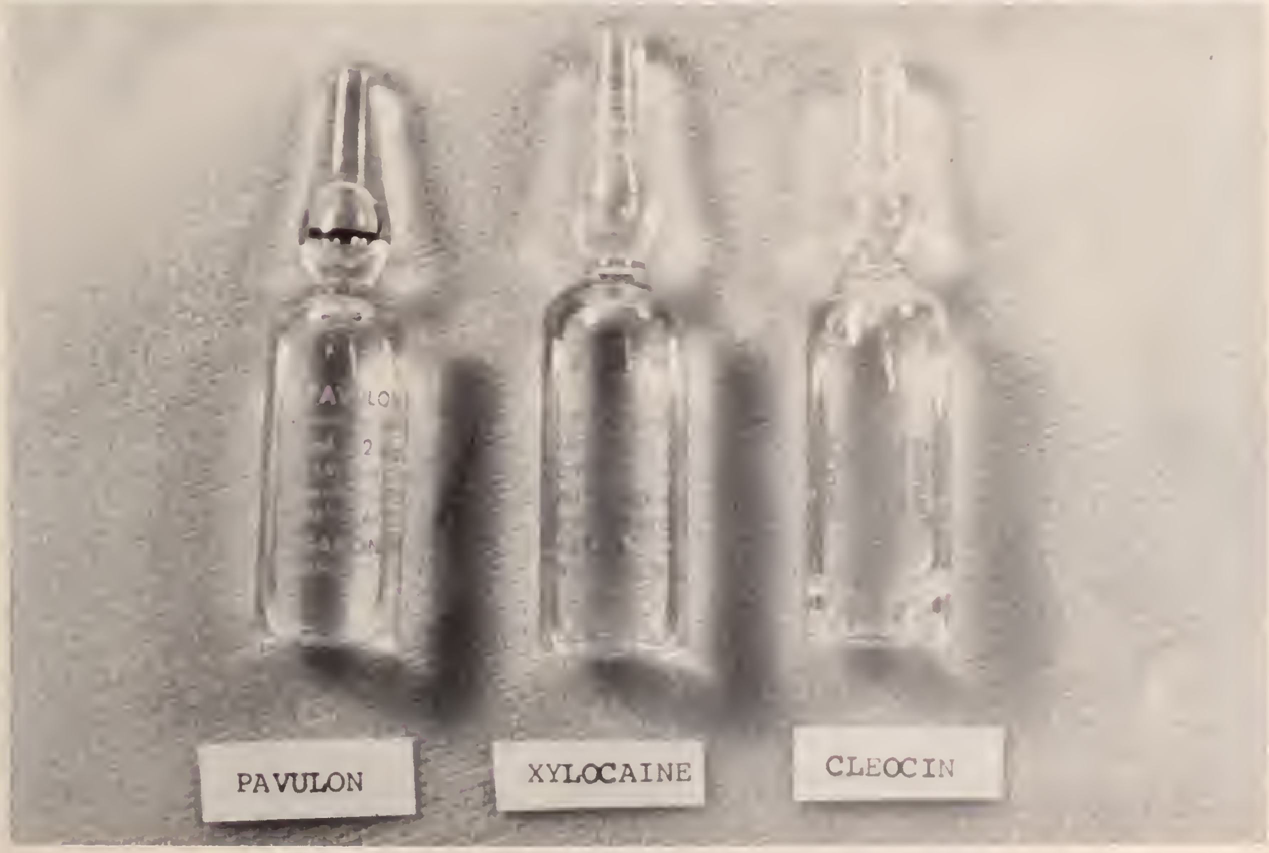


FIGURE 2. Ampules of similar appearance containing different medications.

TABLE II. Near mishaps

Drug Intended	Drug Almost Given
Furosemide (during transurethral resection of prostate)	Phenylephrine
Protamine	Sodium morrhuate
Vitamin K	Inderal
Marcaine 0.25 percent	Mannitol 20 percent
Ergotrate	Phenylephrine
Pitocin	Pitressin
Atropine	Xylocaine
Succinylcholine	Pronestyl
Xylocaine 1.5 percent (for epidural anesthesia)	Mannitol 20 percent

TABLE III. Medication errors involving vials of similar appearances[9]

Drug Intended	Drug Given	Consequence
Succinylcholine	Heparin	Reversed with protamine
Curare	Edrophonium	No muscle relaxation, excessive salivation
Heparin during cardiopulmonary bypass	KCl	Cardiac arrest and resuscitated successfully
Sodium bicarbonate during resuscitation from cardiac arrest	Sodium pentobarbital 600 mg.	Prolonged sleep

of touch is very helpful.[23] By the same token, varying the size and shape of drug containers for selected groups of important medications can also facilitate identification by one's sense of touch.

7. Pharmacists should visually scan their formulary to eliminate similiar-appearing containers and labels where possible.[22,24,25] Beware of drugs with names which sound alike and look alike.[17–19,26]
8. Read the labels carefully yourselves. Do not rely on the word of others.
9. Provide adquate lighting, facilities, and magnification equipment for reading of labels at all locations where drugs are packaged, stored, dispensed and administered.
10. Syringes should be labeled carefully and clearly after filling with medication.[11–13]
11. Special care given to thoroughly shake and massage plastic bag to insure thorough mixing of medications added to infusion containers, in particular the nonrigid plastic bags, to avoid administering a disastrous overdose.[27]
12. When medications are added into infusion bottles or bags,[27] a conspicuous sign with big letters, "MEDICATION ADDED," for example: "VASOPRESSOR ADDED," or "HYPOTENSIVE AGENT ADDED," or "MUSCLE RELAXANT ADDED," should be hung by the side of the infusion container so that it can be easily read from a distance of 30 feet away. Death has been caused by infusion of unrecognized succinylcholine solution. Hypertensive crisis and pulmonary edema have been produced by infusion of

TABLE IV. Errors involving intravenous infusions

Solution Intended	Drug and Amount Given	Consequence	Reference
250 ml. 5 percent	Mannitol 20 percent 250 cc. for child	Death	9
Normal saline	Cetrimide	Cardiac arrest but resuscitated	10
Dextrose in water, 5 percent	5 percent dextrose in water containing Aramine	Hypertension and pulmonary edema	. . .
Dextrose in water, 5 percent	5 percent dextrose in water with unrecognized succinylcholine	Apnea and cyanosis, successfully resuscitated	. . .
Dextrose in water, 5 percent	5 percent dextrose containing unrecognized succinylcholine administered prior to surgery in waiting room	Apnea, cardiac arrest, and death	. . .
Lidocaine 50 mg.	Lidocaine 1,000 mg. as bolus	Convulsion, cardiac arrest	11

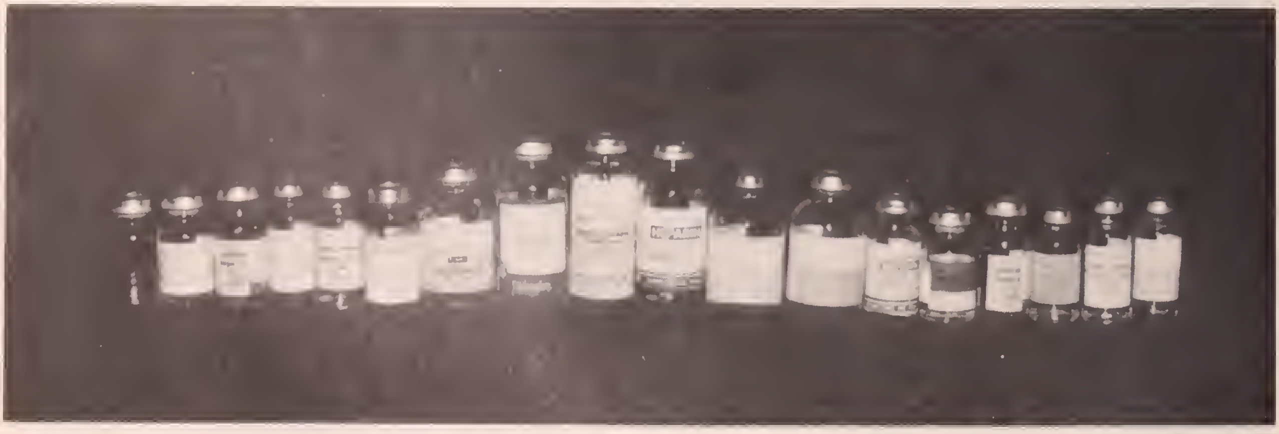


FIGURE 3. Vials of similar appearance containing different drugs.

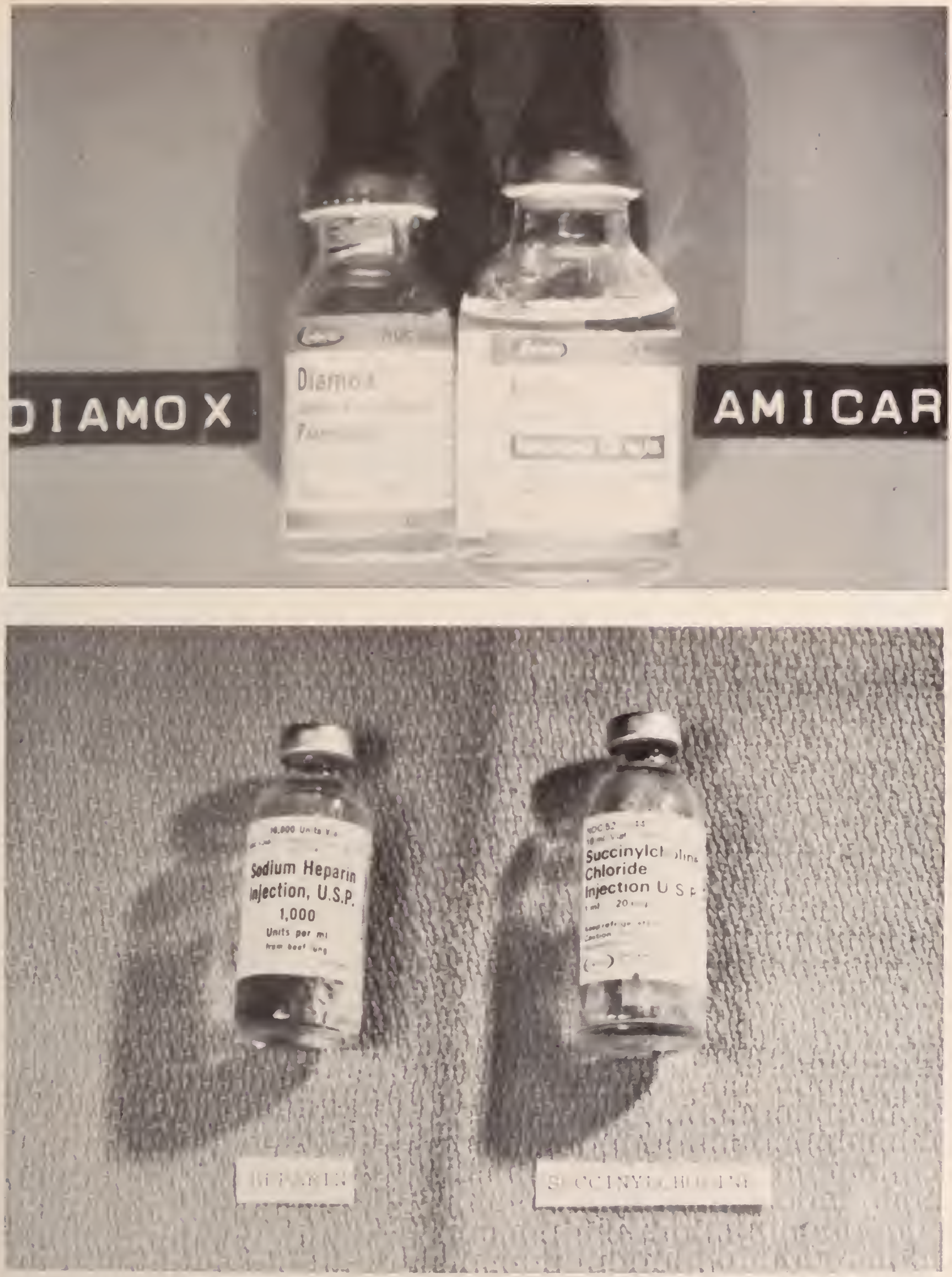


FIGURE 4. Vials of different size and shape containing the same medication (heparin).

TABLE V. Errors involving intrathecal injection

Drugs Intended	Drugs Given	Consequences	References
Tetracaine (for spinal anesthesia)	Demerol	No pathology	9
Tetracaine	Pronestyl	. . .	. . .
Tetracaine	Chloropromazine	Permanent paraplegia	9
Tetracaine	Digoxin	. . .	9
Tetracaine	Mercuhydrin	Paraplegia	9
Tetracaine	Magnesium sulfate	. . .	9
Tetracaine	Ephedrine	. . .	9
Tetracaine	Salyrgan	. . .	9
Tetracaine	Alcohol	Paralysis and death	9
Tetracaine	Pentothal	. . .	9
Xylocaine for epidural anesthesia	Pentothal epidurally	Sedation and incoherence	12
Methotrexate (for treatment of leukemia)	Vincristine	Ascending paralysis and death	13

poorly labeled solutions of metaraminol (Aramine) mistaken as plain solution of 5 percent dextrose in water.

13. Vary the size, shape, and color of tablets or pills according to drug categories. Here again, organ image could be useful such as a sketch of a heart on digitalis tablets, an outline of a kidney on furosemide (Lasix) or other diuretic tablet.
14. Beware of intra-arterial injection of drugs. Before intravenous administration of any drug, make sure that an artery is not mistaken for a vein. Color the extension tubing and stopcock adjacent to skin entry RED for an arterial line and BLUE for a venous line to prevent disastrous inadvertent intra-arterial injection of drugs.[28–39]
15. Never put one drug into the container of another. Death has been caused by accidental intravenous injection of halothane as a result of bottle switching.[40]
16. Avoid fatigue which provides predisposition to the genesis of error.[41]
17. Establish an international registry of medication errors, and their prevention with the World Health Organization. Through this organization health care personnel can learn from the experiences of colleagues all over the world.

TABLE VI. Medication errors involving vaccines[14]

Vaccine Intended	Vaccine Given
Vaccine for cholera	Triple vaccine
B.C.G.	Triple vaccine

TABLE VII. Medication error involving improper labeling of syringes

Drug Intended	Drug Given	Reference
Sodium bicarbonate	Xylocaine	9
Succinylcholine	Aramine	9
Demerol (Tubex)	Morphine	Personal communication
Methotrexate	Vincristine	13

TABLE VIII. Errors involving rectal administration

Substance Intended	Drug Given	Consequence	Reference
Sorbital solution	Formaldehyde mislabeled as Sorbitol	Rectal bleeding	15
Plain enema	Procaine mistaken as enema	Toxicity	16

TABLE IX. Medication error involving eye drops[21]*

Drug Intended	Given in Error	Result
Proparacaine	Hemoccult	Blepharospasm, copious tearing, corneal ulcer

* Manufacturer knows of nine more similar incidents.

TABLE X. Medication error involving tablets

Drug Intended	Drug Taken in Error	Result	Reference
Valium	Lasix	Hypokalema; abnormal EKG	22
Diethylstilbestrol	Valium	Undue sedation	. . .
Cimetidine	Desiccant	Gastrointestinal obstruction requiring surgical removal of desiccant	23

TABLE XI. Mishaps and near mishaps involving medications with similar names

Drugs Intended	Drugs Given	Consequence	Reference
Dilantin for postcraniotomy	Dicumarol	Intracranial hemorrhage; death	9
Marcaine hydrochloride (intercostal nerve block)	Narcan	No pain relief	9
Pitocin	Pitressin	. . .	9
Opium t. camphorated (paregoric)	Opium t. (tincture)	Severely sedated	. . .
Camphor (oil)	Castor oil	. . .	. . .
Amikacin (Amikin)	Amicar (aminocaproic acid)	. . .	17
Diamox (acetazolamide)	Dymelor (Acetohexamide)	Severe hypoglycemia and coma	18, 19, 20

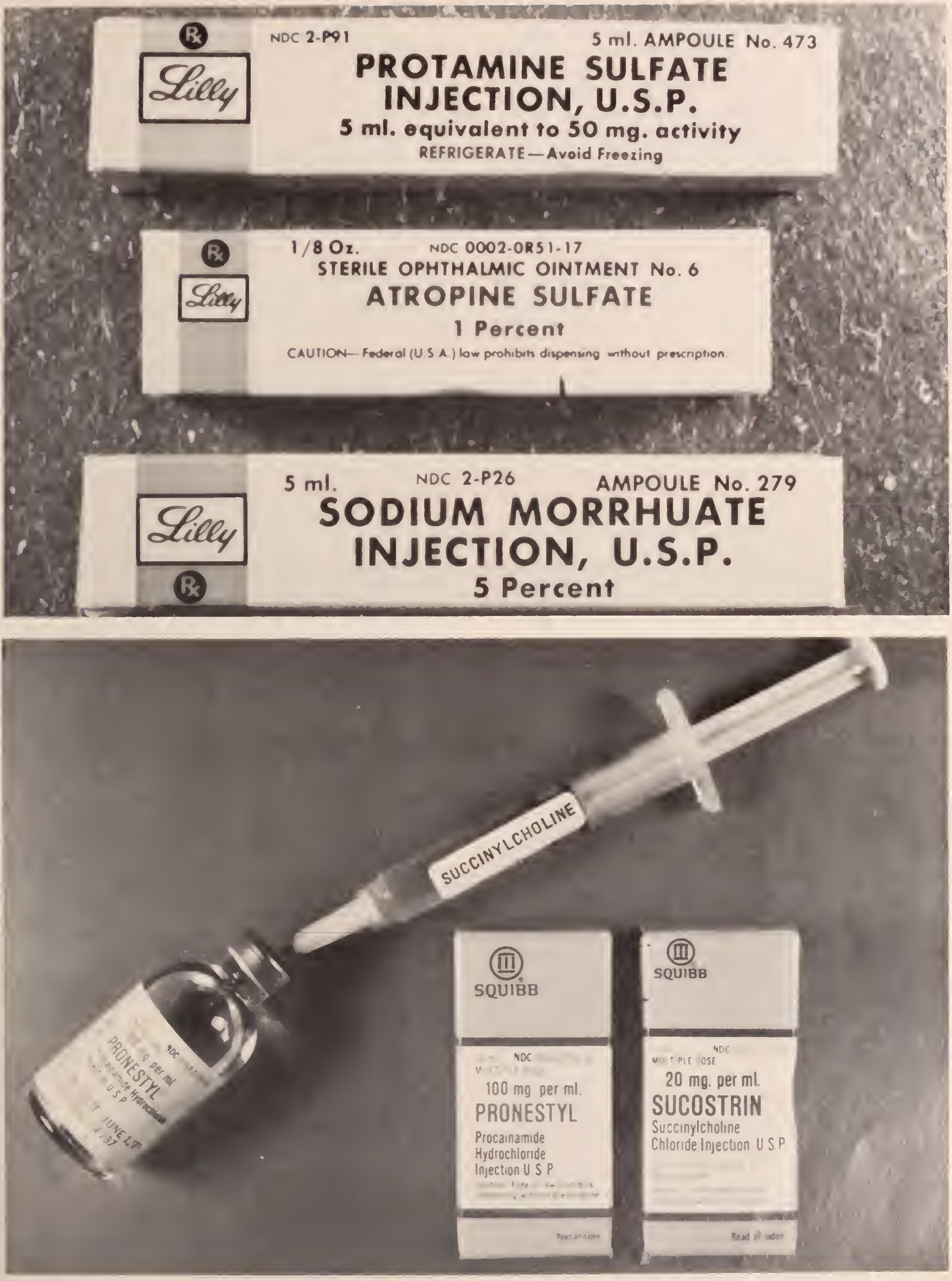

Lilly
NDC 2-P91
5 ml. AMPOULE No. 473
PROTAMINE SULFATE INJECTION, U.S.P.
5 ml. equivalent to 50 mg. activity
REFRIGERATE—Avoid Freezing
Lilly
1/8 Oz.
NDC 0002-0R51-17
STERILE OPHTHALMIC OINTMENT No. 6
ATROPINE SULFATE
1 Percent
CAUTION—Federal (U.S.A.) law prohibits dispensing without prescription.
Lilly
5 ml.
NDC 2-P26
AMPOULE No. 279
SODIUM MORRHUATE INJECTION, U.S.P.
5 Percent
SUCCINYLCHOLINE
PRONESTYL
SQUIBB
NDC
100 mg per ml.
PRONESTYL
Procainamide Hydrochloride Injection U S P
SQUIBB
NDC
MULTIPLE DOSE
20 mg. per ml.
SUCOSTRIN
Succinylcholine Chloride Injection U S P
Read all sides

FIGURE 5. Packages of similar appearance containing different medications.

Summary

Medication error constitutes a serious iatrogenic complication which is ocurring with alarming frequency. Prevention of these errors is possible to achieve. First of all, if persons involved with delivery of medication to patients would take the time to read the labels of the prescribed drugs, the human error of identification would be curtailed. In addition, all the people involved with the package design and styling of a product could prevent many of the errors in judgment if they would eradicate visual similarities in vials, ampules, product names, and other pertinent information. Last, but not least, it should be taken into consideration that any information on the label should be presented in a clearly legible, readable, understandable form.

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The HMO Illusion

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In the past decade, HMOs (health maintainance organization) have been described, promoted, and panegyrized by the Federal and the state government and health economists, as a Utopian panacea for the "ailing health delivery system" of this country. Is this an illusion?

Implementation of HMOs

The term HMO was coined in 1970 by Paul Ellwood, M.D. During the Nixon administration steps were taken to implement the HMO system of health care. What is an HMO? In actual terms, it is a health care organization that provides complete health care service to its consumers for a fixed capitation fee.

Historically, the impetus for the health maintenance organization dates back to 1910 when the unions, dissatisfied with insurance companies and with management in their handling of labor's health complaints, created their own prepaid insurance plan. The unions were not criticizing the physician's care, but desired to establish an adequate health care delivery system for its members.

HMOs limped along until the Ross Loos' Medical Group was organized in 1929 to serve industrial workers and union groups.

The Supreme Court ruling in 1939 further stimulated the growth of the HMO. Under the anti-trust laws, the Supreme Court ruled that physicians are free to organize HMO groups without any restraints from organized medicine.

In 1943, the Health Insurance Plan was organized in New York City. This HMO group continues to function under the aegis of the financially ailing New York City government.

In 1973 Congress passed Public Law 93-22 which authorized the use of public funds to subsidize and support HMO groups. It is almost a decade since the passage of this celebrated law yet very little progress has been made in public acceptance of HMO groups.

At the present time, the health care delivery system consists of traditional or fee for service system, IPA (Individual Practice Association) HMO, HMO group practice (fee-for-service), hospital-based practice, union clinics, and government health institutions.

The traditional system of health care delivery is many centuries old, weathering the test of time and surviving to the present, although on somewhat shaky grounds. Currently the health economists, politicians, and bureaucrats see this system as archaic, unproductive, costly, and ready to be relegated to oblivion.

Many proposals for alternative health delivery systems have been proposed. Today, the American consumer is bewildered and confused by the myriad of editorials, radio/television advertisements, and newspaper articles emanating from HHS (Health and Human Services), state governments, as well as by third-party carriers extolling the virtues of HMOs while denigrating the traditional system. The critics of the traditional system claim it is a monopolistic system, but in reality, the American public has a choice of many different types of health care delivery systems.

The government and some health economists are dissatisfied with the multiple choices of health care delivery. They promote HMOs as the only reliable, cost-saving system of health care. Other health economists favor a competitive system of health care delivery so that consumers will have a choice, believing that this choice will keep the fees for health costs down.

Since 1973 and the enactment of the Federal mandate for HMOs, over 220 HMOs have been formed throughout the country serving 8 million consumers. Most have been funded by HHS through the use of public funds.

Within the past several years, a third-party carrier, Blue Cross/Blue Shield, has been committed to the funding of HMOs. This funding of the HMOs by Blue Cross/Blue Shield is through the use of subscribers' premiums.

The cost to business in the United States in 1978 for employees' health insurance programs was 41 billion dollars. This amount keeps increasing yearly and threatens to reach a point where employers will no longer be able to pay these excessive premiums to health insurance companies. Business is thus seeking alternate levels of care and are taking an active role in determining where their health care dollars are going. One of the alternate levels is the attractive HMO which Blue Cross/Blue Shield considers the health care system of the future.

Economists have stated that HMO groups lower hospitalization costs as compared to the fee-for-service system. However, they recognize that HMOs deal with a younger, healthier public, have a select group of good-risk patients, and rarely provide services to the elderly or chronically ill. Hospitalization costs for this type of consumer would naturally be lower, no matter what health care delivery system was used.

Proponents of HMOs maintain that the cost of health care service is drastically lower than the traditional fee for service. However, is the public aware that HMOs have elaborate buildings, laboratories, x-ray equipment, and must pay the salaries of administrators, physicians, nurses, clerks, and other personnel? Compared to these expenses, the cost in physicians' offices is miniscule. The public is not informed that most HMOs are subsidized through public funds. One of the largest HMO groups in the country has had all the advantages of any prepaid group: has had liberal laws enacted for its benefit, is able to advertise with impunity, and permits its physicians to retain their own private practices. This group is only existing through subsidization. On its own merits, it could not survive. Actually, this subsidy is not as innocuous as it seems. It is the taxpayer who is paying for the government-subsidized HMO. It is the subscriber to Blue Cross/Blue Shield who is subsidizing this health care system through higher premiums. It is the taxpayer who pays.

Proponents of HMOs

Proponents of HMOs contend that the quality of health care is far superior to the traditional system. This contention would be difficult to substantiate. The quality of care can only be judged by observing the physician in his office, at the hospital, and through documentation. What are the criteria that determine and define quality of care?

HMO advocates have maintained that there are legal barriers by the state government to discourage the formation of HMO groups. The facts do not bear this out. In New York, HMOs are encouraged and subsidized by the State government through the use of public funds. The New York State Health Department has a special division to encourage HMO formation.

The Medical Society of the State of New York and its county medical societies have committees working actively to promote and encourage HMO organizations. There are no organized medical societies either objecting to or discouraging HMO organization. Quite the contrary, many groups are encouraged and urged to form HMOs. There is no financial barrier to the formation of prepaid groups because the Federal government, as well as private foundations, is willing to subsidize HMO groups with the use of public funds.

Physicians participating in an HMO group have not been restricted, inhibited, nor have they had their hospital appointments rescinded. In fact, physicians are only too eager to join prepaid groups. There are no social barriers restricting patients or workers from joining an HMO. Today, when negotiating employees' benefits, the government, business, and the unions allow the employee his choice of HMO or fee-for-service system. Despite all the mass media propaganda extolling the virtues of HMO, a vast majority of employees (90 percent or more) continue to prefer the fee-for-service system. Recently in Chicago, the Federal government spent $270,000 on advertising on television, radio, and in print, the virtues of the HMO system, urging the public to accept this form of health care delivery. This was financed by using public funds.

Despite all the promotion by the government and third-party carriers, HMOs have not caught the imagination of the consumer as the optimum supplier of the health needs of this country. In recent months, a number of federally funded HMOs have failed, costing the government (the taxpayer) 17 million dollars. At present, there are 230 prepaid health plans covering only 9 million members. This is indeed indicative of the consumer's preference for the fee-for-service health care system. This is not to suggest that the traditional fee-for-service system is perfect. This type of health care service, despite its flaws, has withstood the test of time and has proved it is a workable system. It does require improvement; it is not perfect. PSROs (professional standards review organizations) and utilization committees are two of the recently developed organizations that were conceived to improve the practice of medicine and to correct medical abuses such as over-utilization, and improve the standard of medical care. Third-party carriers should have review committees to check extravagant and excessive lengths of hospitalization, with the power to object to various claims. Computer printouts of the pattern of physicians' practice is another method of improving the fee-for-service system.

Proponents claim that HMO physicians are subject to greater peer review, utilization, and quality control in their practice of medicine. However, they fail to state who does the utilization review or supervises quality control. At present, this is done by physicians in the same HMO group. This is clearly a conflict of interest. A more objective medical audit by a PSRO group, or an outside utilization peer review group, would enhance the validity of their claim.

Advocates claim that HMOs provide quality care to patients. Opponents state that there is an indifference to patients, long waiting periods to see physicians, poor care during weekends, and superficial examinations. They also claim there is overuse of laboratory and x-ray studies. The number of complaints of dissatisfaction in closed-panel groups, as well as patients leaving such groups, are seldom publicized and neither are the number of malpractice suits.

The subscriber can often be placed in an embarrasing situation if the need arises to change physicians owing to a personality conflict, or for other reasons. The physician, in turn, is often required to submit a written explanation of the subscriber's dissatisfaction.

Proponents claim that the advantages of HMO groups to physicians are:

1. A good salary with pension, benefits, and paid malpractice coverage.
2. Paid vacation time and payment while taking postgraduate medical courses related to their field.
3. Regular working hours with the knowledge that their patients are covered for emergency care at all times.

4. Opportunities for referrals.
5. Immediate access to laboratory and x-ray facilities.
6. Increased utilization of physicians' assistants to provide primary patient care.

For the past decade, government, health economists, and health care planners felt that HMOs would solve the health care crisis in this country. Do these groups feel that through Federal regulations and subsidizations the HMO concept will truly change the health care structure? Do they truly feel that the costs in the health care industry will decrease while inflation continues its unrestrained escalation? Do these groups feel that the high cost of hospitalization is due to the physicians and not to the labor unions demanding higher salaries, the increased cost of commissary and foods, the increased cost of salaries for nurses, and a burgeoning administrative staff with their high salaries? If they truly believe so, they are not being realistic, for in the end it is the taxpayer who is paying and subsidizing the HMOs.

Practical considerations

The public is entitled to high quality medical care. The public is entitled to hospitalization and physician's care at a reasonable fee for an insurance premium that they can afford. They should be assured of freedom from the risk of financial ruin, and have a sense of security in the knowledge that they will receive quality health care. The public is entitled to choose whatever health care plan is suitable to their needs without being forced to join captive medical groups. The public is entitled to comprehensive health care, including catastrophic health insurance. The public is entitled to pay reasonable medical fees and not be subjected to exorbitant fees as charged by some physicians. These physicians charging outrageous fees should be reprimanded by their peers or by the board of censors of the county medical societies in which they practice.

Third-party carriers, such as Blue Cross/Blue Shield, should discourage unnecessary hospitalization by providing coverage for patients' visits and diagnostic work-ups in physician's offices or in private clinics. They should offer a contract that the consumer, unions, or business can afford, containing built-in utilization review practices. At present, these third-party contracts are few. However, if this type of insurance contract is implemented, there would be a dramatic drop in patients' hospitalizations.

The physician, in whatever field he practices, must change his image of an indifferent, impersonal, health care provider and adopt a more humane, caring, and interested approach. Many centuries ago Hippocrates stated, "For some patients, though conscious that their condition is perilous, recover their health simply through their contentment with the goodness of the physician."

The consumer will ultimately decide what health care system will be most suitable, not the government or health economists. *Medical Economics*, March, 1980, remarked that when it comes to the personal touch in health care, fee-for-service physicians were preferred over colleagues working for health maintenance organizations. This was the opinion received from a consumer-group survey conducted in Washington, D.C. Private physicians received the highest mark for accessibility, making patients feel at ease, and even giving advice on disease prevention.

In a democratic society all types of health care delivery systems should be available. Let there be fair competition among the various health care systems, not one (HMOs) that is favored and subsidized by the government.

Summary

In the past decade, HMOs (health maintenance organizations) have enjoyed Federal largess with little or no accountability. The HHS (Health and Human Services), with the use of public funds, has subsidized HMOs throughout the country. On careful analysis and comparing various systems of health care, the American public has not, to this date, accepted the concept and philosphy of HMOs. The traditional system of fee-for-service, with all its faults, still remains as the health care system the majority of Americans prefer.

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Utility of Monitored Electroconvulsive Therapy Apparatus

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Following the early use of unmodified ECT (electroconvulsive therapy),[1] early reports of the frequency of ECT-induced arrhythmias ranged from 8 to 80 percent.[2,3] Subsequently ECT was modified by administration of a short-acting anesthetic, by atropine pretreatment to eliminate vagal tone,[4-6] and by succinylcholine administration to eliminate excessive muscular contraction. The last prevented adequate positive pressure ventilation with oxygen, caused bone fractures and other injuries, and resulted in various hemodynamic effects. Following these modifications, arrhythmias due to excessive vagal tone, sinus bradycardia, and sinus arrests decreased in frequency.[7]

Recently an instrument, MECTA,* has been introduced which permits the accurate application of the electrical stimulus while recording the electroencephalogram and electrocardiogram on a two channel chart recorder. Thus, the on-line chart recording allows the immediate recognition of a missed or completed seizure and also documents any cardiac arrhythmia. This paper reviews our experience with the MECTA (monitored electroconvulsive therapy apparatus) and demonstrates the safety of the procedure.

Methods

The study group consisted of 34 patients who underwent a complete cardiovascular history and physical examination, resting 12 lead electrocardiogram, chest x-ray, and serum electrolyte determination prior to ECT. There were 10 men and 24 women with ages ranging from 22 to 79 years, with an average age of 48 years.

Continuous electrocardiographic and electroencephalographic recordings were obtained prior to ECT, interrupted for 10 seconds at the time of the electric shock, and resumed again for 34 second following the seizure. The electrocardiograms were reviewed and the cardiac rate and rhythm abnormalities were recorded immediately prior and post

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* Monitored Electroconvulsive Therapy Apparatus, manufactured by Customs Systems Associates, Inc.

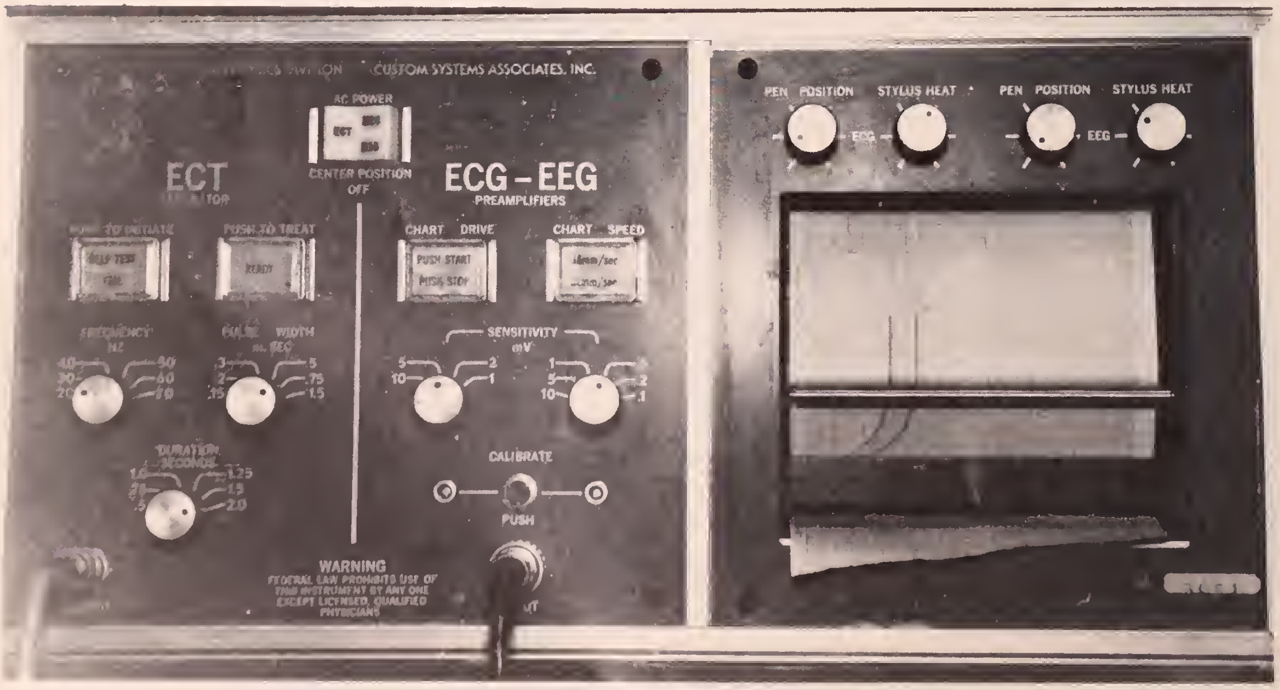

FIGURE 1. Front panel of monitored electroconvulsive therapy apparatus.

ECT as well as 14 seconds, 24 seconds, and 34 seconds after the ECT. Atropine, thiamylal sodium, and succinylcholine chloride were administered prior to ECT. During the seizure, and until spontaneous respirations returned, all patients received 100 percent oxygen administered manually through a nonbreathing system with a Sierra valve.

The ECT stimulus was delivered using the MECTA 70 Herz shock of 1.5 seconds to 2.0 seconds with a pulse width of 1.5 seconds delivered unilaterally to the patient's head. The number of electric shocks per patient ranged from 2 to 14 (mean 6.4). There were a total of 217 episodes of ECT in the series.

The MECTA was utilized to deliver the ECT stimulus. All stimuli parameters including frequency, pulse width, and stimulus duration are displayed on the two channel recorder for a record of the procedure. In addition, a stimulus lead verification makes electrode burns virtually impossible (Fig. 1).

Results

No patient was considered for electroconvulsive therapy if there was any significant cardiac abnormality. Thus, none of the patients in this study had any cardiac symptoms. Two patients had a history of hypertension which was controlled by diuretics. The chest x-ray results were normal in this group. None of the electrocardiograms revealed any evidence of a previous myocardial infarction. For the most part, the electrocardiograms were either normal or showed nonspecific ST-T wave changes.

Each patient had a grand mal seizure which was documented by the electroencephalogram. The mean heart rate prior to ECT was 101.0 beats per minute plus or minus 14.1 S.D.M. (standard deviations from the mean). Immediately after ECT the mean heart rate increased to 110.5 beats per minute plus or minus 15.7 S.D.M. Fourteen seconds after ECT the mean cardiac rate increased to 118.2 beats per minute plus or minus 22.8 S.D.M. At 24 seconds after ECT the mean cardiac rate was 110.5 beats per minute plus or minus 22.7 S.D.M. By 34 seconds after ECT the mean cardiac rate had declined to 107.8 beats per minute plus or minus 20.0 S.D.M. (In all cases the probability value was less than 0.001.)

Cardiac arrhythmias were infrequently seen and were transient in nature. Occasional ventricular premature beats were seen on 14 occasions. Only three of these episodes occurred immediately post ECT. Most were seen 14 seconds after ECT. One patient had six ECT treatments and these were followed each time by occasional episodes of ventricular premature beats. There were no episodes of ventricular tachycardias. There were three brief episodes of supraventricular tachycardias. Two of these episodes occurred immediately post ECT and one occurred 14 seconds after ECT.

No other complications were seen as a result of the ECT.

Comments

Discharge of the autonomic nervous system during electric shock therapy is marked. Thus the adrenergic stimulation may influence the development of both supraventricular and ventricular arrhythmias.

Many workers have reported on the heart rate in unmodified ECT.[8-10] If atropine is not employed, there is a brief fall of the pulse rate followed by a rapid rise to approximately 160 beats per minute. At about the middle of the clonic phase the pulse rate begins to fall and shortly after the end of the seizure reaches levels which may be below control values; at this time arrhythmias are frequent. There is then a secondary but less marked period of tachycardia which gradually subsides over several minutes.[11] It has been shown that the transient early bradycardia can be prevented or minimized by atropine.[9] The pulse rate in electric shock treatment modified by the muscle relaxant has also been studied. There is evidence that the tachycardia is minimized by muscle relaxants.[10]

In our present study the pulse rate increased from a control value of 101 beats per minute to a post ECT value of 115 beats per minute. Recently Troup and his associates[12] studied 15 patients who underwent 25 ECT episodes. They observed a control heart rate of 106 beats per minute which increased to 142 beats per minute after ECT.

Premature ventricular beats have been reported to occur with a frequency of 1 to 40 percent following ECT in patients without heart disease.[8,13] Occasionally, serious ventricular tachyarrhythmias have been documented.[13,14] However, in our study serious ventricular or supraventricular arrhythmias did not occur. Further transient ventricular premature beats were seen on only 14 occasions, and these occurred mainly 14 seconds after ECT. This is comparable to the experience of Troup and his coworkers.[12] These workers reported that there was no significant difference between the frequency of premature supraventricular or ventricular arrhythmias before or following ECT.

Richardson and his coworkers[13] observed that a given patient tends to have the same type of arrhythmia after each shock therapy. It is of interest that one patient in our study had six ECT treatments and these were followed each time by episodes of ventricular premature beats.

Thus, autonomic stimulation produced by ECT did not induce significant arrhythmias in our patients. The possible antiarrhythmic role of the premedication used is unknown. Further, the role played by the various psychotropic drugs is unknown. Some of these agents have been implicated in producing serious ventricular arrhythmias or even death.[15] However, these drugs have complex effects, and some of the agents have been shown to be antiarrhythmic.[16]

The patients in our study were essentially free of cardiovascular disease. Similarly, the reports in the literature have evaluated patients without heart disease. Thus, ECT is benign in normal individuals. It is not known if ECT will be as free of complications in patients with significant cardiac disease.

We found the MECTA, which we used throughout this study, to be a dependable, safe, and accurate instrument. The stimulus parameter can be easily selected and the on-line chart recording of the electroencephalogram and electrocardiogram permits scientific documentation of the procedure.

Summary

Recently an instrument has been introduced, MECTA, which permits the accurate application of the electrical stimulus while recording on a two channel chart recorder the electroencephalogram and electrocardiogram. Thirty-four patients (10 males and 24 females, age 22 to 79, mean age 48 years) received electroconvulsive therapy on 217 occasions. Continuous electrocardiographic and electroencephalographic recordings were obtained prior to ECT, interrupted for 10 seconds at the time of the electric shock, and resumed for 34 seconds following the seizure. All patients were taking psychotropic drugs and received atropine, thiamylal sodium, and succinylcholine chloride prior to ECT.

The control mean heart rate was 101.0 beats per minute plus or minus 14.1 S.D.M., and immediately after ECT the rate increased to 110.5 beats per minute plus or minus 15.7 S.D.M. Fourteen seconds after ECT the rate increased to 118.2 beats per minute plus or minus 22.8 S.D.M. At 24 seconds after ECT the rate was 110.5 beats per minute plus or minus 22.7 S.D.M., and by 34 seconds the rate declined to 107.8 beats per minute plus or minus 20.0 S.D.M. (Probability value was less than 0.001 in all cases.)

Occasional transient ventricular premature beats were seen on 14 occasions, mainly 14 seconds after ECT. There were 3 brief episodes of supraventricular tachycardia and no ventricular tachycardia. No other complications were seen. Modified electroconvulsive therapy is an extremely safe procedure. The MECTA is a safe, accurate instrument which enables the psychiatrist to induce a grand mal seizure using less electrical energy (joules) and at the same time record the electroencephalogram and electrocardiogram during the procedure. The on-line chart recording permits immediate recognition of a missed or completed seizure and also documents any cardiac arrhythmia.

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Gnathostomiasis in Oneida County

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In the New York State Journal of Medicine for November, 1979, Stein and Finkelstein[1] report findings on a patient in Westchester County with loiasis. Aside from the intrinsic interest engendered by what is, for New York State, a most exotic disease, there was included a polite admonition for increased alertness to the possibility of additional cases being encountered in this country. Almost simultaneously with the appearance of this article a patient with an equally alien infestation was seen at our hospital.

Case report

The patient, a 16-year-old Laotian girl, first complained of a painful swelling over her right hip two weeks after immigrating to the United States and beginning residence in Oneida County. She had been in a refugee camp in Thailand for the prior six months. The swelling increased in size, and she noted fatigue and felt progressively more ill for several days. When first seen by a physician, physical examination revealed only the painful swelling over the right hip, but the peripheral blood count showed a leukocytosis of 16,000, with 63 percent eosinophils, and she was, therefore, admitted to the hospital. Findings on the remainder of the blood count were normal, as were subsequently obtained routine serum chemistry profile and chest and abdominal roentgen studies. Stool examination showed massive numbers of *Trichomonas,* and treatment with metronidazole (Flagyl) was given. The stools cleared, but the peripheral blood eosinophilia and leukocytosis persisted. The swelling was treated conservatively with hot compresses, but there was no improvement. Attempts at aspiration biopsy were unsuccessful. Several days after admission the swelling appeared to expand in an irregular fashion. It was decided to excise the involved area to establish a diagnosis.

The surgical specimen consisted of an ellipse of skin 3.5 by 2.5 cm. with attached subcutaneous tissue 3.5 cm. deep. Findings on microscopic examination revealed diffuse, intense eosinophilic granulomatous inflammation throughout the tissue and the presence of one large larval nematode (Fig. 1.). Specific identification of the worm by the local pathologists was not possible, and the material was forwarded to the Center for Disease Control. They, too, were unable to identify the organism and sent the slides to Paul Beaver, M.D., at Tulane University School of Medicine, who promptly recognized it as a *Gnathostoma,* probably *spinigerum* species.

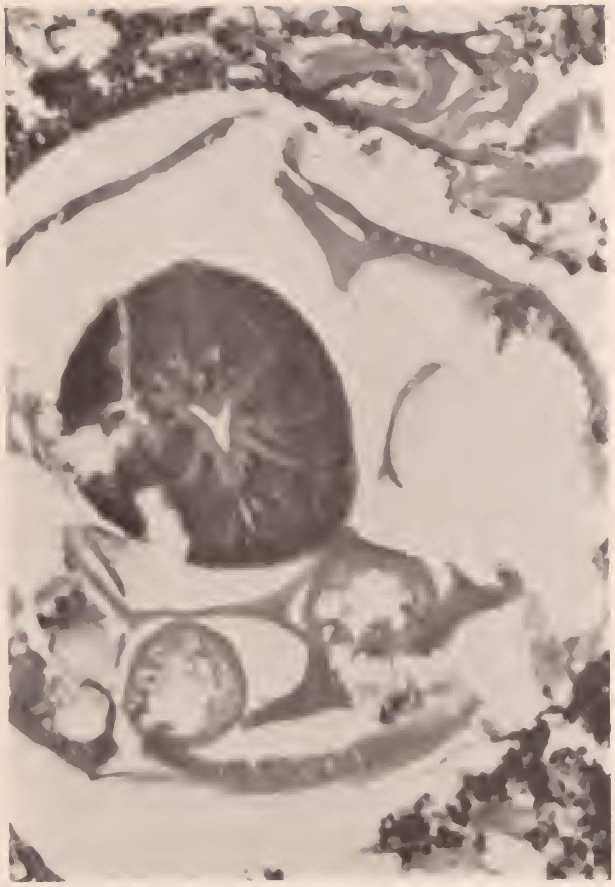

FIGURE 1. Diffuse, intense eosinophilic granulomatous inflammation throughout tissue and presence of large larval nematode.

The patient made an uneventful recovery from the surgical procedure. It was decided that the excision of the parasite was all the treatment that was required, and she has had no complaints since then.

Four days after excision of the worm, her eosinophilia had fallen to 6 percent. Serologic studies done by the Department of Health of the State of New York laboratories showed a high titer of antibodies for *Toxocara.*

Gnathostomiasis is found exclusively in the Far East and is contracted by eating raw or poorly cooked fresh water fish. The life cycle involves two intermediate hosts, first a crustacean, and second, one of a larger number of fresh water fish.[2] Frogs, snakes, and birds may also serve as secondary hosts. The larvae encyst in the secondary host. Adult worms are found in many mammals, including dogs and cats, in whom they infest the gastrointestinal tract. When the larvae are eaten by man, they do not mature but migrate throughout the body. Migration occurs a few days after ingestion and may be accompanied by fever, vomiting, anorexia, and abdominal pain, all of which may persist for weeks. The general symptoms generally subside with the appearance of the skin lesions. These consist of circumscribed patches of erythematous, pruritic, sometimes painful areas of indurated swelling. They last for varying lengths of time and may disappear only to recur at a different site.

The picture is very similar to the more common cutaneous larva migrans associated with *Toxocara* infestation. However, ocular and cerebral involvement have been reported with gnathostomiasis.

Diagnosis is suggested by the patient's birthplace, eating habits, and by marked eosinophilia. Definitive diagnosis requires the recovery and identification of the worm. Fortunately, this is coincident with treatment which consists of surgical removal of the worms.

This report is primarily an example of a medical oddity, at least so far as geography is concerned. However, because it represents the second such occurrence in a relatively short space of time, it indicates that similar cases will probably be seen in the future. The possibility must also be borne in mind that some of the parasites, introduced into this country during the current large migrations of people, may find it possible to establish themselves permanently in their new environment.

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Nuclear war would be "Last Epidemic," medical leaders will warn president

Leaders of American medicine plan to seek an early audience with the President of the United States to inform him that an atomic war would be the last epidemic our civilization would know.

Howard H. Hiatt, M.D., of the Harvard School of Public Health, Boston, states the hopelessness of attempting to treat survivors of a major nuclear war in an editorial in the November 21 Journal of the American Medical Association. Most of the nation's physicians and hospitals are located in the larger population centers—first targets of the nuclear bombs—and these would be destroyed in the first wave, Dr. Hiatt points out.

There would be very few physicians and hospitals remaining to treat the millions of casualties among those in the fringes of the bombed out cities, and those few would promptly be overwhelmed with the task, he declares.

Says Dr. Hiatt: "An objective examination of the medical situation following a nuclear war leads to but one conclusion: prevention is our only recourse. The consequences of nuclear war are not, of course, only medical in nature. But they do compel us to pay heed to the inescapable lesson of contemporary medicine: where treatment of a given disease is ineffective or where costs are insupportable, attention must be given to prevention.

"Both conditions apply to the effects of nuclear war—treatment programs would be virtually useless and costs would be staggering. Can any stronger argument be marshalled for a preventive strategy?"

Dr. Hiatt's editorial is adapted from a presentation on the medical aspects of nuclear war he made to the AMA Board of Trustees earlier this fall. The AMA leaders agreed that they will ask for an audience with the President of the United States at an early date to present their finding: Medicine will be able to do very little for the survivors of a nuclear war and most of them will die in agony.

Dr. Hiatt details the treatment received recently by a young man hospitalized in Boston with severe burns from an automobile accident. During his hospitalization he received 281 units of fresh-frozen plasma and large quantities of other fluids. He underwent six operative procedures. There was much grafting of skin over the burned areas. He required mechanical breathing equipment, tubes into arteries and veins, and other support. Despite these heroic measures, the man died on his 33rd day in the hospital. "His injuries were likened by the person who supervised his care to those described for many of the victims of the atomic bomb that exploded over Hiroshima."

Society has been reluctant to face the reality of the catastrophe that would follow the use of atomic weapons, Dr. Hiatt declares. "Perhaps so little is said about the catastrophe because it is horrible to contemplate. Surely, so little is said about intervention (medical treatment) because so little that is hopeful can be said.

"If the medical community breaks the virtual silence on this issue, we might help interrupt the nuclear arms race. This in turn might help prevent what could otherwise be the last epidemic our civilization will know."

Dr. Hiatt describes a recent study of the impact of nuclear bombs on Detroit and on Leningrad. One big bomb on the center of Detroit would destroy 70 square miles of the city, bring 250,000 deaths, 500,000 injuries, and widespread fires. Many of the injuries would be burns, with others from blast and radiation. Of the 18,000 hospital beds in and around Detroit, no more than 5,000 would be relatively undamaged. These would accommodate only 1 percent of the injured, and no one could deliver the services required by the burn victim in Boston.

The surviving Detroit and Leningrad physicians would be faced with large numbers of patients with blast injuries, including wounds of body tissue and bone fractures; burn injuries, including surface burns, eye burns, and damage to the lungs; and radiation injuries, including the delayed effects. Severe psychological problems would be widespread.

"If our political and military leaders have based strategic planning on mistaken assumptions concerning the medical aspects of a nuclear war, we have a responsibility. We must inform them and the American people of the full-blown clinical picture that would follow a nuclear attack and the impotence of the medical community to offer a meaningful response.

"If we remain silent, we risk betraying ourselves and our nation."

Cost of Hospital Care and Third Party Payer Reimbursement*

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How best to guide the development of the medical care delivery system has stirred debate for decades, and will undoubtedly continue to do so. In the first third of this century, greatest concern seemed to be focused on improving the quality of medical practice. The Flexner report stressed this crucial issue, and its recommendations led to a wholesale restructuring of the medical education system. In the middle third of the century, emphasis shifted to improving access to medical care. The Hill-Burton program was enacted to reduce geographic inequalities in the availability of care, and Titles XVIII and XIX of the Social Security Act (Medicare and Medicaid) sought to minimize financial barriers to obtaining care. Both of these Federal programs have, in large measure, succeeded in improving access. Emphasis, in the last third of the century, is clearly on cost and mechanisms to contain cost. The brunt of the cost containment focus has quickly settled on the hospital sector, both because hospital care is the largest component of national health care expenditures, accounting for approximately 40 percent of the total, and because hospitals represent the single most-concentrated producers and distributors of medical care; that is, it is easier to focus attention on a few thousand hospitals than on hundreds of thousands of physicians, pharmacies, laboratories, and so forth.

Programs to contain hospital costs have relied heavily on new and tighter hospital reimbursement formulae. It is hypothesized, that if one controls and reduces hospital revenue, a concomitant reduction in cost (expenditures) will ensue. Although the Federal government has modified the structure of the Medicare (Part A) reimbursement formula in an effort to limit reimbursement rate increases, the major cost containment initiatives have been introduced at the state level.

The purpose of this presentation is to clarify some of the issues surrounding hospital economics today. The financial data presented are specific to a large teaching hospital located in New York City (to be referred to as "The Hospital" throughout this article).

To provide a useful frame of reference for this presentation, two cases recently admitted to The Hospital have been selected, and the financial gain (or loss) incurred in rendering care to these two patients forms the basis for the presentation. The case selection deliberately highlights what is considered to be both a relatively complicated and a simple admission.

Patient A is a 48-year-old chronic alcoholic male admitted in August, 1979, from the emergency room with a chief complaint of back pain, nausea, vomiting, anorexia, fever, and chills for four days. His discharge summary notes the following: a primary diagnosis of *Acinetobacter* pneumonia with associated conditions; acute renal failure, sacral decubitus, left antecubital ulcer, bilateral foot drop, and left ulnar nerve palsy. The following operations and/or procedures were performed on this patient during his 67-day hospital stay: bone marrow aspiration and biopsy, intubation, insertion of arterial catheter, insertion of subclavian catheter, insertion of Swan-Ganz catheter, arteriovenous shunt insertion and removal, hemodialysis, flexible bronchoscopy, single thickness skin graft placed left antecubital fossa, and sacral decubitus debridement with flap closure.

Patient B is a 20-year-old male with a history of rheumatic fever, who had previously undergone a mitral valve replacement, and was admitted electively in January, 1980, for left and right cardiac catheterization. The following associated conditions were reported for this patient who was discharged after a three-day stay: atrial fibrillation, status post-drug-associated hepatitis, status post-gonorrhea infection, and status post-tuberculosis (treated).

Charges, reimbursement, and cost

To understand hospital economics, it is necessary to distinguish between the three key concepts of patient charges, reimbursement revenue received, and actual cost of care rendered.

Charges. Patient charges are listed on a bill generated on behalf of each patient, which itemizes in detail all services provided. The charges incurred by patients A and B are summarized in Table I. It is instructive to note that the daily room rate, which reflects room and board, medical, and paramedical charges, covers only a third of the total charges gen-

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* Presented at Medical Grand Rounds, The New York Hospital-Cornell Medical Center, June 12, 1980.

TABLE I. Summary of patient charges

Services	Patient A		Patient B	
	Charges	Percent	Charges	Percent
TOTAL	$44,930.40	100.00	$2,763.00	100.00
Daily rate	$15,544.00	34.60	$726.50	26.29
Operating room	3,010.00	6.70	...	...
Drugs	940.05	2.09	20.00	0.72
Blood service	2,348.75	5.23	52.00	1.88
Laboratory	15,791.00	35.14	386.50	13.99
Radiology	1,981.00	4.41	38.00	1.38
Supplies	35.40	0.08	...	...
Electrocardiogram; electroencephalogram	490.00	1.09	35.00	1.27
Inhalation therapy	2,572.00	5.72	...	...
Rehabilitation medicine	626.00	1.39	...	...
Gifts, telephone, and special meals	146.70	0.33	7.00	0.25
Miscellaneous	1,445.50	3.22	1,498.00	54.22
Date admitted	August 21, 1979		January 10, 1980	
Date discharged	October 27, 1979		January 13, 1980	
Length of stay	67 days		3 days	

erated by patient A. A slightly larger share (35.14 percent) is due to laboratory procedures. Other major expense categories were operating room (6.70 percent), inhalation therapy (5.72 percent), blood service (5.23 percent), and radiology (4.41 percent). In the case of patient B, the major charge was for cardiac catheterization, which accounted for 54.22 percent of total charges. The daily room charge covered 26.29 percent of total charges, and even in this relatively straightforward case, laboratory charges accounted for 13.99 percent of the bill. For reasons that will be evident shortly, there is no direct relationship between the volume and price of services rendered (charges) on behalf of these and other patients, and the amount of reimbursement revenue that The Hospital receives from Blue Cross (Blue Cross and Blue Shield of Greater New York), Medicare, or Medicaid.

Reimbursement. It is important to recognize that not all patient charges are covered by their respective insurance carriers, which are commonly referred to as third party payers. As can be seen from the data presented in the top part of Table II, patient A, insured by a Blue Cross policy entitling him to full coverage for 365 days of hospital care a year, generated $2,554.45 of charges which were not covered by his policy. Of this amount, $2,348.75 was incurred for blood, a service not routinely covered by Blue Cross, $146.70 for television rental and gift shop purchases, and $59.00 for an orthopedic prosthesis (a cane). In the case of patient B, uncovered charges equalled $187.00 and resulted from the annual Medicare-Part A deductible of $180.00 that must be met by the patient, and a $7.00 charge for gift shop purchases. When noncovered charges are generated, a hospital must try to collect them directly from the patient. In some cases, patients do not pay these charges, and uncollectible revenue becomes a bad debt in the hospital's financial accounts. In 1979, The Hospital sustained approximately $2.3 million in bad debts due to inpatient care rendered but not paid for.

TABLE II. Covered and noncovered charges, and reimbursement revenue

Charges	Blue Cross* Patient A	Medicare* Patient B
TOTAL	$44,930.40	$2,763.00
Covered charges	42,375.95	2,576.00
Noncovered charges	2,554.45	187.00
Blood service	2,348.75	...
Gift shop, television rental, and so forth	146.70	7.00
Miscellaneous	59.00	...
Deductible	N/A[†]	180.00
Reimbursement revenue	21,907.66[1]	1,003.38[2]
Reimbursement revenue / TOTAL CHARGES	0.49	0.36

* The Blue Cross and Medicare reimbursement rates differ because each third party payer uses a different formula in determining per diem rates. Furthermore, the Blue Cross rate was for care rendered in 1979, while the Medicare payment reflects a 1980 rate.

[†] N/A = not applicable.

[1] $326.98 per day times 67 days = $21,907.66.

[2] $334.46 per day times 3 days = $1,003.38.

While basing their reimbursement only on covered charges, Blue Cross, Medicare, and Medicaid payments received by hospitals in New York fail to fully cover these charges. As can be seen from the data in the next to last line of Table II, Blue Cross paid The Hospital $21,907.66 on behalf of care rendered to patient A, and The Hospital should receive $1,003.38 for care rendered to patient B. As in many other states, third party payers in New York do not pay charges. Rather, they pay a per diem reimbursement rate based on historical cost, a process that will be explained in a subsequent section of this article. Thus, The Hospital received only 49 percent of its charges for patient A and 36 percent of its charges for patient B. No direct relationship exists in any operating period between the type and volume of services provided and the percent of charges that will be recovered from third party payers.

Cost. It is incorrect to assume, however, that the difference between charges and reimbursement revenue received represents an actual loss to a hos-

TABLE III. Inpatient cost, The Hospital, 1979.*

	Estimated Cost		
Cost Category	Total	Per Patient Day	Percent
Routine care	$60,857,818	$194.58	55.06
Hotel costs	$23,111,823	$73.90	20.91
Medical and paramedical costs	37,745,995	120.68	34.15
Ancillary care	49,672,182	158.82	44.94
TOTAL	$110,530,000	$353.40	100.00

* 1979 inpatient days, 312,762.
The components of each cost category are detailed in Table IV.

TABLE IV. Per diem inpatient cost, by cost center, The Hospital, 1979

Cost Center	Per Diem Cost	Percent of Total Inpatient Cost
Hotel Costs		
Laundry	$ 4.35	1.23
Housekeeping	8.02	2.27
Dietary	20.74	5.87
Administration and general	26.05	7.37
Operation and maintenance of plant	11.10	3.14
Depreciation of building and equipment	3.64	1.03
	$73.90	20.91
Medical and paramedical costs		
Medical records	0.81	0.23
Social service	3.22	0.91
House staff	12.93	3.66
Supervising physicians	7.74	2.19
Nursing	87.71	24.82
Employee health and welfare	8.27	2.34
	$120.68	34.15
Ancillary Costs		
Operating and recovery rooms	$42.62	12.06
Delivery room	3.85	1.09
Radiology	19.79	5.60
Laboratories	40.29	11.40
Drugs	20.78	5.88
Physical therapy	4.88	1.38
Inhalation therapy	3.32	0.94
Medical supplies	15.51	4.39
Recreational therapy	0.99	0.28
Other ancillary services	6.79	1.92
TOTAL	$158.82	44.94

TABLE V. Estimate gain ⟨loss⟩ per case

Revenue	Patient A	Patient B
Estimated cost	$23,677.80[1]	$1,115.22[2]
Reimbursement payment	21,907 66	1,003.38
Difference ⟨loss⟩	⟨1,770.14⟩	⟨114.84⟩
Reimbursement payment/ estimated cost	0.93	0.90

[1] $353.40 per day times 67 days = $23,677.80.
[2] $371.74 per day times 3 days = $1,115.22.

pital. Medicare regulations stipulate that a hospital be paid charges or cost, whichever is lower. Therefore, hospitals always set charges higher than costs. Average inpatient cost per day at The Hospital was $353.40 in 1979; for 1980 it is projected to be $371.74. The breakdown of the 1979 cost statistic into its major component parts is instructive, and is presented in Table III.

Ancillary care costs, encompassing the use of such services as the operating room, laboratories, radiology, and so forth, accounted for 45 percent of total costs in 1979, or $158.82 per day. Routine care costs accounted for 55 percent of total inpatient care costs in 1979, or $194.58 per day. Within the routine care cost category, hotel* costs equalled $73.90 per day and medical and paramedical costs equalled $120.68 per day. The specific cost centers encompassed by each of these cost categories, and the per diem costs incurred by each, are identified in Table IV.

The highest cost centers within the hotel cost category are administration, general, and dietary. Nursing and house staff are the two highest cost centers within the medical and paramedical cost category. Operating, recovery rooms, and laboratories are the highest cost centers within the ancillary care cost category. These six cost centers jointly account for 65 percent of inpatient care per diem cost. A major factor explaining the high administration and general cost is government regulation. It has been estimated that over 50 percent of these costs are incurred to meet various regulatory requirements.[1]

Per diem gain or loss. A comparison of cost and reimbursement revenue received provides the basis for estimating the gain or loss per case for patients A and B. Gain or loss profiles for these patients are presented in Table V. Based on their respective stays, (67 and 3 days) and the year in which hospitalization occurred, it is estimated that it cost The Hospital $23,677.80 to render care to patient A, and $1,115.22 to render care to patient B. Reimbursement payments received on behalf of these two patients equalled $21,907.66, and $1,003.38, respectively. As reimbursement payments were less than estimated cost (93 and 90 percent of estimated costs, respectively), a loss was incurred in the case of each patient.

Third party payer rate setting

A major factor behind hospital operating deficits is the reluctance of Blue Cross, Medicare, and Medicaid to pay the full cost of care rendered to their patients. It is estimated that it cost, on average, $353.40 a day in 1979, to care for patients hospitalized at The Hospital. Net third party per diem payment rates received by The Hospital for inpatient care from Blue Cross, Medicare, and Medicaid respectively, were $326.98, $323.84, and $316.25. Thus, on average, The Hospital lost $26.42 per day in 1979 for care given to Blue Cross patients. Average per diem losses for Medicare and Medicaid patients equalled $29.56 and $37.15, respectively. Only in the case of

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* General hospital costs such as laundry, housekeeping, dietary, and so forth.

TABLE VI. Comparison of expense factors used by reimbursement agencies with actual/projected hospital data

Year	Salary Factor Allowed*	 Actual†	Non-Salary Factor Allowed	 Actual	Combined Factor Allowed	 Actual
	Percent		Percent		Percent	
1980 over 1979	7.20	8.79**	8.00	8.00**	7.51	8.46**
1979 over 1978	7.20	10.12	9.00	13.26	7.89	11.39
1978 over 1977	6.41	8.43	6.59	5.82	6.48	7.35
1977 over 1976	6.15	9.19	5.44	11.60	5.88	10.17

* Allowed: Inflation rate projected by New York State Department of Health.

† Actual: The Hospital experience.

** Estimated.

self-pay patients (that is, patients not covered by Blue Cross, Medicare, and Medicaid) can the hospital expect to fully recover the cost of inpatient care, since such patients are required to pay actual charges incurred. In many inner-city hospitals, the term self-pay is a euphemism for no-pay, and the entire patient bill must be written off as a bad debt.

Third party per diem reimbursement rates fail to cover true costs by design. In New York, Blue Cross and Medicaid utilize the same basic methodology in establishing their rates. The first step in the rate setting process entails grouping hospitals based on three major criteria (1) geography, (2) volume of care rendered, and (3) teaching status. The purpose of grouping hospitals is to limit the cost increase incurred by any hospital in a specified group, to the group average. If costs exceed the group average, any costs in excess of the average are disallowed. Finally, occupancy levels are checked to insure that minimal utilization levels are attained. If they are not, actual patient days (a variable in the reimbursement formula) are inflated to reach the minimal levels specified. Blue Cross and Medicaid then proceed to determine per diem rates based on an extrapolation of allowable historical costs to the present operating period. For example, 1980 rates were determined by taking 1978 actual costs and if applicable, disallowing costs above a group mean or due to low utilization, as previously mentioned. The 1978 cost base was then trended forward (projected) to 1980 by the use of economic indices developed by the rate-setting entity which are supposed to reflect general inflationary factors confronting hospitals.

The use of indices to project current costs from historical data is the major factor behind the gap between Blue Cross and Medicaid per diem rates and actual costs. These indices fail to fully capture the true cost increases confronting hospitals, and can lead to losses even for hospitals that are not confronted with group average and occupancy penalties. The magnitude of this gap is reflected in the data appearing in Table VI. In each of the four periods for which data are presented, actual cost increases exceed the projected and allowed increases.

A different methodology is used by the Medicare program in promulgating its rate. Although the Medicare rate is set on a retrospective basis recognizing actual costs, Medicare pays only for costs actually incurred by its beneficiaries. A case in point is Medicare's recently announced policy of only reimbursing for that part of a hospital's malpractice costs that result from suits brought by Medicare patients. Malpractice awards for Medicare patients are significantly lower in amount than losses for other patient populations because the income potential and life expectancy of Medicare patients are less than the non-Medicare population. Blue Cross and Medicaid do not make up this financial shortfall since they focus on hospital-wide malpractice costs rather than the higher costs incurred for their patients.

In addition to relying on less than full cost reimbursement to contain per diem costs, hospital rate setting agencies are beginning to promulgate new regulatory initiatives aimed at contracting the number of patient days of care rendered, and the nation's stock of hospital beds. One effort in this regard was recently made by New York with the introduction of a new element into the reimbursement picture known as the 80/20 volume adjustment. This adjustment is premised on the hypothesis that 80 percent of hospital operating costs are fixed (that is, invariant in the short run) and 20 percent are variable (that is, related to patient volume). If true, this means that over a small range of volume changes, the cost of rendering care to additional patients is only 20 percent of the hospital's average cost. Consequently, as of 1980, New York will only permit Blue Cross and Medicaid to pay 20 percent of the cost of additional days rendered over the base period, which the state has designated as 1978. Conversely, if a day of care is not rendered, 80 percent of the per diem cost will still be incurred due to staffing and other commitments. Recognizing this, New York permits Blue Cross and Medicaid to pay 80 percent of the cost of these "saved" days (a 1980 patient day level that is less than the base year, 1978, level).

Under such a system, expansion of hospital bed capacity and volume of care can lead to lower average per diem reimbursement for all patients covered by a third part payer, and tremendous financial penalties.

Comment

Insuring a hospital's financial viability in the current cost retrenchment environment is indeed a difficult task. Close cooperation between administration and the medical staff is called for in these trying times. As has been amply documented, physicians are very variable in their use of hospital and outpatient ancillary services and uninformed about the financial implications of their clinical behavior.[2-6] The physician, however, controls almost all of the important expenditures through his power to order the ancillary services billed, and his input into administrative decisions (such as the need for a computerized tomography scanner or an expanded intensive care unit). The first step in ensuring such cooperation is a straightforward dissemination of the financial facts of life to all concerned parties. The need for such information has led to the inclusion of presentations on hospital economics in some medical center grand round programs.[7] Similar steps are called for in other educational settings.

Efforts are also required to identify aspects of hospital operations that can be modified to insure a closer balance between expenses incurred and reimbursement received. There are several areas that physicians can control which are important to the hospital's financial health. Utilization of ancillary services is a major case in point. Under most reimbursement formulae in use today, hospitals do not benefit when excessive tests are ordered. During the time period under consideration, The Hospital did not receive any additional money for the cardiac catheterization performed on patient B, nor any additional money for the $15,791 of laboratory charges incurred by patient A. The Hospital receives the same per diem rate for a patient requiring minimal nursing care and laboratory tests as it does for a very ill patient like patient A.

It is important to recognize that while the per diem rates that The Hospital receives on behalf of Blue Cross, Medicare, and Medicaid patients differ, there is no consistent pattern in the relative ranking of these rates. In 1979, the Blue Cross rate exceeded the Medicare rate, which in turn exceeded the Medicaid rate. In 1980, the Medicare and Medicaid rates exceeded those paid by Blue Cross. Thus, at least in New York, hospitals do not receive significantly less per diem reimbursement from taking care of an indigent patient receiving Medicaid than from patients covered by Blue Cross or Medicare.

Because of the large fixed costs associated with delivering hospital care, it is financially advantageous for a hospital to run at full occupancy. Recognizing this fact, New York State, through its 80/20 rule, is paving the way for a contraction of the hospital sector by paying for costs incurred when a bed remains unoccupied. It is reasonable to speculate, that unoccupied beds will ultimately become decertified beds. The use of the rate setting process to facilitate the restructuring of the hospital industry marks a new departure in the evolving pattern of hospital regulation. An understanding of how hospital reimbursement is set, and the nuances inherent in the reimbursement formula is a definite prerequisite for participation in public policy discussions aimed at promoting cost savings without compromising the quality of care.

Summary

This article focuses on selected aspects of hospital economics. Three key concepts, charges, reimbursement, and cost, are explored and their interrelationships noted. Less than full cost reimbursement is highlighted as a major factor behind mounting hospital deficits. It is further noted that there is no direct relationship between volume and type of services rendered, and reimbursement revenue received. An understanding of these factors is an important first step in the medical staff's participation in hospital policy making.

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The Death of Ivan Ilych

An axiomatic hypothesis

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In very simplistic terms, Tolstoy's* *The Death of Ivan Ilych* deals with the intense emotional stresses and physical sufferings of a 45-year-old magistrate during the last three months of his fatal illness. The tragedy stems from his matrimonial dissatisfactions, a hopeless sense of unalterable isolation, the recognition of the futility and inconsequentiality of his sense of values, and the progressive intractable pain for which physicians can offer no relief.

It is my intention to review the author's 1882 description of the physical problem, in an attempt to define the disorder from the internal evidence of the text. This approach has something in common with a clinical pathological conference, but the only data are the historic records, and there is no final pathologic proof.

However, in the hand of the master, art imitates nature, be it on canvas or on paper; Tolstoy's description of the disorder is so detailed and vivid that it lends itself to this exercise in deduction and extrapolization.

History

The illness begins as a gnawing pain in the side, which is attributed to the bruise sustained in a fall from a ladder; the intermittent pain becomes increasingly frequent and less tolerable.

The past history is unimpressive. He smokes and is a modest wine drinker. There was no cough nor were there any pulmonary symptoms to suggest a smoking-related disorder of the lungs.

Symptoms

There are no gait disturbances to suggest an association with tabes. In its final stages, the pain is described as "gnawing." "It" (his term for the ailment) is so incapacitating as to render him bedridden and cause him to scream out incessantly. Because the pain is not relieved by opium, Ivan Ilych loses confidence in the various physicians and specialists whom he consults. They consider appendicitis, floating kidney, or chronic catarrh, although it is admitted that none of these professionals is certain of the diagnosis.

The pain is associated with rapid emaciation, irritability, pronounced depression and an inability to concentrate on his work; it is aggravated by eating. The incessant pain is relieved only when his legs are held up or suspended on the shoulders of his man servant (psoas relaxation). That alone gives him a better night. Less emphasized symptoms include a malodorous breath, loss of appetite and strength, and a malodorous stool.

At no point in the description of this illness is an inflammatory component suggested by chills or fever. There is no interference with conduit function or nausea, vomiting, abdominal distention, cramps, or urinary dysfunction. There is no mention of extra-abdominal masses and there are no suggestions of pallor or of jaundice.

The persistent gnawing pain in the side, relieved by flexion unassociated with any bowel dysfunction, suggests a retroperitoneal localization of the process.

Comment

The rapid emaciation and anorexia leading to death in three months suggests cancer. Symptoms of malabsorption would suggest impaired vascularity of the small bowel with steatorrhea, such as might go with encirclement of the mesenteric vessels by tumor. Impaired liver detoxification of intestinal gases, such as might be associated with obstruction of the mesenteric veins or hepatic metastases, could produce a bad breath.

The association of these symptoms with depressions and aggravation of pain by eating suggests an origin in the pancreas. The absence of jaundice or pruritis would indicate that the localization is away from the head, that it is in the organ's body.

The entire symptom complex and course suggests that Ivan Ilych was afflicted with a carcinoma of the body of the pancreas.

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* Tolstoy, Leo: The Death of Ivan Ilych & Other Stories, New York City, Signet Classics, New American Library, 1960.

Obituaries

Reuben Moss Cares, M.D., of Fort Salonga, died on December 20 in his 83rd year. Dr. Cares graduated in 1928 from Long Island College Hospital. He was co-chief of pathology at Lakeside Memorial Hospital (Brockport). Dr. Cares was a Diplomate of the American Board of Pathology (Pathologic Anatomy, Clinical Pathology, Forensic Pathology) and a member of the International Academy of Pathology, the American Association of Pathologists and Bacteriologists, the American Society of Clinical Pathologists, the American Association of Neuropathologists, the Association for Research in Nervous and Mental Diseases, the Suffolk County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Christopher Fletcher, M.D., of Buffalo, died on November 22 at the age of 98. Dr. Fletcher graduated in 1906 from Tufts College Medical School. He was a Diplomate of the American Board of Psychiatry and Neurology (Psychiatry) and a member of the American Psychiatric Association, the Buffalo Academy of Medicine, the Erie County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Cecil Arthur Frank, M.D., of The Bronx and New York City, died on November 20 at the age of 69. Dr. Frank graduated in 1935 from New York University College of Medicine. He was an attending surgeon at The Bronx-Lebanon Hospital Center and the Hospital for Joint Diseases and Medical Center. Dr. Frank was a Diplomate of the American Board of Surgery, a Fellow of the American College of Surgeons, and a member of the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph Paul Gold, M.D., of Hudson, died on December 13 at the age of 66. Dr. Gold graduated in 1936 from Cornell University Medical College. He was chief of staff at Columbia Memorial Hospital and a senior in medicine there. Dr. Gold was a Fellow of the American College of Angiology and a member of the American Geriatrics Society, the Columbia County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph Harkavy, M.D., of New York City, died on December 12 at the age of 91. Dr. Harkavy graduated in 1914 from Cornell University Medical College. He was a consulting allergist at The Mount Sinai Hospital and at Montefiore Hospital and Medical Center. Dr. Harkavy was a Diplomate of the American Board of Internal Medicine (Allergy), a Fellow of the American College of Allergists, and a member of the American Academy of Allergy, the Society for Experimental Biology and Medicine, the Society for Investigative Dermatology, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Samuel Floren Kutz, M.D., of Clifton Springs, died on January 10 at the age of 85. Dr. Kutz graduated in 1924 from the University of Pittsburgh Medical School. He was a member of the Ontario County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Arthur Lee-Roy, M.D., of Pompano Beach, Florida, formerly of New York City, died on November 30 at the age of 76. Dr. Lee-Roy graduated in 1931 from Temple University School of Medicine. He was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Thomas Francis McCarthy, M.D., of The Bronx, died on December 12 at the age of 77. Dr. McCarthy graduated in 1927 from Tufts College Medical School. He was a member of the Bronx County Medical Society, the Medical Society of the State of New York (and a past president), and the American Medical Association.

Ruth D. Sedden Moore, M.D., of Phoenix, Arizona, formerly of Utica, died on December 15 at the age of 82. Dr. Moore graduated in 1925 from Woman's Medical College of Pennsylvania. She was a member of the Oneida County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Guy G. Nicosia, M.D., of Riverhead, died on October 23 in his 93rd year. Dr. Nicosia graduated in 1913 from Albany Medical College. He was an associate, emeritus, obstetrician and gynecologist at Caledonian Hospital. Dr. Nicosia was a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Maurice N. O'Connor, M.D., of Springville, died on December 3 at the age of 78. Dr. O'Connor graduated in 1930 from the McGill University Faculty of Medicine. He was an attending physician at the Bertrand Chaffee Hospital. Dr. O'Connor was a member of the American Academy of Family Physicians, the Erie County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Mandel Weinstein, M.D., of Jackson Heights and Elmhurst, died on January 15 at the age of 83. Dr. Weinstein graduated in 1920 from Long Island College Hospital. He was a consulting surgeon at Peninsula Hospital Center and chief of surgery at Boulevard Hospital. Dr. Weinstein was a Fellow of the American College of Angiology, a Fellow of the American College of Chest Physicians, a Fellow of the International College of Surgeons, and a member of the American Thoracic Society, the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Medical Meetings

Postgraduate course

A postgraduate course on "Lung Pathology" will be presented March 23 to 27 at the Jack Tar Hotel, San Francisco, California. This course is for pathologists and chest physicians.

Course directors are: Charles Carrington, M.D., James C. Hogg, M.D., and William M. Thurlbeck, M.D., F.C.C.P. This continuing medical education activity meets the criteria for 37 credit hours in Category I of the Physician's Recognition Award of the American Medical Association.

Advanced refresher course

"Colposcopy: Advanced Refresher Course 1981" will be presented Saturday, March 28, 8:30 a.m. to 5:00 p.m., at the Teaching Center, Long Island Jewish-Hillside Medical Center, New Hyde Park.

This continuing medical education offering meets the criteria for 8 credit hours in Category I of the LCCME and the Physician's Recognition Award of the American Medical Association and for 8 Cognates in Formal Learning by the American College of Obstetricians and Gynecologists.

For further information contact: Ann Boehme, Continuing Education Coordinator, Long Island Jewish-Hillside Medical Center, New Hyde Park, N.Y. 11042; telephone: (212) 470-2114.

National nephrology meeting

"Prevention of Kidney Disease and Survival Over 10 Years on Dialysis" will be held March 31 at #1 World Trade Center, the Oval Room, New York City. CME credit will be given.

The program is sponsored by The Long Island College Hospital and the National Kidney Foundation of New York.

For registration and further information, please contact the Division of Nephrology, Long Island College Hospital, 340 Henry Street, Brooklyn, N.Y. 11201; telephone (212) 780-1247.

Two courses at Lenox Hill Hospital

"Management of the Infertile Couple," will be presented April 2 to 4 at the hospital's Einhorn Auditorium, 131 East 76th Street, New York City. Chaired by Wayne H. Decker, M.D., associate attending, Department of Obstetrics and Gynecology, the course is cosponsored by Lenox Hill Hospital and the New York Fertility Research Foundation.

The course meets the criteria for 16 credit hours in category I of the Physician's Recognition Award of the American Medical Association and has been approved for 16 cognates Formal Learning, by the American College of Obstetricians and Gynecologists.

Material for inclusion in the medical meetings section must be received eight weeks prior publication date.

For further information on the course, contact the New York Fertility Research Foundation, 123 East 89th Street, New York, N.Y. 10028; telephone (212) TR 6-9300.

"Update in Human Sexuality" will be presented April 24 and 25 in the Einhorn Auditorium. Chairman for the event is Don Sloan, M.D., Associate Attending, Department of Obstetrics and Gynecology.

The course meets the criteria for 11 credit hours in Category I of the Physician's Recognition Award of the American Medical Association.

For further information, contact the Department of Medical Education, Lenox Hill Hospital, 100 East 77th Street, New York 10021; telephone (212) 794-5181.

Three-day seminar

The "International Conference on Exercise in Cardiac and Pulmonary Rehabilitation," a three-day seminar, will be held at the Hyatt Regency Cambridge, Cambridge, Massachusetts, April 21 to 23.

The program is sponsored by the American College of Chest Physicians. Course co-directors are: Sidney Alexander, M.D., F.C.C.P., Terence Kavanagh, M.D., and Karlman Wasserman, M.D., Ph.D., F.C.C.P.

For further information, please contact: Dale E. Braddy, Director of Education, American College of Chest Physicians, 911 Busse Highway, Park Ridge, Illinois 60068.

Fourth annual teaching day

The fourth annual Loretto Geriatric Center Teaching Day" will be held April 30 at the Upstate Medical Center at Syracuse. Robert Collins, M.D., medical director, Loretto Geriatric Center, 700 E. Brighton Avenue, Syracuse, N.Y. 13205, is the program director.

Accreditation: AMA 7 credit hours in Category I.

For more information write to: Mrs. Betty Frost, Program Assistant, Office of Continuing Education, Upstate Medical Center at Syracuse, State University of New York, 766 Irving Avenue, Syracuse, N.Y. 13210; telephone (315) 473-4606.

Teaching day

The New York Allergy Society Teaching Day will be held on Friday, May 1, 1981 from 9:00 a.m. to 4:00 p.m. (registration at 8:30 a.m.) at the Uris Auditorium, Cornell University Medical Center, 1300 York Avenue, New York, N.Y. The program will be "Current Concepts in Allergy."

Proper prescribing: conflicting signals

A meeting on "Proper Prescribing: Conflicting Signals" will be held May 18 and 19 at The Sophie Davis School of Biomedical Education which is also the sponsor. The meeting will focus on the broad issues of prescribing, its characterization, and appropriateness.

Continuing education credits will be available.

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Controlled substance regulation changes

The Part 80 regulations which govern the use of controlled substances have been amended effective January 1, 1981.

The amendments are necessary to provide increased safeguards in the use of controlled substances. The major changes are:

(a) No prescriptions for any controlled substance may be prepared prior to examination of the patient by the practitioner;*
(b) The barbiturates amobarbital, pentobarbital and secobarbital must be prescribed or dispensed only upon an Official New York State Triplicate Prescription. The requirement for Triplicate Prescriptions *does not* apply to suppository forms of these drugs nor to compounds, mixtures, or preparations containing one or more of these drugs and other active medicinal ingredients which are not listed in any controlled substance schedule;
(c) Triplicate Prescriptions must now include the identification of the patient's sex on the prescription. New printing of Triplicate Prescriptions will include two boxes containing an "M" for Male and an "F" for Female which must be checked appropriately. On Triplicate Forms not containing these boxes, an "M" or "F," as appropriate, must be entered underneath the box provided for age in the area designated for the patient's address;
(d) The Department will send Triplicate Prescriptions only to the address at which you are registered with the Drug Enforcement Administration;
(e) Orders for Triplicate Prescriptions are to include the specialty of the practitioner. The Department will be sending more information on this item in early 1981. Meanwhile, orders will be accepted in the usual manner without specialty identification;†
(f) Persons operating pharmacies and supervising pharmacists are both responsible for controlled substance handling in the pharmacy and may not delegate such responsibility.

The rules have been developed to increase the ability to deal with the increasing problem of prescription drug abuse and misuse. Your cooperation in working with the Department is greatly appreciated.

If you have any questions, please contact the Bureau of Prescription Analysis at (518) 474-5006 or write: Bureau of Prescription Analysis, Empire State Plaza Tower Building, Room 429, Albany, New York 12237; Attn.: David A. Solomon.

AMA video clinic information insert

If you're a typical American physician you have much to do—and so little time. How do you practice at least 45 hours a week, attend medical meetings, maintain a homelife, and yet acquire the CME (Continuing Medical Education) you want or need?

This question has occupied and disturbed you, no doubt. More and more states (19 now) require CME for medical-license re-registration; more and more state medical societies (20 now) require it for continued membership.

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The AMA offers you a way that's ideal in all ways. It's AMA Video Clinics. A well-rounded selection of approved courses in the form of color videotapes, self-assessment tests, and illustrated study guides.

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- CONVENIENCE: No need for long, expensive out-of-town journeys, no disruption of your practice. Alone or with colleagues, you can use the Video Clinics in the office, hospital, living room, or den.
- SUCCINCTNESS—WITH DEPTH: The Clinics are two-to-six-hour courses encompassing the physiology, etiology, diagnosis, treatment, and prognosis in a disease area.
- AUTHORITATIVENESS: Each Video Clinic was developed by the AMA Council on Continuing Physician Education in cooperation with leading medical schools and top-authority M.Ds.
- ACCREDITATION CREDITS: On an hour-for-hour basis the AMA Council on Continuing Physician Education is a CME-accrediting body.
- BREADTH OF CHOICE: Subjects available are: Backache; vulvovaginal problems; practical rheumatology; the comatose patient; the multiple traumatized patient; neurological examination; dizziness; headache; new pain; hypertension; acute gastrointestinal bleeding; antibiotic therapy in office practice; the depressed patient; bronchial asthma; and alcoholism:

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* Section 80.63(c) means that on an initial practitioner-patient contact—an examination must be made prior to the initiation of any controlled substance therapy. Once an initial examination has been made, the frequency and necessity for future examination prior to prescribing either for acute or chronic conditions, will depend on the practitioner's medical judgment, taking into account the drug to be prescribed and the patient's condition, history, and disposition toward the use of controlled substances. Examinations need not be given prior to subsequent controlled substance prescriptions issued to a patient provided that the practitioner has determined, utilizing acceptable medical practice and judgment, that such additional examination is not warranted. A practitioner may not prescribe controlled substances to a patient he has never examined.

Material for inclusion in the medical news section must be received eight weeks prior to publication date.

† The Department will soon begin collecting specialty information concerning those practitioners who use triplicate prescriptions. Our mechanism for collecting such information will not be included on the triplicate prescription form itself. When a practitioner first orders triplicate prescriptions, the initial application process will provide a listing of specialty codes (3 digits) of which the doctor will enter the code on the application form which most closely describes his practice. For practitioners who already have forms in their possession, we will have a special mailing to them requesting that they provide us with the appropriate information. We will certainly send you a copy of this letter which we expect to mail in April.

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- PERMANENCE: You can shelve these study guides in your medical library for follow-up viewing.
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New transfusion clinic for young people with Cooley's anemia

A new transfusion clinic for young people with Cooley's anemia is open on Saturdays at North Shore University Hospital. The young people can receive the vitally needed treatment on Saturdays at the hospital's new Transfusion Clinic which is open from 9:00 a.m. to 1:00 p.m.

The clinic is located in the Pediatric Hematology suite on the third floor of the hospital and is staffed by a pediatric hematologist and a specially-trained transfusion nurse. Patients may save time by going to the hospital at their convenience, days, or evenings during the week to have their blood cross-matched. Then, on Saturdays when they go in, the blood will be ready for the transfusion, which takes two to four hours to complete.

The hospital is at Manhasset, New York 11030; telephone (516) 562-4760.

Here and there

Appointed: Donald J. Scherl, M.D., acting chairman of the Harvard Department of Psychiatry, Children's Hospital Medical Center, and the Judge Baker Guidance Center, Boston, Massachusetts, has been appointed president of Downstate Medical Center in Brooklyn.

Honored: Paul J. Rosch, M.D., F.A.C.P., President-Elect, New York State Society of Internal Medicine, and President, American Institute of Stress, Yonkers, was recently honored by the American Rural Health Association. Dr. Rosch was the recipient of the 1980 International Distinguished Service Award which was presented at the annual meeting of the International Foundation for Biosocial Development and Human Health.

New affiliation: Roy E. Brown, M.D., a pediatrician and public health physician, has joined CARE as a health specialist.

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from those disabled by rheumatism.

HYPERTENSION

The Renal Papilla and Hypertension. Edited by Anil K. Mandal, M.D., and Sven-Olof Bohman, M.D. New York, Plenum Medical Book Company, 1980. Illustrated, 237 pages. Hardcover, $27.50.

A survey of accomplishments in renal papilla and hypertension research.

Attention: For the convenience of our readers the list of animal carcinogens available, which appeared in the January, 1981, issue, Medical News Section, page 138, is being repeated with the address added.

List of animal carcinogens available

For the first time, a complete list of all known human and animal carcinogens is available to the general public. Information such as this is often scattered in various places.. It often requires hours of research just to find out if one particular chemical can cause cancer.

The Carcinogen Information Program has compiled lists of human and animal carcinogens released by the International Agency for Research on Cancer, the U.S. Environmental Protection Agency, and the U.S. Occupational Safety and Health Administration. This master list is now available as our bulletin #14. Beside chemical names, the Chemical Abstract registry number is given and a reference code telling which agencies rated the chemical as carcinogenic. This list is invaluable to both health specialists and to the general public. This list can be obtained free of charge. Your readers can receive this CIP bulletin simply by sending us a long self-addressed, stamped envelope (it is important that they do send us a self-addressed, stamped envelope as our mail is often overwhelming).

Address: Center for the Biology of Natural Systems, Carcinogen Information Program, Campus Box 1126, Washington University, St. Louis, Missouri 63130.

CORRECTION

The Journal apologizes for the misspelling of HEMOCCULT on page 177, column 1, third line from the bottom, and on page 178, first column, first line under the table, in the article "Cancer Detection in Industrial Clinic" by Herbert F. Newman, M.D., Jane D. Northup, M.D., Alexander Oscharoff, M.D., February, 1981, issue.

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tend to do this is to publish a notice* in prominent journals in the medical, behavioral, and social science areas. We would like such a notice to appear in your journal and have included a copy of it with this letter.*

MARVIN E. WOLFGANG
Professor of Sociology and Law
NEIL ALAN WEINER
Project Director
University of Pennsylvania
Center for Studies in Criminology
and Criminal Law
3718 Locust Walk CR
Philadelphia, Pa. 19104

* **WANTED**—Citations of research on CRIMINAL VIOLENCE: If you have done, are now doing, or soon expect to be doing research on CRIMINAL VIOLENCE in any of the medical, behavioral, or social sciences, please contact Drs. Marvin E. Wolfgang and Neil A. Weiner, University of Pennsylvania, Center for Studies in Criminology and Criminal Law. 3718 Locust Walk/CR, Philadelphia, Pennsylvania 19104. This project, sponsored by the National Institute of Justice, involves compiling a comprehensive list of research on criminal violence which will be made available to researchers as part of an information clearinghouse. Any related research is requested, regardless of size, design, or purpose. Please send your name, address, and descriptive materials or reprints.

ANNOUNCEMENT

The Editors are pleased to announce that **Scientific Articles and Case Reports** will again be accepted for review and possible publication. Only those describing rare conditions or adding new facts to our fund of knowledge will be published.

4TH ANNUAL SYMPOSIUM

NUCLEAR CARDIOLOGY FOR THE PRACTICING PHYSICIAN

JULY 5-9, 1981

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This exciting 3½ day program will have one day devoted to techniques in Nuclear Cardiology and 2½ days for clinical applications. The topics will include:

- Applications of Radionuclide Ventriculography
- Cardiovascular Nuclear Medicine – Office Practice
- Cardiac Rehabilitation
- Tomographic Cardiac Imaging
- Equipment Selection

The program meets the criteria for 28.5 credit hours in Category 1 of the Physicians Recognition Award of the AMA. The guest faculty includes: P. O. Alderson, J. S. Borer, G. W. Hamilton, R. H. Jones, W. O'Neill, R. W. Parkey, H. W. Strauss, J. H. Thrall, and H. N. Wagner, Jr. Reservation deadline is May 15, 1981. For further information contact Jagmeet S. Soin, M.D., F.A.C.C., Program Director, Division of Nuclear Medicine, The Medical College of Wisconsin, 8700 W. Wisconsin Avenue, Milwaukee, WI 53226, or call (414) 257-5968.

1981

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WHY SALT? HOW MUCH?

William J. Darby, M.D., Ph.D.
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Salt and Its History

Chemically, salt is sodium chloride (NaCl) with minor admixture of other inorganic chemicals, several of nutritive value such as iodide. Wild animals and early man hunted "licks" as sources of salt. Usefulness of salt for preservation of food and in numerous crafts further enhanced its value. The word "salary" stems from an allowance of salt in payment for services. Today the industrial use of salt far exceeds that for food—of the total of 24.5 million tons produced in 1978, only 4.1% was food grade for all food processing uses.

Sodium is essential in the regulation of body water, maintenance of osmotic pressure of body fluids, the permeability of cell membranes and control of acid-base equilibrium.

The physiologic requirement for sodium in healthy people varies with age, environmental temperature, humdiity and level of physical activity. The estimated safe and adequate levels of dietary intake for *sodium* has been set as 250-750 mg for infants 6 to 12 months of age, 600-1800 mg for children 7 to 10 years of age and 1100-3300 mg for adults.[1] *This is equivalent to a safe and adequate daily intake of 2.8-8.4 g of salt for adults.* An adult under conditions compatible with minimal losses of salt can maintain sodium balance on less than 0.5 g of salt daily.

Salt is readily excreted by the normal kidney, excretion increasing with dietary intake and decreasing during salt restriction. Renal losses by the adult of 2.5-5.0 g of sodium daily (equivalent to about 6.0-12.5 g of salt) are usual, cutaneous excretion varies and is determined by factors that alter sweat losses. Sweat losses of 1 liter/hour for 8-hour periods occur in some heavy industries, and 2 liters/hour may occur in competitive distance runners. Conversely, continuously low-intake levels of salt may result in increased urinary aldosterone levels and conservation of body salt reflected in low urinary loss. Thus, maintenance of salt balance is normally accommodated throughout a wide range of intakes.

Appetite for Salt

The appetite for and behavior toward salt intake suggest a mild aversion in early childhood but not inhibition of salt intake. Studies in children, ages 1-3 years, indicate rejection of salt *per se*, even though the young child's recognition thresholds are comparable to those of adults.[2]

A taste preference study[3] of children 9-15 years of age and adults showed that the majority preferred the mildest salt solution (0.29%), but some twenty percent selected the saltiest sample (2.34%). There were no sex differences for salty taste. In the younger group, more blacks than whites selected stronger salt solutions—thirty percent of young blacks preferring the saltiest sample. A similar trend was present among adults. These observations indicate that populations are not homogeneous in their preferences for saltiness. Whether differences in preference reflect differences in requirements or in experiences and learned preferences is not known. There is much evidence from animal studies that changes in sensitivity to preference and appetite for salt can depend on a variety of endocrinological factors.

Estimates of Salt Intake

Estimates of usual intakes of salt have a reliability similar to estimates of intake of other nutrients, being neither more nor less accurate. Professor E.V. McCollum and associates estimated in 1939[4] that "man consumes 3-6 g of sodium in the ordinary daily diet, the greater part of which is supplied by the sodium chloride added as seasoning." This is equivalent to approximately 8-15 g of NaCl daily. Estimates by the Salt Institute place current average intake at 8-10 g daily;[2] excretion studies indicate it at some 10 g daily.

The Select Committee on GRAS Substances (SCOGS) of the Life Sciences Research Offices of the Federation of American Societies for Experimental Biology reviewed available information on amount and sources of salt in the American diets.[5] They considered evidence of salt usage in the food industry from a 1970 and a 1979 National Research Council Survey, the FDA "market basket" studies, available data on excretion of sodium and data on production and sales of salt. They wrote "...several direct and indirect estimates of discretionary (consumer controlled), nondiscretionary (naturally occurring and added in industrial processing), and total sodium chloride intakes for adults have been examined...these estimates are considered very rough approximations of the national average. The best estimate of sodium intakes by adults based on these data is an average daily intake, expressed as sodium chloride, of not less than 10 to 12 g. Discretionary use accounts for about one-third of this total, estimates vary from about one-fourth to one-half (3.4 to 6.5 g). The nondiscretionary intake is contributed by about 3 g of sodium chloride (sodium occurring naturally in foods expressed as sodium chloride). By difference, the average diet provides the equivalent of about 4 to 6 g of sodium chloride from sodium chloride and other sodium-containing ingredients that were added to foods during commercial processing."[5]

The SCOGS' estimate of salt intake is higher than that of other recent ones but reflects the variation in judgmental factors that enter into such approximations, rather than evidence of increased use of salt. In fact, the SCOGS analysis supports their statement that "the total amount of sodium chloride used by the food industry is decreasing."

Current studies reveal that the salt intake of infants and young children increases about four-fold when the infant ceases to be fed commercially prepared infant foods and begins to eat the family fare as prepared for general consumption. This is because of the *low* content of salt in manufactured infant foods. For over a decade (since 1969) there has been a pronounced reduction in salt added during the manufacture of infant foods and none currently is added by some of the largest processors.[6,7]

Acute Salt Depletion

Symptoms of nausea, vomiting, dizziness, apathy, exhaustion, painful cramps and circulatory failure occurring among workers exposed to elevated temperatures under conditions conducive of extensive sweating have long been termed "miner's cramps." These symptoms are relieved by ingestion of sodium chloride, along with the replacement of water loss. Ingestion of sodium chloride tablets by those engaged in intense physical activity, such as athletes, is *not* currently recommended. Ingestion of water is the most important safeguard of physical status and performance in heavy athletic competition. The dietary intake of salt at mealtimes is adequate for meeting most needs, but if prolonged losses do endanger body salt balance, the salt should be supplied in drinking water as a 0.1% solution, not as salt tablets

Toxicity of Excessive Salt

The SCOGS Report has reviewed much of the extensive literature on the toxicity of excessive salt intake [5] It is well established that grossly excessive levels of salt can be acutely toxic and even fatal For example, instances have occurred in which salt, instead of sugar, was added to infant formulas Such massive quantities proved fatal

High levels of feeding sodium chloride (1-2 g/kg body weight daily) in children maintained on a low-potassium diet increased systolic and diastolic blood pressure levels, an effect that could be prevented or greatly lessened by increasing the potassium intake

Dietary Salt and Hypertension

Efforts to correlate salt intake with incidence of hypertension in homogeneous populations have not provided definitive evidence of a causal relationship Despite the fact that marked restriction of sodium intake to levels of 200-500 mg often reduces blood pressure, patient compliance with such drastically low-salt diets is rare Moderate salt restriction is of value as one of a combination of measures in management of hypertensive individuals, but the intake levels should be determined and monitored by a physician

Very recent studies by Bernard, et al., examined the urinary sodium excretion, plasma renin activity and taste responses of hypertensive and normotensive individuals.[8] Dietary intakes were not estimated A subgroup of the hypertensive population exhibited higher sodium excretion, lower renin activity and rated sodium chloride solutions significantly more acceptable taste-wise than did a group of normotensive controls, matched carefully for age, sex and race They have suggested that the combination of high-salt intake, low-plasma renin activity and increased pleasantness of salt taste constitute a form of essential hypertension in which the biological mechanisms that regulate the sodium balance of the body are reset at a higher level. Studies such as these may, in the future, clarify the nature of the defect(s) in sodium metabolism that is (are) associated with so-called essential hypertension.

Controversy on Salt Intake Limitation

Hypertension is a sign, not a disease entity, and may result from a variety of causes through various mechanisms Epidemiologic studies do not provide decisive evidence of causative relationship between the levels of salt intake widely consumed in the United States and hypertensive disease Also, a severe decrease in salt intake appears to be necessary to treat the problem of hypertension

These points are recognized even by those who vigorously advocate reduction in salt intake For example, the recently published *Dietary Guidelines for Americans*[9] from the U S Department of Agriculture and the U S Department of Health, Education and Welfare states in part "The major hazard of excessive sodium is for persons who have high blood pressure, not everyone is susceptible In the United States, approximately 17% of adults have high blood pressure The sodium intake is but one of the factors known to affect blood pressure Obesity, in particular, seems to play a major role

"At present there is no good way to predict who will develop high blood pressure, though certain groups, such as blacks, have a higher incidence Low-sodium diets might help some of these people avoid high blood pressure if they could be identified before they develop the condition "

Despite this, several publications including these *Guidelines*, the SCOGS' Report, *Healthy People* from the Surgeon General[10] and *Toward Healthful Diets* from the Food and Nutrition Board of the National Academy of Sciences[11] all recommend a moderate reduction in sodium intake regardless of the individual's habitual dietary salt intake or blood pressure.

Foodstuffs recommended for reduction by the *Guidelines* include cheese, cured meats, potato chips, salted nuts and sauces It would be useful to look at actual sources of salt in the diet and the nutritional contribution of the foodstuff. In this regard, the SCOGS Report indicates that foods contributing most to the "possible average daily intake" of 7.1 g of salt added to processed foods were meat products (1.9 g), baked goods (1.8 g) and cheese (0.1g), while snack foods contributed less than 0.05 g daily.[5]

Care must be taken when making recommendations for the general public to avoid specific foods on the basis of the amount of salt or other ingredients and not to advise an undesirable reduction in intake of highly nutritious, nutrient-dense foodstuffs. It is also important to recognize the hedonic component of food acceptability can result in elimination of a particular food or a food group from the pattern of consumption.

Summary

Present information concerning dietary salt intake justifies the following conclusions (1) the estimates of "per capita intake" of salt in the U S., while clearly above the minimal physiologic need, are within the range of physiologic accommodation by the healthy individual, (2) acute grossly excessive or low levels of salt intake can be toxic; (3) general, moderate reduction in dietary salt intake cannot predictably be anticipated to decrease the *development* of hypertension, (4) some individuals with hypertension, however, do benefit from limitation of sodium intake at levels appropriate to the therapeutic regimen advised by their physician, and (5) the role of the diet in the cause or prevention of hypertension has not yet been defined.

REFERENCES

1 National Academy of Sciences, National Research Council, Food and Nutrition Board, *Recommended Dietary Allowances*, Ninth Edition Washington, D C 1980

2 Kare Morley, R et al *Biological and Behavioral Aspects of Salt Intake*, A Nutrition Foundation Monograph, Academic Press, Inc New York 1980

3 Desor, J A et al Preferences for Sweet and Salty in 9 to 15-Year-Old and Adult Humans, *Science* 190 686-687 1975

4 McCollum E V et al *The Newer Knowledge of Nutrition*, Fifth Edition The MacMillan Company New York 1939

5 Select Committee on GRAS Substances, *Evaluation of the Health Aspects of Sodium Chloride as Food Ingredients*, Life Sciences Research Office, Federation of American Societies for Experimental Biology Bethesda Maryland 1979

6 Filer L J Jr "Availability of Suitable Foods in the Marketplace a Are Suitable Low-Salt Foods Available in the Market?" In *Childhood Prevention of Atherosclerosis and Hypertension*, Edited by R M Lauer and R B Shekelle, Raven Press, New York 1980

7 Institute of Food Technologists, Dietary Salt, A Scientific Status Summary by the Institute of Food Technologists' Expert Panel on Food Safety and Nutrition and the Committee on Public Information, *Food Technology* 34 1, 1980

8 Bernard, R A et al "Taste and Salt in Human Hypertension " In *Biological and Behavioral Aspects of Salt Intake*, Edited by Morley R Kare, et al Academic Press, Inc , New York, 1980

9 U S Department of Agriculture, U S Department of Health, Education and Welfare, *Nutrition and Your Health, Dietary Guidelines for Americans*, U S Government Printing Office, Washington, D C , 1980

10 U S Department of Health, Education and Welfare, *Healthy People, The Surgeon General's Report on Health Promotion and Disease Prevention*, DHEW (PHS) Publication No. 79-55071, U S Government Printing Office, Washington, D C , 1979

11 National Academy of Sciences, National Research Council, Food and Nutrition Board, *Toward Healthful Diets*, Washington, D.C., 1980.

Reprinted from ***Contemporary Nutrition,*** *General Mills, Inc., June, 1980, Volume 5, Number 6*

continued from page 314

Walter B. Essman, M.D., Ph.D. New York, SP Medical & Scientific Books, 1980. Illustrated, 425 pages. Hardcover, $45.

Issues and views of current relevance concerning clinical endocrinology.

OVARIAN NEOPLASMS

Biology of Ovarian Neoplasia. Edited by E. D. Murphy and W. G. Beamer. Geneva, Switzerland, International Union Against Cancer, 1980. UICC Technical Report Series, Volume 50. Paperback, 132 pages. Price, Swiss Francs, 16. (Available from above organization at 3 Rue du Conseil General, Geneva, 1205).

Report of the Workshop No. 11 on the Biology of Human Cancer.

NUCLEAR MEDICINE

Nuclear Medicine: a Comprehensive Bibliography. Compiled by Alberta D. Berton, New York, IFI/Plenum, 1980. Hardcover, 351 pages. Price, $85.

Literature gathered from interdisciplinary sources, covering the period 1977–79.

HISTOLOGY

Human Microscopic Anatomy. By Seong S. Han and Jan O. Holmstedt. New York, McGraw-Hill Book Company, 1981. Illustrated, 641 pages. Hardcover, $

A textbook with the stated purpose of aiding the student in extracting and assimilating the necessary information from the overwhelming literature.

DISSECTION

Shearer's Manual of Human Dissection. Sixth edition. Edited by Charles E. Tobin, Ph.D., and John J. Jacobs, Ph.D. New York, McGraw-Hill Book Co., 1981. Illustrated, 282 pages. Spiral, $

A source of concise and specific detail in dissection procedures for the student.

VIRUS DISEASES

The User's Guide to the Diagnostic Virology Laboratory. By David A. Lennette, Ph.D., and Evelyne T. Lennette, Ph.D. Baltimore, University Park Press, 1981. Illustrated, 103 pages. Spiral, $9.95.

A handbook to improve the utilization of clinical virology laboratories by physicians.

RHEUMATISM

Rehabilitation Management of Rheumatic Conditions. Edited by George E. Ehrlich, M.D. Baltimore, Williams & Wilkins, 1980. Illustrated, 322 pages. Hardcover, $34.95.

A state of the art review of how to remove the handicap

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Coming

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Journal of Medicine

●

Medicine in the Fiction of Isaac B. Singer
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Radiologic Problems

Book Reviews

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For further information and registration forms contact: John P. Morgan, M.D., or Doreen Kagan, M.S., Sophie Davis School of Biomedical Education, City College of New York–J903, Convent Avenue at 138th Street, New York, N.Y. 10031; telephone (212) 690-8255.

Neuropathology: an In-Depth Review of Selected Topics

"Neuropathology: an In-Depth Review of Selected Topics" will be offered by New York University Post-Graduate Medical School May 18 to 22.

Category I credit hours are 30½.

For information: New York University Post-Graduate Medical School, 550 First Avenue, New York, N.Y. 10016; telephone (212) 340-5295 (24-hour service).

Selected topics in pediatric and adolescent medicine 1981

A course on "Selected Topics in Pediatric and Adolescent Medicine 1981" is being offered by the Department of Pediatrics, New York University Post-Graduate Medical School, Monday through Thursday 8:00 a.m. to 1:30 p.m., June 1 to 4.

Accreditation—22 Category I credit hours.

For information call or write: NYU Post-Graduate Medical School, 550 First Avenue, New York, N.Y. 10016; telephone (212) 340-5295.

Emergency Medicine 1981

"Emergency Medicine 1981—Clinical Decision Making in the Emergency Department" will be presented June 22 to 25 by New York University Post-Graduate Medical School and Bellevue Hospital Center.

Twenty-six (26) AMA Category I credit hours have been approved.

For further information: NYU Post-Graduate Medical School, 550 First Avenue, New York, N.Y. 10016; telephone (212) 340-5295 (24-hour service).

CME program offering

"Gynecology, 1981" will be offered August 3 to 6, Snowmass, Colorado.

The University of Colorado School of Medicine is offering a gynecology course that is designed to present topics of current and immediate interest to active practitioners of this specialty with particular emphasis on endocrinology, infertility, pathology, oncology, infectious disease, and office gynecology. The format will include breakfast seminars in gynecologic endocrinology, oncology, and general gynecology which will include both office gynecology and infectious disease. Similar seminars will be presented on three consecutive mornings so that all participants will be able to attend all seminars.

Plenary presentations will follow these seminars. Guest speakers will include experts in gynecologic endocrinology and gynecologic oncology.

Please note that the gynecology and pediatric conferences are being held concurrently so that attendees may also choose to remain in Aspen to attend the Perinatal Conference week.

Contact: The Office of Postgraduate Medical Education, University of Colorado School of Medicine, 4200 East Ninth Avenue, C-295, Denver, Colorado 80262, or call 303/394-5241.

Multidisciplinary seminar on spina bifida

On September 24, 25, and 26, Children's Memorial Hospital will be hosting a comprehensive seminar including topics on orthopedics, neurosurgery, urology, and pediatrics. For information contact David G. McLone M.D., Ph.D.; Children's Memorial Hospital; 2300 Children's Plaza; Chicago, Ill 60614; Tel (312) 649-4373.

Cancer 1981/ Cancer 2001

"Cancer 1981/Cancer 2001—An International Colloquium" will be held in lieu of the University of Texas–M. D. Anderson annual clinical conference. Dates for the Colloquium will be November 10–14, at the Shamrock Hilton Hotel, Houston, Texas. On the 10th anniversary of the National Cancer Program, outstanding authorities will take a hard look at the directions cancer research and treatment should take in the near future. Presentations will focus on promising avenues of cancer research and likely developments in related fields, such as imaging, artificial intelligence, and monitoring. Participants will consider the possible impact of likely developments on cancer patient care and the probable status of cancer patient care in the year 2001.

Presentations will be made by both basic and clinical scientists. The meeting is sponsored by The University of Texas M. D. Anderson Hospital and Tumor Institute.

For additional information: Dr. C. Stratton Hill, Jr., Conference Coordinator, Room 115, UT M. D. Anderson Hospital and Tumor Institute, 6723 Bertner Avenue, Houston, Texas 77030; telephone: (713) 792-2222.

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probably will not support a comprehensive national health insurance program but that its approach to the problem might be to combine catastrophic coverage and a program to fill in the gaps for the 10 percent of the population who have no coverage.

He said that he was against any federal regulation approach to hospital cost containment, but that it was his intention to resurrect a voluntary effort to reduce increasing costs of medical care. He also said that he would reinforce and not threaten these programs with antitrust suits. He agreed with Senator David L. Boren (D., Okla.) that a bill to set up pilot programs for states to experiment with cost-saving programs would be a good approach. He said he emphasizes the competitive approach to reducing hospital costs.

Schweiker also said that a lot can be done in home health care delivery, especially for the elderly, and he would look at reimbursement procedures to encourage the reinvestment of resources in lesser costing health care as an alternative to putting elderly in nursing homes.

Freshman Senator Steven D. Symms (R., Id.) asked Schweiker about PSROs pointing out that the AMA House of Delegates had recently opposed them after originally supporting them. Schweiker said that PSROs would be at the top of the list of programs for reevaluation. He said he had made no final judgment, but that preliminary figures indicating that PSROs are spending more money than they are saving are discouraging.

In response to criticism of the Food and Drug Administration by newly elected Senator Charles E. Grassley (R., Ia.), Schweiker said that he had led the fight to oppose the banning of saccharine and that the Delaney Clause needed to be revised.

There was mostly praise and good wishes from his colleagues in the Senate Finance Committee, but there was some good humored poking from the new minority Democratic Senators Russell B. Long of Louisiana and Daniel Patrick Moynihan of New York.

Long, the outgoing Chairman of the Finance Committee, compared Schweiker to a Gulliver going into the land of the Lilliputians. He wondered if Schweiker would be able to control this government island.

Schweiker responded that he didn't think the wool would be pulled over his eyes and that he was going to work with Congress.

Senator Moynihan questioned Schweiker on whether he was going to follow the Republican platform's pledge to make a wholesale transfer of federal welfare programs to state governments and asked if Schweiker intended to repeal the Medicaid program or to transfer the Social Security System to state governments.

Schweiker said that he did not consider the Social Security System to be welfare and that his first priority as incoming HHS Secretary would be to maintain the integrity of the system and to solve its short and long range problems.

In response to a question by Senator Max Baucus (D., Mont.) Schweiker said he would "like to be remembered as the HHS Secretary who put preventive medicine at the top of the health care agenda." He stated he would especially support research in this area, and that he believes in an emphasis on keeping people well to avoid disease. "I'm a two mile a day jogger," he said. "I intend to continue my efforts in health promotion and disease prevention within the department, emphasizing cost effective, preventive

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health care strategies."

* * *

Former President Carter sent Congress a $73.5 billion budget for the government's civilian health programs next fiscal year, up from the $64.5 billion this year. The outgoing budget stands to be worked over by the new Reagan Administration.

There's little chance the overall totals will differ much, since the bulk of the Carter budget's increase comes from inexorable rises in Medicare—from $38.6 billion to $45.3 billion—and Medicaid—from $15.6 billion to $17.2 billion.

The Public Health Service received a miserly $8.7 billion, up 5.9 percent, for its discretionary health programs, several of which are being eyed by the Reagan Administration for extinction or deep slashes.

The Carter budget mentions national health insurance only in passing, saying that it continues to support enactment of the Carter plan "when budget resources are available." At the same time, the budget assumes Congressional enactment of the CHAP (Child Health Assurance Program) with a $50 million request. For the first time in three years, the budget does not assume Congressional passage of the Hospital Cost Containment plan that was defeated in the last Congress and that is stoutly opposed by the new Administration.

Health programs put down for sizable increases include Community Health Centers, National Health Service Corps, Genetic Screening, Communicable Disease Center's health promotion programs, some of the NIH (National Institutes for Health), and the National Institute on Alcohol Abuse and Alcoholism.

The major cutback eyed by the outgoing Administration was, as usual, in medical education through elimination of the $72 million for capitation grants and $73 million for other health professions education programs, including $48 million for nursing education aid.

The "lame duck" budget says that HHS will continue to encourage hospitals to keep expenditures from rising more than 14 percent this year with "strong efforts to monitor hospital compliance." The budget seeks legislative authority from Congress to link Medicare-Medicaid reimbursement to hospitals' compliance with local planning recommendations.

All of the institutes for federal medical research programs were allotted some increases, but the total $255 million gain is only 7.1 percent of the NIH's $3.8 billion budget. With an increase of $46 million, the National Cancer Institute would go over the $1 billion mark for the first time. But the increase was the smallest percentage increase (4.6 percent) of all the institutes. Institutes allowed the largest gains were Environmental Health Sciences, Eye, Aging, and Neurological.

The Carter budget proposes no change in funding for the PSRO (Professional Standards Review Organization) program, but predicts that PSROs will save the government $244 million through reducing the number of Medicare hospital days and reducing inappropriate medical care. The PSRO program is rumored to be vulnerable under the Reagan Administration.

The $33 million increase, or 36 percent, proposed for the National Health Service Corps would enable the Corps to swell its strength to 3,570 people next year. HHS Secretary Schweiker was critical of the Corps expansion at Congressional hearings last year.

HMOs (Health Maintenance Organizations) would remain at the same level as last year with the loan and loan guarantee fund recapitalized with $17 million plus $48 million for grants for development of new HMOs and expansion of existing ones.

The Health Planning budget was standpat at $147 million, possibly because the Reagan Administration is known to be hostile to the program. The budget proposes that a voluntary incentive grant program of $13 million to set up to channel discretionary funding through the state health planning agencies to health systems agencies. In order to get the money, the HSAs would have to establish special cost containment programs for reducing beds or construction.

* * *

A panel of economists has told the Senate Budget Committee that Social Security benefits must be cut in order to balance the federal budget.

Former Federal Reserve Board Chairman Arthur Burns said Social Security beneficiaries are a "privileged class" because benefits have increased faster than wages in recent years and are tax exempt.

Barry Bosworth, former Director of the Council on Wage and Price Stability, said "you have got to get into programs such as Social Security and cut them."

The Reagan Administration has promised to seek ways to cut back on the size of the Social Security program.

* * *

The nursing home industry, which has compared itself to David fighting Goliath in its court fight against proposed new government regulations, came out victorious thanks to the new Administration.

The regulations were a lengthy list of guarantees for patients such as privacy, access to records, visiting hours, and so forth that nursing homes claimed would cost them $500 million a year to obey.

The proposals were issued as one of the final acts of former HHS Secretary Patricia Harris. They were swiftly withdrawn the day after the inauguration of President Reagan. The Department said "the potential impact on both providers and consumers of health care needs to be assessed further."

The notice of withdrawal said that Harris improperly ignored a congressional order that HHS consult a General Accounting Office study of the impact of the regulations before making a final decision. But HHS officials said the real reason was the new HHS Secretary Schweiker opposed the regulations.

* * *

The decision by former HHS Secretary Harris not to recharter the GMENAC (Graduate Medical Education National Advisory Committee) was a setback for supporters who wanted to make the Committee a permanent advisory group.

The committee last year issued a lengthy, controversial report urging reductions in medical school enrollments.

The AMA opposed making GMENAC permanent. An AMA task force warned that this would make it more likely that GMENAC recommendations would be readily transformed into federal regulations.

Harris' move leaves the option open to new HHS Secretary Schweiker to proceed on GMENAC's status. The House-passed Health Manpower bill last year contained a provision cementing GMENAC's status, but the Senate bill was silent on the subject.

SCHEDULE OF SCIENTIFIC MEETINGS

1981 ANNUAL CME ASSEMBLY

Medical Society of the State of New York
Niagara Falls Convention Center

FRIDAY, JUNE 26

Morning:
- Cardiovascular Diseases
- Obstetrics & Gynecology
- Gastroenterology, Colon & Rectal Surgery
- Cancer Update 1981—General Session
- Chest Diseases

Afternoon:
- Occupational Medicine, and Medical Legal & Workers' Compensation matters
- Obstetrics & Gynecology
- Gastroenterology, Colon & Rectal Surgery
- Alcohol & the Unborn—General Session
- Preventive Medicine
- Otolaryngology & Maxillofacial Surgery
- Dermatology & Syphilology

SATURDAY, JUNE 27

Morning:
- Ophthalmology
- Internal Medicine
- Surgery, Urology & Anesthesiology
- Pathology, Radiology & Orthopedic Surgery
- Neurosurgery

Afternoon:
- Ophthalmology
- Internal Medicine
- Computer Application to Office & Hospital Practice General Session

SUNDAY, JUNE 28

Morning:
- Allergy & Immunology
- School Health & Pediatrics
- Psychiatry & Family and General Practice
- Plastic, Reconstructive & Maxillofacial Surgery
- Physical Medicine & Rehabilitation, and Orthopedics
- Neurology

CME CREDITS: Each program will be eligible for CME Category I Credits on an hour-for-hour basis.

SCIENTIFIC & TECHNICAL EXHIBITS

THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

1981 Annual CME Assembly

Friday, June 26—Sunday, June 28

All physicians are invited to attend our Annual Continuing Medical Education Program to be held in Niagara Falls, New York. You will have the opportunity to obtain Category I CME Credits during 2½ days of outstanding General Sessions, Symposia, and Panel Discussions.

As in the past, there will be Scientific and Technical Exhibits to help the physician to become acquainted with the latest research techniques, and to learn about new products and services that will help the physician provide better medical care.

Niagara Falls
International Convention Center

NIAGARA FALLS INTERNATIONAL CONVENTION CENTER

The Convention Center is centrally located in downtown Niagara Falls just 1800 feet from the Falls and the Rain-Bow Bridge to Canada. The CME meetings and Exhibits will be located in the Convention Center. Ample on-site outdoor parking is provided at a special daily charge for convention participants.

THE NIAGARA HILTON

Our headquarters hotel, The Niagara Hilton, a few steps away from the Convention Center and a short stroll to the Falls, offers the ultimate in comfortable hotel living. Three different restaurants await you. Sidney's with its romantic atmosphere serves breakfast, lunch and dinner and is noted for its cuisine. Captain Jack's Nautical Nightclub is ideal for a casual drink or nightly dancing. For quiet relaxing atmosphere, the Casbah Cocktail Lounge offers cocktails before and after dinner. You can enjoy the Palm Court and indoor pool with sliding glass sunroof. Ample parking is provided under covered ramp connected to hotel. Hotel guest services include indoor heated pool, exercise room, saunas, beauty salon, gift shops, post office, pharmacy, and art gallery.

HOW TO GET THERE

The International Convention Center and the Niagara Hilton are located just 25 miles and 40 minutes from Greater Buffalo International Airport which is serviced by Allegheny, Eastern, United and American Airlines. The airport bus is $4.00. Amtrak rail service is available through Buffalo about 21 miles south; taxi about $8.00. By car, Niagara Falls is about 450 miles from New York City via the New York State Thruway.

WHAT TO SEE—HIGHLIGHTS

The Falls.

Just a short walk from the Niagara Hilton, the Falls is one of the top attractions of the world. At night the Falls are illuminated by colored lights which create a spectacular sight.

Prospect Point & Observation Tower.

At Prospect Point, an elevator in the observation tower takes visitors to the base of the Falls or high above them.

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Niagara Falls, New York 14303

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MEDICAL SOCIETY OF THE STATE OF NEW YORK • June 26–28, 1981

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Reservations must be received by JUNE 4, 1981. Reservations will be accepted after this date on an if-available basis. If room at requested rate is not available, one at nearest available rate will be reserved. If reservations are made by telephone, you must identify the Medical Society meeting for the special rate to apply.

Maid of the Mist.
eparting from the foot of the Observation Tower & Pros-
ect Point, the boats pass directly in front of the American
nd Bridal Veil Falls, and enter into the Horseshoe Basin.
oats depart about every 15 minutes and the trip lasts
ne-half hour.

oat Island.
ividing the Niagara River into the Horseshoe and American
alls, the island provides dramatic views of the Falls.

ave of the Winds.
uided tour to the base of the Bridal Veil Falls.

iagara Viewmobile.
guided mini-train excursion of Prospect Park and Goat
sland.

inter Garden.
tropical park in a greenhouse-like structure on Rainbow
all near the Niagara Hilton. On display are plants of 225
ifferent varieties including 40 ft. high palms.

eological Museum.
ontains the geological history of the Falls covering 500
illion years.

iagara Power Project.
ocated 4½ miles north of the Falls, it has displays, exhibits,
otion pictures, plus an observation deck overlooking the
iagara Gorge and River.

rtpark.
200 acre park located 12 miles from Niagara Falls at
ewiston. It includes a theatre, and artists and craftsmen
orking daily from 11 a.m. to 5 p.m.

ewiston, N.Y.
historic village noted for its portage.

Lower Niagara Cruises.
Two hour cruises on the Niagara River from Fort Niagara

Old Fort Niagara.
Relive nearly 300 years of history under three flags in thi
well-preserved Fort.

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Housed in a beautiful neoclassical, ionic columned building
the gallery is among the top ten museums of modern art i
America. On view are major paintings by deKoonig,
Rothko, Pollock, Kline, Motherwell, Frankenthaler, Stella
Jasper Johns, Rauschenberg & Still. And sculptures by
David Smith and David Hare.

HOTEL RESERVATIONS

Physicians must make their own hotel reservations no late
than June 4, 1981 in order to take advantage of the specia
rates. If making hotel reservations by telephone, please
mention that you are attending the Medical Society CME
Assembly.

SPECIAL EVENTS

MSSNY RECEPTION & DINNER.
All physicians and their guests are welcome to attend a
reception and dinner to be held at the Niagara Hilton on
Saturday, June 27th. An outstanding guest speaker is
scheduled to appear. The reception will start at 7:00 p.m.
and dinner at 8:00 p.m. Cost: $30.00.

GOLF TOURNAMENT.
Details will appear in the April issue of the Journal.

(continued on following page

PRE-REGISTRATION FORM
1981 Annual CME Assembly, June 26–28
Niagara Falls International Convention Center

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SPECIAL COURSES

BASIC CARDIAC LIFE SUPPORT

This course will take place on Friday and Saturday from 8:30 a.m. to 4:30 p.m., and is limited to 24 physician members of MSSNY. Details will appear in the April issue of the Journal.

SPECIAL SESSION

1980 ALBION O. BERNSTEIN, M.D. AWARD.

On Saturday, June 27th, the award will be presented by Ralph M. Schwartz, M.D., President, Medical Society of the State of New York, to Georges Kohler, Ph.D. of the Basel Institute for Immunology in Switzerland for his outstanding achievement in immunology. Dr. Kohler will address the special session.

INTERMISSIONS

There will be morning and afternoon intermissions for coffee, and to allow time to visit the exhibits.

Your identification badge and tickets will be held at the MSSNY Registration Desk located in the Niagara Falls Convention Center.

MEETING HOURS

Friday, June 26:

8:00 a.m.–12 Noon
1:00 p.m. & 2:00 p.m.–5:00 p.m.

Saturday, June 27:

8:00 a.m.–12 Noon
1:00 p.m.–4:00 p.m.
4:30 p.m.–5:30 p.m.

Sunday, June 28:

8:30 a.m.–1:00 p.m.

●

All Meetings & Exhibits will close at 1:00 p.m. on Sunday.

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Cinque (5) patientes superviveva libere de cancer per un tempore prolongate. Un patiente ha un superviventia de plus que 11 annos desde le operation chirurgic.

Sussman, L. N., e Gilja, B. K.: Determination del gruppos sanguine pro etablir paternitate o non paternitate, **New York State J. Med.** 81: 343 (Martio) 1981.

Le plus nove aspectos del determination del gruppos sanguine pro establir marcatores genetic ha melliorate le habilitate de excluder le homine falsemente accusate e de conducer al establimento de circa de 99.9 pro cento de "probabilitate de paternitate." Le resultatos obtenite in 3000 casos de paternitate indica que ha un proportion de exclusion de solmente un 65 pro cento mediante le uso del tests con antigenos del erythrocytos in le casos de homines falsemente accusate. Nonobstante, le histocompatibilitate facite mediante le studios del antigenos del leukocytos permite obtenir un proportion de exclusion de 95 a 99 pro cento. Un proportion augmentate de exclusion hasta de 99.9 pro cento pote esser obtenite in le promedio del casos mediante le uso de antigenos erythrocytic plus le tests del proteinas plasmatic. Le calculation del probabilitates de paternitate permite facer le decision in quanto a paternitate, specialmente si altere circumstantias como le acceso o le data del exposition es considerate. Le pathologistas clinic capabile de facer le determination del gruppos sanguine debe esser crescentemente involvate in iste materias e debe devenir familiari con le procedimentos e disponibilitate del material necessari per facer le tests.

Translated by Eduardo I. Juliet, M.D.

Correction

The Journal regrets that in the December, 1980, issue, **Table IV** on page 1952 (Stein, H. D.: Penetrating injuries to the duodenum, 80: 1950 (Dec.) 1980)) in column under the heading "Number of Patients" the fourth figure should be 1 *not* 11.

TABLE IV. Association of mortality rate with other injuries

Number	Number of Patients	Mortality Rate (percent)
Vascular injuries		
0	29	7
1	10	30
2	6	67
3	1	0
Organs injured (excluding vessels)		
1	5	20
2	15	7
3	12	17
4	7	14
5	4	75
6	0	0
7	2	50
8	1	0

continued from page 310

of RBC (red blood cell) antigen tests alone, when a man is falsely accused; however, by performing histocompatibility leukocyte antigen studies an exclusion rate of 95 to 99 percent is attainable. An increased exclusion rate to 99.9 percent can be obtained in average cases by the use of RBC antigen and plasma protein tests. Calculation of the probability of paternity permits a decision regarding paternity, especially if other circumstances such as access and date of exposure are considered. Clinical pathologists capable of performing blood grouping tests should be increasingly involved in these matters and should be familiar with the procedures and availability of testing facilities.

PHYSICIANS WANTED

PHYSICIAN, EMERGENCY MEDICINE—Newly established 654 acute and lo term bed, medical school affiliated, multi-hospital system in New York's Southe Tier is recruiting full time physician, Emergency Medicine. Hospital active seeking Emergency Medicine Residency. Physician will have teaching respo sibility in present residency program. Must have three years post gradua training and Emergency Department experience. Salary negotiable. Co petitive benefit program. An immediate need. Send curriculum vitae to J. Tallam, M.D., Director Emergency Medicine, Wilson Memorial Hospital, 33- Harrison Street, Johnson City, New York 13790. An Equal Opportunity E ployer. Phone (607) 773-6371.

EMERGENCY MEDICINE OPPORTUNITIES AVAILABLE: Excellent come, flexible scheduling and professional liability insurance will be provid the physician chosen to assume clinical responsibilities in the emergency partment of this modern facility. The Department of Emergency Medic maintains four full-time staff members and provides care to approximately 26, emergency patients annually. For details, send credentials in confidence to Richard Ballard, 970 Executive Parkway, St. Louis, Mo. 63141, or call toll-fr 1-800-325-3982.

PHYSICIANS NEEDED FOR 75 SUMMER CAMPS for children located Northeastern States, July and August or a single month. Contact: Associat of Independent Camps, 157 West 57th St., New York, N. Y. 10019 (212) 5 3540.

PEDIATRICIAN: BOARD ELIGIBLE OR CERTIFIED with good train (experience in Neonatology or Allergy preferred) to join Board Certified Ped tricians. Full partnership after one year. Nice, progressive college town in t Finger Lakes Region, New York State. Send Resume to Dept. 157, NYSJM.

WESTERN NEW YORK—EMERGENCY MEDICINE opportunities: Excell income, paid professional liability insurance, flexible scheduling without on- involvement are all available to the three clinical physicians selected. A mod facility, this fast-paced emergency department handles a high volume of pati visits and provides a challenging path for career growth. For details cont Richard Ballard toll-free at 1-800-325-3982 or forward credentials in compl confidence to 970 Executive Parkway, St. Louis, MO 63141.

PHYSICIAN DURING JULY AND AUGUST 1981, for children's camp loca at Beach Lake, Pa., accommodates 350 campers; ages 6-16; complete mod Health Center; 2 R.N.'s in attendance; will accept one M.D. for each month; children accepted who are of camp age. Camp opens June 27 and closes Aug 21. Private room and facilities. Write to, and include your phone numb Trail's End Camp, c/o Beach Lake, Inc., 215 Adams Street, Brooklyn, N. 11201.

HYSICIANS WANTED—CONT'D

MERGENCY MEDICINE WESTERN NEW YORK: Clinical and Directorship opportunities. Excellent income, paid malpractice insurance, flexible scheduling without on-call involvement—all are available to physicians chosen. For further details send credentials in confidence to James Thomas, 230 Park Avenue, Suite 303, New York, NY 10017 or call Collect (212) 599-0060.

NECOLOGIST FOR STUDENT HEALTH CENTER not associated with medical school; regular office hours; involves office gynecology, must have Florida icense or be eligible for endorsement via FLEX or National Board of Medical Examiners certification obtained within past 10 years. Excellent salary. An Equal Opportunity Employer. Send CV to Director, University Health Center, Florida State University, Tallahassee, Florida 32306.

RECTOR OF SURGERY Voluntary, Non-teaching Hospital in New York City. Salaried position either full-time or part-time. Also with excellent opportunity o build practice. Curriculum Vitae to Dept. 165, c/o NYSJM.

UDENT HEALTH SERVICE PHYSICIAN — to share with another physician he responsibility for primary health care of 1600 students in a coeducational iberal arts college. The Health Center has well equipped in-patient and out-patient facilities, with full time professional nursing and counseling staff. Renewable appointment, beginning in summer 1981, is basically half-time for the 9½ month academic year. College rental housing and other fringe benefits available. New York State license required. Contact: Director, Rudd Health Center, Hamilton College, Clinton, N.Y. 13323.

RACTICES AVAILABLE

OR SALE, VERY ATTRACTIVE PARTNERSHIP (2 man) practice, general and internal medicine. Established 28 years, south shore eastern Nassau County. Grosses 6 figures annually. Partners will retire upon sale of practice. Also available for purchase is office building (10,000 sq. ft.) where practice is located. Reply Dept. 162, c/o NYSJM.

LEVELAND, NEW YORK. Established family practice over 40 years, 30 miles north of Syracuse. Beautiful large home on Lake Oneida, 7 room office suite. Call or write Mrs. Loew, C-21 Burlingame RE, Fayetteville, N. Y. 13066. (315) 446-1725 or 446-4681.

YEAR ESTABLISHED FAMILY PRACTICE, home-office combination, separate entrances, 2 story building, office fully equipped, own parking lot, retiring, will introduce, Syracuse, N. Y. Reply Dept. 166, c/o NYSJM.

RACTICE OPPORTUNITY excellent opening for one or two physicians interested in primary care to assume established practice in fully equipped office in ten thousand population community with fine hospital and less than one hour from medical college teaching center. Reply Dept. 170, c/o NYSJM.

HYSICIAN RETIRING—EXCELLENT FAMILY PRACTICE in southern Westchester—excellent hospital—connections guaranteed—will introduce—brand new ECG—X-ray—etc. Easy terms. Reply Dept. 169, c/o NYSJM.

RACTICES WANTED

YEAR OLD AMERICAN INTERNIST wishes lucrative Internal Medicine or General Practice in Nassau County, New York. Please reply Dept. 159, c/o NYSJM, or you may call at (305) 932-1183.

HTHALMOLOGIST, BOARD CERTIFIED desires to purchase practice in the New York City or suburban area. Confidence Maintained. Please contact Dept. 168, c/o NYSJM.

D. SEEKING SOLO G.P./FAMILY PRACTICE in Nassau, Western Suffolk, Westchester or Queens Counties. Willing to purchase either Home-office combination or office only with going active General and/or Family practice. Available immediately. Write: c/o Lohrman, 80-68 90th Road, Woodhaven, N. Y. 11421 or phone (evenings only) (212) 296-0767.

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POSITIONS WANTED

GENERAL SURGEON: 32 year old, university trained, board certified general surgeon with vascular experience seeks opportunity in general surgical or multispecialty group practice in New York metropolitan area. Reply Dept. 155, c/o NYSJM.

RADIOLOGIST, A.B.R. WITH GOOD BACKGROUND in general radiology and special expertise in nuclear medicine, arteriography and ultrasonography desires to join a group within 60 mile radius of New York City. Reply Dept. 161, c/o NYSJM.

CARDIOLOGIST: AGE 29, BOARD CERTIFIED Internal Medicine, Board eligible Cardiology; available July, 1981. Trained in all areas of non-invasive cardiology, Swan-Ganz, temporary pacemakers. Seeks association or group practice in suburban New York City. Reply Dept. 167, c/o NYSJM.

PHYSICIAN ASSISTANT: I CAN LIGHTEN your load and increase your practice without compromising deliverance of quality primary care medicine; 4 years experience; Board Certified, N.Y. licensed; Seeking position in Family Medicine, solo or group practice; Contact Robert H. Smith, 11 Bobbie Dr., Rochester, N.Y. 14606, or call (716) 426-0118.

ULTRASOUND: Have equipment, will travel: Picker 80L, Narco 230 Realtime, and full office ready to set-up. 6 years as Director of Ultrasound in N.Y.C. metropolitan community hospitals, M.D. looking to establish solo practice of obs-gyn and abdominal ultrasound diagnosis. Reply Dept. 171, c/o NYSJM.

RETIRED PATHOLOGIST wants part time work. Reply Dept. 164, c/o NYSJM.

LOCUM TENENS WORK WANTED. The more you know about choices, the easier it is to choose. That's why CompHealth, the oldest, largest locum tenens organization in the United States, can help make choices easier for you. Any specialty can be covered including: F.P., I.M., Rad., Anes., and OB/GYN. With a large selection of reliable, qualified physicians to choose from, CompHealth provides physicians, hospitals, clinics and communities with dependable locum tenens coverage, allowing you to keep your practice covered without inconvenience or concern. Turn a difficult decision into an easy choice. Contact COMPHEALTH, 175 West 200 South, Suite 2003, Salt Lake City, UT 84101 (801) 532-1200.

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Emergency Medicine Positions—available with emergency physician group in PA, NY, NJ, VA, WVA, MD and throughout New England, the Southeast and the Midwest, including all suburban, rural and metropolitan areas. Fee-for-service with minimum guarantee provided. Malpractice paid. Practice credits toward board certification. Physician department directors also desired. Please send resume to: NEEMA Emergency Medical, Suite 400, 399 Market Street, Phila., PA 19106 or phone 215-925-3511 in PA, or 800-523-0776 outside PA.

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M.D. AUTO LEASING COMPANY, catering for the medical and allied professions, affiliated with (DLC) Dealers Leasing Corporation, has special car lease package plans, designed for physicians in medical groups, clinics and hospitals, and can also tailor one to your needs. See our half page ad in this issue. Write or call M.D. Auto Leasing Company, 100 Birch Hill, Albertson, N.Y. 11507, Phone (516) 484-9670.

TAX ATTORNEY & PENSION PLAN SPECIALIST—Former IRS Pension Plan Specialist and Revenue Agent—Professional Incorporation, Pension and Profit Sharing Plan annual administration including initial IRS qualification, annual filings, actuarial certification and employee statements of participation—No Insurance Required—References upon request—Jack Wachstock, 299 Broadway, New York, N.Y. (212) 349-2248.

CERTIFIED PUBLIC ACCOUNTANT—1980 tax returns and 1981 tax planning accomplished simultaneously by former Tax Manager of prominent international accounting firm, who now is in private practice. Midtown location. Jack Henderson, CPA. (212) 986-3716.

UNCLE SAM WANTS YOU

The U.S. Army Reserve has a critical shortage of physicians which could have serious consequences in the event of a mobilization for war or for national or local emergencies. As a physician, you are eligible to join up to the age of 58 if you have had no prior military service. If you're interested in learning more about the Reserve Medical Corps Program, write to: AMEDD Procurement Office, Ainsworth Health Clinic, Room 254, Fort Hamilton, Brooklyn, N.Y. 11252, or call (212) 836-4100, ext. 4060/4780.

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Manhattan: Financial District on Broadway with subway entrance in buil
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DOCTORS OFFICE SPECIALIST: FOR PROMPT, EFFICIENT SERV
in renting or subletting a Manhattan, NYC professional office, or to buy, se
appraise a co-op, contact Nathan H. Friedman, V.P., Douglas Elliman-Gib
& Ives, Inc., 575 Madison Ave., N.Y., N.Y. (212) 832-5571.

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service, direct exposure to Macy's and Alexanders Shopping Mall, Borough-
transportation at front door, excellent terms, Flatbush Ave. North exit on
Parkway. Call owner (212) 287-5013 or (212) 338-0400.

OFFICE AND RESIDENCE FOR SALE IN HEWLETT, Long Island. On g
practice in fully equipped office including x-ray and lab., etc. Beautiful h
with inground swimming pool. Must sell for appreciator leaving the cou
(516) 374-2579.

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old. Perfect for professional man. 4 bedrooms, 2½ baths tiled, lg living r
formal dining room, huge 18′ modern kitchen, lg family room, a/c, 2 car ga
gas heat, sprinkler system, raised brick patio, shuffleboard court in newly fe
yard. Lot size 60′ × 120′ many extras, rare find. Uniondale, $90,000 (516)
7245.

NEW JERSEY, NORTHERN BERGEN COUNTY—LUXURY Home-
combination. Custom built. 4 bedrooms, 2½ baths, living room, dining
den/fireplace, pool & cabanas. Office has 500 sq. ft. including 2 treatment r
bath, two entrances, waiting room, nurse and private offices. No practi
sale. (201) 568-4765.

WESTHAMPTON BEACH, LONG ISLAND-PRIME AREA, treed acre, r
ated colonial, designer kitchen, formal dining room, 2 fireplaces, 8 bedroom
baths, income producing separate apartment, 2 car garage with apartment, G
pool, room tennis court, assumable mortgages $275,000. (516) 288-2053.

SARATOGA SPRINGS, N.Y., Lake front lot. Large wooded lot with 273 foot
frontage on pristine mountain lake just 20 minutes from Saratoga Springs.
privacy yet convenient to Performing Arts, Race Track, etc. $19,500. As
Rey Wells, days (518) 785-4141, evenings (518) 899-4844.

SPACE AVAILABLE IN REGO PARK, Queens in established medical cent
opthalmologist or medical or surgical subspecialties. Call (212) 592-3200.

ADIRONDACK ESTATE—25 ACRES nestled among mountains and tow
pines, charming 3 year custom designed cedar-stone home, matching barn, h
stalls, coral, modern oak kitchen, Jennair, center island, 2 bedrooms, 2 b
spiral staircase to master bedroom overlooking 3 acre swimming, boating p
Excellent terms. Peggy Reagan (518) 494-4185.

what goes on IN CONTINUING MEDICAL EDUCATION

NEW YORK STATE **APRIL 1981**

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Please send information to the Editor, WHAT GOES ON,
420 Lakeville Road, Lake Success, New York 11042
Telephone 516-488-6100.

Compiled by the Division of Scientific Activities
George J. Lawrence, Jr., M.D., Director
Mrs. Elizabeth H. Daepp, Editor
Philip Keating, Business Manager

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NEW YORK CITY

Jewish Hospital and Medical Center of Brooklyn

555 Prospect Place
Brooklyn
* B-51 Conference Room, Basement, Leviton Building

April 1
TREATMENT OF CANCER OF THE STOMACH
Man H. Shui, M.D.

April 8
CUTANEOUS T CELL LYMPHOMA
Richard L. Edelson, M.D.

April 15
A CHEMOTHERAPEUTIC APPROACH TO COLORECTAL CANCER
Nancy E. Kemeny, M.D.

April 29
AMERICAN SOCIETY OF CLINICAL ONCOLOGY
CREDIT: AMA Cat. 1

For further information contact Jewish Hospital and Medical Center of Brooklyn, 555 Prospect Place, Brooklyn 11238. Tel: 212/240-1211/1212 Division of Hematology.

Beth Israel Medical Center cosponsored by The Page and William Black Post-Graduate School of Medicine, (CUNY)

* Hospital for Joint Diseases/Orthopaedic Institute
301 East 17th Street

April 1, 8:30 a.m.–4:00 p.m., Wednesday
THE ETIOLOGY, DIAGNOSIS AND MANAGEMENT OF KIDNEY STONES
Arnold Melman, M.D.
FEE: TO BE ANNOUNCED CREDIT: AMA Cat. 1 (6 hrs.)

Westchester Square Hospital in collaboration with Albert Einstein College of Medicine

1625 St. Peters Avenue
Bronx
* Conference Room

April 1, 4:00–5:30 p.m., Wednesday
DEEP AND SUPERFICIAL THROMBOPHLEBITIS
Gerald Sosler, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)

April 15, 4:00–5:30 p.m., Wednesday
UPDATE ON PROSTATIC DISEASE
Roberto Reid, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)

Doctors Hospital

170 East End Avenue

April 2, 4:15 p.m., Thursday
ENDOCRINE ASPECTS OF CLINICAL PRACTICE
ADRENAL HYPERFUNCTION
J. Lester Gabrilove, M.D.
NO FEE CREDIT: AMA Cat. 1 (1½ hrs.)

For further information contact Clifford L. Spingarn, M.D., Chairman, Committee on Continuing Medical Education, Doctors Hospital, 170 East End Avenue, New York 10028. Tel: 212/535-3000.

Lenox Hill Hospital

100 East 77th Street
* Hospital's Einhorn Auditorium
131 East 76th Street

April 2–4
MANAGEMENT OF THE INFERTILE COUPLE
Wayne H. Decker, M.D.

FEE:		CREDIT:	
	$325.		AMA Cat. 1 (16 hrs.)
	$150.	residents	ACOG 16 cognates

For further information contact New York Fertility Research Foundation, 123 East 89th Street, New York 10028. Tel: 212/TR 6-9300.

Lenox Hill Hospital

100 East 77th Street
* Hospital's Einhorn Auditorium
131 East 76th Street

April 24–25
UPDATE IN HUMAN SEXUALITY
Don Sloan, M.D.

FEE:		CREDIT:	
	$150.		AMA Cat. 1 (11 hrs.)
	$75.	students	

For further information contact the Department of Medical Education, Lenox Hill Hospital, 100 East 77th St., New York 10021. Tel: 212/794-5181. For more information contact Harlan Conti, Department of Public Relations. Tel: 212/794-4500.

Albert Einstein College of Medicine of Yeshiva University cosponsored by the National Cancer Institute (NSABP Cancer Control Network) and The American Cancer Society, New York City Division

1300 Morris Park Avenue
Bronx
* Van Etten Hospital, Room 523
4:00–5:30 p.m.

April 3
ADULT VS. CHILDHOOD LEUKEMIA
S. R. Harris, M.D.

April 17
CURRENT STATUS OF IMMUNOLOGY IN ONCOLOGY
B. H. Kaplan, M.D.
CREDIT: AMA & AAFP Cat. 1

For further information contact Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx 10461. Tel: 212/430-2000.

Saint Mary's Hospital of Brooklyn Division of the Catholic Medical Center of Brooklyn and Queens, Inc.

170 Buffalo Avenue
Brooklyn

April 8, 8:00–9:00 a.m., Wednesday
HYPERTHYROIDISM IN THE ELDERLY
Surendrakumar D. Mahadevia, M.D.
NO FEE CREDIT: AMA Cat. 1

April 23, 12 noon–1:00 p.m., Thursday
CONTROVERSY IN THE USE OF BRONCHODILATORS AND OXYGEN TOXICITY
Anthony Mastellone, M.D.
NO FEE CREDIT: AMA Cat. 1

For further information contact St. Mary's Hospital Division of the Catholic Medical Center, Department of Medicine, 170 Buffalo Avenue, Brooklyn 11213. Tel: 212/774-3600 ext. 2044.

New York Medical College

* Coler Memorial Hospital
New York City Health and Hospitals Corporation
Roosevelt Island

April 13–17
ELECTROMYOGRAPHY AND ELECTRODIAGNOSIS COURSE
FEE: $315. CREDIT: AMA Cat. 1

For further information contact Joseph B. Rogoff, M.D., Course Director, Rehabilitation Medicine, Coler Memorial Hospital, Roosevelt Island 10044.

New York University Post-Graduate Medical School

550 First Avenue
* Schwartz Lecture Hall
Classroom F
401 East 30th Street
April 11, 9:00 a.m.-1:15 p.m.
MICROSURGERY: IMPACT ON GENERAL MEDICAL AND SURGICAL SPECIALTIES
William W. Shaw, M.D.
FEE: $35. CREDIT: AMA Cat. 1 (4 hrs.)
For further information contact Registration Office, NYU Post-Graduate Medical School, 550 First Avenue, New York 10016. Tel: 212/679-8745.

American College of Cardiology sponsored by Albert Einstein College of Medicine

1300 Morris Park Avenue
Bronx
* Ground Hyatt
42nd Street & Lexington Avenue
April 16-18
NEW DIAGNOSTIC AND THERAPEUTIC MODALITIES IN CARDIOLOGY
Edmund H. Sonnenblick, M.D., James Scheuer, M.D.
For further information contact American College of Cardiology, 9111 Old Georgetown Road, Bethesda, Maryland 20014. Tel: 301/897-5400.

American College of Cardiology sponsored by The Page and William Black Post-Graduate School of Medicine of the Mt. Sinai School of Medicine (CUNY)

* The Mount Sinai Medical Center
One Gustave L. Levy Place
April 27-May 1
CONSULTANT'S COURSE IN CARDIOLOGY
Richard Gorlin, M.D., Louis E. Teichholz, M.D., Simon Dack, M.D., Ephraim Donoso, M.D.
For further information contact American College of Cardiology, 9111 Old Georgetown Road, Bethesda, Maryland 20014. Tel: 301/897-5400.

New York Hospital-Cornell Medical Center

525 East 68th Street
* Uris Auditorium
The New York Hospital-Cornell Medical Center
1300 York Avenue
April 18, 9:30 a.m.-5:00 p.m., Saturday
CHANGING CONCEPTS OF HYPNOSIS-PERSPECTIVES ON MILTON H. ERICKSON
John Patten, M.D., Sidney Rosen, M.D., Jeffrey Ross, M.D., Paul Lounsbury, M.A. and Nancy Winston, M.S.W.
FEE: $75. CREDIT: AMA Cat. 1 (6 hrs.)
For information contact Ruth Pollack, PWC 111, The New York Hospital-Cornell Medical Center, 525 East 68th Street, New York 10021. Tel: 212/472-4344.

State University of New York Downstate Medical Center

450 Clarkson Avenue
Brooklyn
April 27, 4:00-5:00 p.m.
VISITING PROFESSOR PROGRAM
PHARMACOKINETICS & DYNAMICS OF MUSCLE RELAXANTS
April 28, 5:00-6:00 p.m.
AN UPDATE ON BLOOD TRANSFUSIONS AND THEIR REACTIONS
* Alumni Memorial Hall, 2nd Floor
Tuesday, 5:00-6:00 p.m., (When Visiting Professor is not scheduled)
ANESTHESIA GRAND ROUNDS
For further information contact Abraham I. Raskob, M.D., Clinical Associate Professor, Program Coordinator, Department of Anesthesiology, State University of New York Downstate Medical Center, 450 Clarkson Avenue, Brooklyn 11203. Tel: 212/735-3344.

Downstate Medical Center (SUNY)

450 Clarkson Street
Brooklyn
* Basic Sciences Building—Room 8-62
April 29-May 5, 9:00 a.m.
KERATOPLASTY—1981
Richard C. Troutman, M.D., Jeffrey Freedman, M.D., Maurice H. Luntz, M.D.
CREDIT: AMA Cat. 1
For further information contact Downstate Medical Center, SUNY, 450 Clarkson Avenue, Brooklyn 11203. Tel: Office of Public Affairs, 212/270-1961.

Albert Einstein College of Medicine Montefiore Hospital and Medical Center

1300 Morris Park Avenue
Bronx
April 3
RECENT ADVANCES IN GLAUCOMA MANAGEMENT
Doctors Edward Palmer, Rajendra K. Bansal, Michael Kass, M. Bruce Shields, Daniel Weiss, Thom J. Zimmerman
FEE: $60.
$30. Residents
For further information contact Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx 10461. Tel: 212/430-2822.

Institute of Continuing Biomedical Education

222 East 19th Street
April 6-May 29
COMPREHENSIVE PROGRAM IN BASIC MEDICAL SCIENCES AND CLINICAL MEDICINE FOR FOREIGN MEDICAL GRADUATES AND STUDENTS FOR ECFMG, FLEX, VQE, MSKP
FEE: $2,000. Basic Sciences Curriculum
$1,000. Clinical Medicine Curriculum
$25. Registration Fee (not refundable)
For further information contact Natale Colosi, M.D., Dean, 222 East 19th Street, New York 10003. Tel: 212/677-4728.

The Page and William Black Post-Graduate School of Medicine of the Mount Sinai School of Medicine (CUNY)

* The Mount Sinai Medical Center
One Gustave L. Levy Place
April 6, 13, Mondays
CARDIOPULMONARY RESUSCITATION FOR HEALTH PROFESSIONALS
Douglas DiStefano, M.D., Nicholas Galli, Ph.D.
FEE: TO BE ANNOUNCED CREDIT: AMA Cat. 1
April 27-May 1, Monday-Friday
AMERICAN COLLEGE OF CARDIOLOGY CONSULTANT'S COURSE
Simon Dack, M.D., Ephraim Donoso, M.D., Richard Gorlin, M.D., Louis E. Teichholz, M.D.
FEE: TO BE ANNOUNCED CREDIT: AMA Cat. 1

Page and William Black Post-Graduate School of Medicine of the Mount Sinai School of Medicine (CUNY)

* Beth Israel Medical Center
10 Nathan D. Perlman Place
April 10, 8:30 a.m.–1:00 p.m.
RECENT TRENDS IN DIAGNOSIS AND MANAGEMENT OF SPINAL ARTHRITIC DISORDERS
Judith Hertanu, M.D., D. Pramila, M.D., J. T. Demopoulos, M.D.
FEE: $25. CREDIT: AMA Cat. 1 (4½ hrs.)
April 4–5, Saturday and Sunday
BRIEF PSYCHOTHERAPIES
Peter Sifneos, M.D.
FEE: TO BE DETERMINED CREDIT: AMA Cat. 1
For further information contact Medical Education Office, Beth Israel Medical Center, 10 Nathan D. Perlman Place, New York 10003. Tel: 212/420-2849.

QUEENS COUNTY

Flushing Hospital and Medical Center cosponsored with Memorial Sloan Kettering Center

Parsons Boulevard and 45th Avenue
Flushing
April 2
TREATMENT OF MALIGNANT LYMPHOMA
David Strauss, M.D.
For further information contact Flushing Hospital and Medical Center, Parsons Boulevard and 45th Avenue, Flushing 11355. Tel: 212/670-5000.

American Cancer Society

Queens Division, Inc.
111-15 Queens Boulevard
Forest Hills
* Antuns
Queens Village
April 4, Saturday
SEMINAR ON THE PRESENT STATUS OF MANAGEMENT OF ADENOCARCINOMA OCCURING IN THE FEMALE BREAST
CREDIT: AMA Cat. 1
For further information contact American Cancer Society, 111-15 Queens Boulevard, Forest Hills 11375. Tel: 212/263-2224.

The Jamaica Hospital Medical Center

89th Avenue and Van Wyck Expressway
Jamaica
* Community Room
8:30 a.m.–9:30 a.m., Mondays
CARDIOLOGY
April 6
SURGICAL MANAGEMENT OF STROKE
Malcolm Perry, M.D.
April 20
ANTIBIOTIC TREATMENT AND PROPHYLAXSIS OF ENDOCARDITIS
Robert H. Lapin, M.D.
CARDIOLOGY ROUNDS are conducted on alternate Mondays, 8:30–9:30 a.m., in the Community Room
Clement Weinstein, M.D. and Staff
ECG & CLINICAL CARDIOLOGY CONFERENCES are held on alternate Thursdays, from Noon to 1:00 p.m.
Francis E. Raia, M.D.
PRIMARY CARE CONFERENCES
* Community Room
11:45 a.m.–12:45 p.m., Monday
GYNECOLOGY
April 13
SEXUALLY TRANSMISSIBLE DISEASES
M. Maurice Abitbol, M.D.
ORTHOPEDICS
* Community Room
11:45 a.m.–12:45 p.m., Mondays
April 20
THE HIP & TOTAL REPLACEMENT
Felix Rosenhain, M.D.
OTOLARYNGOLOGY
* Community Room
11:45 a.m.–12:45 p.m., Mondays
April 6
CURRENT STATUS OF OTOLARYNGEAL SURGERY
Ali Agarabi, M.D.
UROLOGY
* Community Room
11:45 a.m.–12:45 p.m., Mondays
April 27
PEDIATRIC UROLOGY
Paul J. Cutrofello, M.D.
ENDOCRINOLOGY & METABOLISM
* Community Room
10:45–11:45 a.m., Tuesdays
April 28
THE PARATHYROIDS & VITAMIN D
Edward Condon, M.D.
ENDOCRINOLOGY ROUNDS are conducted monthly, from Noon to 1:00 p.m., in the Community Room, on Tuesdays
Howard D. Kolodny, M.D. and Staff
HEMATOLOGY
* Community Room
10:45–11:45 a.m., Tuesdays
April 21
DISEASES OF IRON METABOLISM
Morton Spivack, M.D.
HEMATOLOGY GRAND ROUNDS are conducted weekly, on Fridays, from 1:30 to 2:30 p.m., in the First Floor Conference Room
HEMATOLOGY CONFERENCES are conducted monthly, from noon to 1:00 p.m., in the Community Room, on Tuesdays
Malcolm E. Levine, M.D. and Staff
NEPHROLOGY
* Community Room
10:45–11:45 a.m., Tuesdays
April 14
TREATMENT OF THE COMPLICATED HYPERTENSIVE PATIENT
Peter Bluestone, M.D.
NEPHROLOGY ROUNDS are conducted monthly, from noon to 1:00 p.m. in the Community Room, on Tuesdays
Amarjit Singh, M.D., Emmanuel B. Masih, M.D. and Staff
NEUROLOGY
* Community Room
10:45–11:45 a.m., Tuesdays
April 7
NEUROLOGICAL MANIFESTATIONS OF LYMPHOMAS
Charles R. Plank, M.D.
The following *NEUROLOGY LECTURES* are held on Wednesdays, from 9:00–10:30 a.m., in the Trump Pavilion: *MEDICAL GRAND ROUNDS—PROGRESS IN MEDICINE*
April 29
CAT SCANS OF THE HEAD AND BODY
Marie Gade, M.D.
NEUROLOGY ROUNDS are conducted monthly, from noon to 1:00 p.m. in the Community Room, on Tuesdays
Alfred C. Bannerman, M.D.
TUESDAYS, the second Tuesday of the month, *INFECTIOUS DISEASES ROUNDS* are conducted from 3:30–4:30 p.m., in the Community Room
Robert H. Lapin, M.D.
MEDICAL GRAND ROUNDS & PROGRESS IN MEDICINE

- Trump Pavilion
  9:00–10:30 a.m., Wednesdays

April 1
SARCOIDOSIS
Alvin S. Teirstein, M.D., Florette and Ernst Rosenfeld and Joseph Solomon

April 8
INHERITABLE POLYPOSIS SYNDROME
Martin Lipkin, M.D.

April 15
CLINICAL SIGNIFICANCES OF PROSTAGLANDINS
Peter Barland, M.D.

April 22
MEDICAL MANAGEMENT OF RHEUMATOID ARTHRITIS
David Kaplan, M.D.

April 29
CAT SCANS OF THE HEAD AND BODY
Marie Gade, M.D.

WEDNESDAYS, 1:00–2:00 p.m., *TUMOR BOARD*—Fourth Wednesday

CLINICAL PATHOLOGY CONFERENCE, Assembly Room

INFECTIOUS DISEASES

- Community Room
  10:45–11:45 a.m., Thursdays

April 16
ENDOCARDITIS: DIAGNOSIS & MANAGEMENT
Robert H. Lapin, M.D.

INFECTIOUS DISEASES ROUNDS are conducted on the Second Tuesday, from 3:30 to 4:30 p.m., in the Community Room Robert H. Lapin, M.D.

ONCOLOGY

- Community Room
  10:45–11:45 a.m., Thursdays

April 2
TREATMENT OF ADVANCED OVARIAN CANCER
Thomas B. Hakes, M.D.

PULMONARY DISEASES

- Community Room
  10:45–11:45 a.m.

April 9
THE PLACE OF LUNG SCANS, CAT SCANS, SONOGRAPHY & ANGIOGRAPHY IN THE DIAGNOSIS OF PULMONARY DISEASES
Anita Moallem, M.D.

The following *PULMONARY DISEASES LECTURES* are held on Wednesdays, from 9:00–10:30 a.m., in the Trump Pavillion:
MEDICAL GRAND ROUNDS—PROGRESS IN MEDICINE

April 1
SARCOIDOSIS
Alvin S. Teirstein, M.D., Florette and Ernst Rosenfeld and Joseph Solomon Professor of Medicine and Director

PULMONARY DISEASES ROUNDS are conducted monthly, from Noon to 1:00 p.m., in the Community Room, on Thursdays, Gerald M. Greenberg, M.D. and Staff

RHEUMATOLOGY

- Community Room
  10:45–11:45 a.m.

April 23
RETICULOENDOTHELIAL FUNCTION IN RHEUMATIC DISEASE
Ted M. Parris, M.D.

The following *RHEUMATOLOGY LECTURES* will be held on Wednesday, from 9:00–10:30 a.m., in the Trump Pavilion:
MEDICAL GRAND ROUNDS—PROGRESS IN MEDICINE

April 15
CLINICAL SIGNIFICANCES OF PROSTAGLANDINS
Peter Barland, M.D.

April 22
MEDICAL MANAGEMENT OF RHEUMATOID ARTHRITIS
David Kaplan, M.D.

RHEUMATOLOGY ROUNDS are conducted monthly, from Noon to 1:00 p.m. in the Community Room, on Thursdays, William A. O'Connell, M.D. and Staff *ALTERNATE THURSDAYS*, Noon to 1:00 p.m., *ECG & CLINICAL CARDIOLOGY CONFERENCES*

Francis E. Raia, M.D.

MEDICAL GASTROENTEROLOGY

- Community Room
  10:45–11:45 a.m., Fridays

April 3
IMMUNOGLOBULIN DEFICIENCY & MALABSORPTION
Arthur E. Lindner, M.D.

April 24
CURRENT CONCEPTS OF DIET IN GASTROENTEROLOGY
Gerlad Friedman, M.D.

The following *GASTROENTEROLOGY LECTURES* are held on Wednesdays, from 9:00–10:30 a.m., in the Trump Pavilion:
MEDICAL GRAND ROUNDS-PROGRESS IN MEDICINE

April 8
INHERITABLE POLYPOSIS SYNDROME
Martin Lipkin, M.D.

MEDICAL GASTROENTEROLOGY ROUNDS are conducted on alternate Fridays, in the Community Room, 10:45–11:45 a.m., Robert T. Todaro, M.D., and Staff

FRIDAYS, Noon to 1:00 p.m., Assembly Room *RADIOLOGY CONFERENCES*, Emerick Demeter, M.D. and Staff, alternating with *MEDICAL-PATHOLOGY-MORTALITY CONFERENCE*, Elizabeth Khayat, M.D. and Staff

FRIDAYS, 1:00–2:30 p.m., First Floor Conference Room
HEMATOLOGY GRAND ROUNDS

For further information contact The Jamaica Hospital, 89th Avenue and Van Wyck Expressway, Jamaica 11418. Tel: 212/657-1800.

Flushing Hospital and Medical Center

Parsons Boulevard and 45th Avenue
Flushing

April 5, 9:00 a.m.–12 Noon
FLUIDS, ELECTROLYTES & ACID BASE BALANCE AND THE INTERPRETATION OF ARTERIAL BLOOD GASES DISTURBANCES IN CALCIUM, PHOSPHATE & MAGNESIUM METABOLISM
CREDIT: AMA Cat. 1 & AAFP

- 4-C Conference Room

April 7
CURRENT CONCEPTS IN HYPERTENSION: WHO TO TREAT AND WHAT DRUGS TO USE
Hugh Carroll, M.D.

April 14
TREATMENT OF INTRACTABLE ASCITES
Simon Wapnick, M.D.

April 28
SEIZURE DISORDERS: BASIC APPROACH TO ASSESSMENT, DIAGNOSIS & MANAGEMENT
Eileen P. G. Vining, M.D.
CREDIT: AMA Cat. 1 & AAFP

For further information contact Flushing Hospital and Medical Center, Parsons Boulevard and 45th Avenue, Flushing 11355. Tel: 212/670-5741.

Astoria General Hospital in collaboration with The Albert Einstein College of Medicine

25-10 30th Avenue
Long Island City

- Conference Room
  9:00 a.m.–11:00 a.m., Saturdays

April 4
THE USE AND ABUSE OF STRESS TESTING
William Frishman, M.D.

April 25
A REVIEW OF CARDIAC PHARMACOLOGY
William Frishman, M.D.

April 11
PREPARATION OF THE SURGICAL PATIENT
Martin Tudor, M.D.
CREDIT: AMA Cat. 1 & AAFP

For further information phone 212/932-1000, ext. 200.

NASSAU

Long Island Jewish-Hillside Medical Center & The Post Graduate Institute for Medical and Dental Education, New Hyde Park and the Health Sciences Center, SUNY (Stony Brook)

* Teaching Center Auditorium, Room 201C
Long Island Jewish-Hillside Medical Center
New Hyde Park
8:30–9:30 a.m., Thursdays
April 2
MELANOMA
Irving Ariel, M.D.
April 9
CORRECTION OF CONGENITAL ANOMALIES OF THE HAND
Thomas Palmieri, M.D.
April 16
GUEST LECTURER
MANAGEMENT OF RETROPERITONEAL HEMATOMA IN TRAUMA
Gerald Shaftan, M.D.
April 23
APPENDICITIS—PROBLEMS AND SOLUTIONS
Ira Teicher, M.D.
April 30
MANAGEMENT OF GRAVES DISEASE
David Wolk, M.D.
NO FEE CREDIT: AMA Cat. 1
For further information contact Reid Aaron, Long Island Jewish-Hillside Medical Center, New Hyde Park 11042. Tel: 212/470-2663.

Nassau County Medical Center

2001 Hempstead Turnpike
East Meadow
* Amphitheater Dynamic Care Building
10:00 a.m., Thursdays
April 2
TREATING A SICK PATIENT
Eric J. Cassell, M.D.
April 9
NON-ALLERGIC ASTHMA
Ira Rezak, M.D.
April 16
NON-HODGKIN'S LYMPHOMA: CLINICAL PATHOLOGIC CORRELATIONS
John Bennett, M.D.
April 23
PERIARTERITIS NODOSA (PAN)
Michael Lockshin, M.D.
April 30
CRISES IN PUBLIC HEALTH
John J. Dowling, M.D.
CREDIT: AMA Cat. 1
For further information contact Ethel Ford, CME Coordinator, Department of Medicine, Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow 11554. Tel: 516/542-3713.

Nassau County Medical Center

2201 Hempstead Turnpike
East Meadow
April thru June
ORTHOPEDIC LECTURES FOR PEDIATRICIANS
TARGET GROUP: PEDIATRICIANS
NO FEE CREDIT: AMA Cat. 1 (10 hrs.)
For further information contact Martin Gruber, M.D., Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow 11554. Tel: 516/431-4424.

April 22, 9:00 a.m.–5:00 p.m.
FIFTH ANNUAL SYMPOSIUM ON MOTOR DISORDERS
TARGET GROUP: FAMILY PRACTITIONERS
FEE: $50. CREDIT: AMA Cat. 1 (7 hrs.)
For further information contact Arminius Cassvan, M.D., Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow 11554. Tel: 516/542-2835.

Nassau County Medical Center

2201 Hempstead Turnpike
East Meadow
April 24
OPHTHALMIC REVIEW AND DEVELOPMENTS—1981
Mitchel Ashkanazy, M.D., Rose Lombardo, M.D., James Maisel, M.D., Louis Roberts, M.D.
For further information contact Elsa K. Rahn, M.D., Director, Division of Ophthalmology, Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow 11554. Tel: 516/542-0123.

Long Beach Memorial Hospital cosponsored by The Page and William Black Post-Graduate School of Medicine of the Mount Sinai School of Medicine (CUNY)

455 E. Bay Drive
Long Beach
April 7, 4:00–6:00 p.m.
CALCIUM METABOLISM & OSTEOPOROSIS
Donald A. Bergman, M.D.
NO FEE CREDIT: AMA Cat. 1
For further information contact Community Relations Department, Long Beach Memorial Hospital, 445 E. Bay Drive, Long Beach 11561. Tel: 516/432-8000, ext. 362 or 363.

Nassau Hospital

259 First Street
Mineola
April 28
FAMILY PRACTICE
UROLOGICAL UPDATE—1981
Sheldon Rudansky, M.D.
INTERNAL MEDICINE
* Breed Conference Room
11:00 a.m., Mondays
April 6
EMERGENCY TREATMENT OF THE PSYCHIATRIC PATIENT
Louis Pasternak, M.D.
April 13
THE PELVIC MASS—DIAGNOSTIC PROBLEMS OF OVARIAN NEOPLASM
Patrick F. Vetere, M.D.
April 20
TRANSFUSION REACTIONS: INCIDENCE, CAUSES, DIAGNOSES AND MANAGEMENT
Joseph G. Fink, M.D.
April 27
SOME ADVANCES IN OPHTHALMOLOGY
Victor Villadolid, M.D.
CRITICAL CARE CONFERENCES
* Breed Conference Room
11:00 a.m., Tuesdays
April 7
STROKE
Angelito Tan, M.D.
April 14
RECOGNITION AND TREATMENT OF ACID BASE IMBALANCE
John Rooney, M.D.

April 21
GLOMERULOPATHIES
Neal Ahlbaum, M.D.
April 28
THE NON-INVASIVE EVALUATION OF THE CRITICALLY ILL CARDIAC PATIENT—ENDOCARDIOGRAPHY, MYOCARDIAL IMAGING AND GATED VENTRICULAR FUNCTION STUDIES
M. Qamar Zaman, M.D.
ADVANCES IN MEDICINE
- Breed Conference Room
10:00 a.m.–Noon, Wednesdays
April 1
SJOGREN'S SYNDROME
Harry Bienenstock
April 8
VERTIGO
W. B. Berkowitz, M.D.
April 15
IMMUNOLOGY OF THE LUNG AND HYPERSENSITIVITY LUNG DISEASE
Harry Steiburg, M.D.
April 22
HYPERTENSION DETECTION AND FOLLOW-UP PROGRAM
M. Donald Blaufox, M.D.
April 29
CARDIAC REHABILITATION AND CARE OF PATIENT WITH HEART DISEASE
John Naughton, M.D.
PROBLEM SOLVING CONFERENCES
- Breed Conference Room
11:00 a.m., Fridays
April 3
HOW DO YOU EVALUATE THE PATIENT WITH VALCULAR HEART DISEASE
Nicholas James, M.D.
April 10
VENEREAL DISEASES
Burke A. Cunha, M.D.
April 17
RECOGNITION AND TREATMENT OF TUBERCULOSIS
John Rooney, M.D.
April 24
ABNORMALITIES OF WATER METABOLISM
Edward Kowalski, M.D.
NUCLEAR MEDICINE CONFERENCES
- Breed Conference Room
11:00 a.m., Wednesday
April 22
HYPERTENSION DETECTION AND FOLLOW-UP PROGRAM
M. Donald Blaufox, M.D.
OBSTETRICS AND GYNECOLOGY
- Breed Conference Room
8:00 a.m.
April 10
THE HYSTEROSALPINGOGRAM
Ira Spector, M.D.
UPDATE IN GYNECOLOGIC ONCOLOGY
- Breed Conference Room
9:00 a.m.
April 24
RECENT DEVELOPMENTS IN EARLY CANCER DETECTION (ENDOMETRIUM AND OVARY)
UPDATE IN GYN AND OBSTETRICAL PATHOLOGY
- Breed Conference Room
8:00 a.m.
April 3
TRANSFUSION REACTIONS
UPDATE IN GYNECOLOGIC ENDOCRINOLOGY
- Breed Conference Room
9:00 a.m.
Raymond L. Vande Wiele, M.D.
April 3
NORMAL AND ABNORMAL SEXUAL DIFFERENTIATION I
UPDATE IN PERINATOLOGY
- Breed Conference Room
9:00 a.m.
Steven A. Klein, M.D.
April 17
EFFECTS OF NEWER OBSTETRICAL TECHNIQUES (LAMAZE) ON MATERNAL AND PERINATAL OUTCOME
OPHTHALMOLOGY
- Board Room
5:00 p.m., Tuesday
MODERN TRENDS IN OPHTHALMOLOGY
April 7
NEUROLOGIC CAUSES OF VISUAL IMPAIRMENT
Arthur Wolintz, M.D.
PEDIATRICS
- 6 New Conference Room
1:00 p.m., Thursdays
NEONATAL LECTURE SERIES
Paul F. Twist, D.O.
April 2
DIAPHRAGMATIC HERNIA IN NEWBORN
April 9
TRANSPLACENTAL VIRAL INFECTIONS
April 16
SKULL MALFORMATIONS
April 23
SPINAL CORD DEFORMITIES
April 30
INFANT NUTRITION FILM—PART I
PERINATAL/NEONATAL CONFERENCE
- Breed Conference Room
12:00 noon, Fridays
Steven A. Klein, M.D., Paul F. Twist, D.O.
April 3
MORBIDITY AND MORTALITY CONFERENCE
April 10
SHORT AND LONG TERM EFFECTS OF DRUGS USED IN OBSTETRICAL AND ANESTHESIA
April 24
PERINATAL CASE STUDIES
RADIOLOGY GUEST LECTURE SERIES
- Breed Conference Room
3:00 p.m., Thursdays
April 2
TUMOR AND TUMOROUS CONDITIONS OF THE KIDNEY IN THE NEWBORN CHILD
Jack Robinowitz, M.D.
THORACIC AND CARDIOVASCULAR SURGERY
- Breed Conference Room
8:00 a.m., Monday
April 27
PACEMAKER MANAGEMENT OF TACHYARRHYTHMIAS
Seymour Furman, M.D.
UROLOGY GUEST LECTURES
- Breed Conference Room
7:45 a.m., Tuesday
April 7
MIRCEA N. GOLIMBU, M.D.
For further information contact G. E. Lessard, Ph.D., Nassau Hospital, 259 First Street, Mineola 11501. Tel: 516/663-2521.

North Shore University Hospital

300 Community Drive
Manhasset
- Ketcham Boardroom
8:00 a.m.
April 7
DIVISION OF OPHTHALMOLOGY
CONFERENCE SCHEDULE SPRING 1981
THERAPEUTIC CONJUNCTIVAL FLAPS
Jorge Buxton, M.D.

April 14
THE EYE AND COLLAGEN VASCULAR DISEASE
Stephen Bloomfield, M.D.
April 21
USE OF THE MACKOOL-HESLIN OCUSYSTEM FOR PHACOEMULSIFICATION AND VITRECTOMY
Richard Mackool, M.D.
April 28
CLINICAL
For further information contact North Shore University Hospital, 300 Community Drive, Manhasset 11030.

Long Island Jewish-Hillside Medical Center and the Health Sciences Center State University of New York at Stony Brook

New Hyde Park
8:00–9:30 p.m., Monday
April 13
CLINICAL ULTRASONOGRAPHY—THE ROLE OF ULTRASONOGRAPHY IN DIRECTING PATIENT MANAGEMENT
D. Jackson Coleman, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)
For further information contact Continuing Education Coordinator, Long Island Jewish-Hillside Medical Center, New Hyde Park 11042. Tel: 212/470-2114.

SUFFOLK COUNTY

Brookhaven Memorial Hospital Medical Center

101 Hospital Road
Patchogue
* 1st Floor Conference Room
7:50–9:00 a.m.
April 3
CLINICAL PROBLEMS IN FAMILY MEDICINE NON GONORRHEAL URETHRITIS/PROSTATISM
Richard Musto, M.D.
April 10
PROTOINURIA
Raymond Sherman, M.D.
April 24
HEMATURIA
Sung Jo Kim, M.D.
CREDIT: AMA Cat. 1 & AAFP
* 1st Floor Conference Room
8:30 a.m., Saturday
April 4
MEDICAL GRAND ROUNDS
Mark Kaplan, M.D.
CREDIT: AMA Cat. 1 & AAFP
* 1st Floor Conference Room
7:50 a.m.
April 7
PEDIATRIC CONFERENCES
ALLERGY, THE ATOPIC CHILD
Vincent Fontana, M.D.
CREDIT: AMA Cat. 1 & AAFP
For further information contact Dorothy S. Lane, M.D., Director of Medical Education, Brookhaven Memorial Hospital Medical Center, 101 Hospital Road, Patchogue 11772. Tel: 516/654-7797.

State University of New York at Stonybrook

*Health Sciences Center
April 8
MEDICAL GENETICS FOR THE PRACTITIONER
Fee: $50. CREDIT: AMA Cat. 1 (6 hrs.)
April 29–30
BEHAVIORAL MEDICINE
FEE: $100. CREDIT: AMA Cat. 1 (12½ hrs.)
For further information contact Office of Continuing Medical Education, School of Medicine (HSC), SUNY at Stony Brook, Long Island 11794. Tel: 516/246-2094/2135.

St. Charles Hospital cosponsored by St. Francis Hospital

200 Belle Terre Road
Port Jefferson
* St. Charles Classroom A
April 3, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
* St. Charles Lecture Room
April 7, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
CONVULSIVE DISORDERS
Joan Cracco, M.D.
* St. Charles Classroom A
April 10, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
April 14, 11:00 a.m.–12 Noon, Tuesday
OB/GYN CONFERENCE
ONCOLOGY IN GYNECOLOGY
Robert S. Schwartz, M.D.
* St. Charles Lecture Room
April 14, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
RETROGRADE CHOLANGIOGRAPHY
John Shea, M.D.
* St. Charles Classroom A
April 17, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
* St. Charles Lecture Room
April 17, 7:30 p.m., Monday
OPHTHALMOLOGY CONFERENCE
CATARACT SURGERY—INTRAOCULAR LENS IMPLANTATION
Charles B. Tulevech, M.D.
April 21, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
ENTERIC AND PARENTAL NUTRITION IN MANAGEMENT OF INTESTINAL FISTULAS
Stanley Crossland, M.D.
April 24, 8:00 a.m., Friday
FAMILY PRACTICE PROGRAM
OFFICE HEMATOLOGY
Joan V. Dobbs, M.D.
* St. Charles Classroom A
April 24, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
For further information contact Mary Rotolo, Department of Medical Education, St. Charles Hospital, 200 Belle Terre Road, Port Jefferson 11777. Tel: 516/473-2800.

Mather Memorial Hospital cosponsored by St. Francis Hospital

North Country Road
Port Jefferson
* Mather Conference Room
April 6, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE

SEMINARS IN ONCOLOGY
April 13, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
April 17, 7:00 a.m., Monday
ANESTHESIOLOGY CONFERENCE
ANESTHESIA FOR COLON RESECTION
Edward A. Norris, M.D.
April 17, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
April 27, 11:45 a.m.–1:00 p.m., Monday
TUMOR CONFERENCE
BONE TUMORS
Harish K. Malhotra, M.D.
April 28, 8:00 a.m.–1:00 p.m.
WORKSHOP ON THE THYROID
Marvin S. Wool, M.D., Henry Zellman, M.D.
For further information contact Mary Rotolo, Department of Medical Education, Mather Memorial Hospital, North Country Road, Port Jefferson 11777. Tel: 516/473-1320.

WESTCHESTER COUNTY

New York Medical College

Valhalla
* INSTRUCTIONAL TELEVISION PRESENTATION
April 2
SEMINAR IN PEDIATRIC SURGERY (LIVE)
PEDIATRIC INTENSIVE CARE
April 9
SEMINAR IN CANCER EDUCATION (PRETAPED)
PEDIATRIC TUMORS
April 23
BASIC SCIENCE DIALOG (LIVE)
WOUND HEALING
April 30
SEMINAR IN CANCER EDUCATION (PRETAPED)
COLON CANCER
For further information contact Saverio S. Bentivegna, M.D., Associate Dean Director, Continuing Medical Education, New York Medical College, Valhalla 10595. Tel: 914/347-5147.

ONEONTA

The A. O. Fox Memorial Hospital, The Mary Imogene Bassett Hospital and the Otsego County Medical Society

*Hartwick College Anderson Auditorium Oneonta
May 12, 12:30 p.m.–4:30 p.m., Thursday
PULMONARY DISEASE FOR CLINICIANS
William J. Hall, M.D., David S. Pratt, M.D., Donald Woloszyn, M.D.
FEE: $10.00 CREDIT: AMA Cat. 1 (3 hrs.)
AAFP Prescribed (3 hrs.)
For further information contact Office of Continuing Medical Education, The Mary Imogene Bassett Hospital, Cooperstown 13326. Tel: 607/547-3764.

BUFFALO

Roswell Park Memorial Institute

666 Elm Street
Buffalo
April 2
CONTROL OF PHENOTYPIC EXPRESSION IN NORMAL AND TRANSFORMED CELLS
Charles E. Wenner, M.D.
For further information contact Gayle Bersani, R.N., Cancer Control Coordinator, Roswell Park Memorial Institute, 666 Elm Street, Buffalo 14263. Tel: 716/845-4406.

State University of New York at Buffalo

3435 Main Street
Buffalo
* Erie County Medical Center
Buffalo
April 4, Saturday
VASCULAR SURGERY FOR CEREBRAL ISCHEMIA
* Buffalo Hilton
Buffalo
April 16, Thursday
INFECTIOUS DISEASES
For further information contact Gertrude Myers, Program Coordinator, State University of New York at Buffalo, 3435 Main Street, Buffalo 14214. Tel: 716/831-5526.

State University of New York at Buffalo

340 Humboldt Parkway
Buffalo
April 9–14
INTENSIVE REVIEW COURSE FOR FAMILY PHYSICIANS
CREDIT: AMA Cat. 1 (57 hrs.)
For further information contact V. Bhushan Bhardwaj, M.D., Family Practice Center, 840 Humboldt Parkway, Buffalo 14211. Tel: 716/897-2700.

State University of New York at Buffalo Childrens Hospital

219 Bryant Street
Buffalo
* Sheraton Inn—Buffalo East
Buffalo
April 11
A PERINATAL APPROACH TO PREVENTION AND MANAGEMENT OF NEONATAL RESPIRATORY DISTRESS
Ralph J. Wynn, M.D.
FEE: $50. CREDIT: AMA Cat. 1 (6 hrs.)
For further information contact Rayna Dutton, Coordinator, Continuing Medical Education, State University of New York at Buffalo, Children's Hospital, 219 Bryant Street, Buffalo 14222. Tel: 716/878-7689.

ROCHESTER

The Genesee Hospital an affiliated Hospital of The University of Rochester School of Medicine and Dentistry

224 Alexander Street
Rochester
* Douglas Auditorium
April 4, 9:00 a.m.–4:00 p.m., Saturday
FOURTH ANNUAL SPRING SEMINAR IN ANESTHESIOLOGY
CREDIT: AMA Cat. 1 (4 hrs.)
For further information contact the Department of Anesthesiology, 224 Alexander Street, Rochester 14607. Tel: 716/263-5265.

NEW HARTFORD

Upstate New York Chapter American College of Surgeons, Inc.

210 Clinton Road
New Hartford
* Hershey Lodge & Convention Center
Hershey, Pennsylvania

* *April 30–May 3*
THIRD NEW YORK STATE CONJOINED SURGICAL SYMPOSIUM
CREDIT: AMA Cat. 1 (20 hrs.)
For further information contact Upstate New York Chapter, American College of Surgeons, Inc., 210 Clinton Road, New Hartford 13413. Tel: 315/735-2203.

FUTURE EVENT

North Shore University Hospital

300 Community Drive
Manhasset

May 2
THE VIth ANNUAL NORTH SHORE UNIVERSITY HOSPITAL SYMPOSIUM
THERAPEUTIC MODALITIES
STATE OF ART LECTURE
ADVANCES OF CLINICAL SIGNIFICANCE
For further information contact Lionel U. Mailloux, M.D., Co-Chief, Division of Nephrology/Hypertension, North Shore University Hospital, 300 Community Drive, Manhasset 11030. Tel: 516/562-4384.

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The Medical Society of the State of New York invites the Deans of Medical Schools and the Administrators of Hospitals to send notices of continuing medical education including teaching days, important lectureships, courses, and similar programs for publication in WHAT GOES ON to: The Editor, WHAT GOES ON, Medical Society of the State of New York, 420 Lakeville Road, Lake Success, N.Y. 11042. Telephone: (516) 488-6100. This is a free service.

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June 25–28, 1981

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Arriving By: __________ Auto; __________ Plane; __________ Other

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SCHEDULE OF SCIENTIFIC MEETINGS

1981 ANNUAL CME ASSEMBLY

Medical Society of the State of New York
Niagara Falls Convention Center

FRIDAY, JUNE 26

Morning: Cardiovascular Diseases
Obstetrics & Gynecology
Gastroenterology, Colon & Rectal Surgery
Cancer Update 1981—General Session
Chest Diseases

Afternoon: Occupational Medicine, and Medical Legal & Workers' Compensation matters
Obstetrics & Gynecology
Gastroenterology, Colon & Rectal Surgery
Alcohol & the Unborn—General Session
Preventive Medicine
Otolaryngology & Maxillofacial Surgery
Dermatology & Syphilology

SATURDAY, JUNE 27

Morning: Ophthalmology
Internal Medicine
Surgery, Urology & Anesthesiology
Pathology, Radiology & Orthopedic Surgery
Neurosurgery

Afternoon: Ophthalmology
Internal Medicine
Computer Application to Office & Hospital Practice General Session

SUNDAY, JUNE 28

Morning: Allergy & Immunology
School Health & Pediatrics
Psychiatry & Family and General Practice
Plastic, Reconstructive & Maxillofacial Surgery
Physical Medicine & Rehabilitation, and Orthopedics
Neurology

CME CREDITS: Each program will be eligible for CME Category I Credits on an hour-for-hour basis.

SCIENTIFIC & TECHNICAL EXHIBITS

WGO-11

physicians' placement opportunities

Compiled by the
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ALBION, N.Y., contact Mary Ellen Seaman, Executive Secretary, Arnold Gregory Memorial Hospital, Albion 14411. Tel: 716/589-4422.

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ONEONTA, N.Y., contact Randolph E. Knob, M.D., Director or Mr. F. M. Isbell, Adm., A. O. Fox Memorial Hospital, 1 Norton Avenue, Oneonta 13820. Tel: 607/432-2000.

OSWEGO, N.Y., contact J. Sherwood Dunham, Oswego Hospital, 110 West Sixth Street, Oswego 13126.

POUGHKEEPSIE, N.Y., contact Joseph F. Nowoslawski, M.D., 399 Market Street, Suite 400, Philadelphia, Pa. 19106. Tel: 800/523-0776.

ROCHESTER, N.Y., contact Joseph F. Nowoslawski, M.D., 399 Market Street, Suite 400, Philadelphia, Pa. 19106. Tel: 800/523-0776.

ENT

LAWRENCE, N.Y., contact Phelps Luria, M.D., 218 Broadway, Lawrence 11559. Tel: 516/FR 1-1896 or 212/FA 7-4934.

NEW YORK, N.Y., contact F. P. Guidotti, M.D., Health Center Family Medical Office, 321 West 44th Street, New York 10036. Tel: 212/JU 6-1550.

OLEAN, N.Y., contact Dr. Edward R. Mountain, 1909 West State St., Olean, 14760. Tel: 716/372-2788.

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SALAMANCA, N.Y., contact Miss B. J. Sommerville, Adm., Salamanca District Hospital, 150 Parkway Drive, Salamanca 14779.

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STATEN ISLAND, N.Y., contact F. J. Romano, M.D., Staten Island Family Physicians, 45 McClean Ave., Staten Island 10305. Tel: 212/447-2525.

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TICONDEROGA, N.Y., contact Edward A. Kroner, Moses-Ludington Hospital, Ticonderoga 12883. Call collect 518/585-6713.

TUPPER LAKE, N.Y., contact G. K. Norman, M.D., 5 Stetson Rd., Tupper Lake 12986.

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ROCKVILLE CENTRE, N.Y., Internist desires an associate. Contact Theodore Mandelbaum, M.D., 165 North Village Avenue, Rockville Centre 11570. Tel: 516/766-0355.

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AUBURN, N.Y., Position available in a Community Mental Health Center. Write or call Peter P. Midura, M.D., Director, 146 North St., Auburn 13021. Tel: 315/253-0341.

RADIOLOGIST

BROOKLYN, N.Y., contact Edward J. Arida, M.D., Director, Dept. of Radiology, Lutheran Medical Center, 150 55th Street, Brooklyn 11220. Tel: 212/630-7415.

BROOKLYN, N.Y., contact Anthony Camera, M.D., Acting Chairman, Department of Radiology, The Brooklyn Hospital, 121 DeKalb Avenue, Brooklyn 11201. Tel: 212/270-4230. Auburn 13021. Tel: 315/252-3388.

HICKSVILLE, N.Y., contact Mr. Harris, Box 22, E. Norwich 11732. Tel. 212/343-2802.

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HAMILTON, N.Y., needs a Director for Student Health Service. Contact Alan S. Glos, Assistant Dean of Students, Colgate University, Hamilton 13346. Tel: 315/824-1000.

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INFORMATION REGARDING OPENING FOR A PHYSICIAN
(General Practice or Specialist Associate)

Date________________

Name of Town____________________County_____________________State______________

Population______Population of area served by physician______________________________

What type of specialty?_________________________New opening?____________________
If this is a replacement, why did former physician leave?_____________________________

When will position be available?____

Please list special requirements: a) Residency training?______________________________
b) Board eligible?_____________Board certified?__________________Age?___________

Please describe type of practice: a) Solo?____b) Association?______Please describe the reason for associateship____
c) Group practice? Please give details, i.e., number in group, number in this specialty, when group was commenced____

Please show what type of financial agreement is acceptable: a) Straight salary?__________
b) Percentage basis?_______c) Will investment be necessary?___________________________
d) If partnership basis is acceptable, how soon would it be available?__________________
__________________e) Would written agreement be used?______________________________

Office space available? Yes_____No_____ If yes, describe briefly________________________

Living quarters available? Yes_____NO_____ If yes, describe briefly______________________

Is there a hospital in the town? Yes_____No_____ If yes, please describe, i.e., number of beds, type of ownership, how soon can physician obtain hospital privileges___________________

If no, please describe hospitals in nearby areas____

List any other features which you consider would make the position attractive to a prospective physician____

List person to be contacted by interested physician giving name, address and telephone number

When completed, kindly return to: Physicians' Placement Bureau, Medical Society of the State of New York, 420 Lakeville Road, Lake Success, N.Y. 11042. Telephone: (516) 488-6100.

QUESTIONNAIRE FOR PHYSICIANS SEEKING LOCATIONS
(Please print in black)

Name______________________________ Date__________

Address______________________________

____
(Zip code number) (Telephone Number)

Date of Birth__________ Place of Birth______________________________

Citizenship Status______________________________ Marital Status__________

Medical School______________________________ Year Graduated__________

Internship______________________________

Hospitals______________________________ Dates__________

Residency______________________________

Hospitals______________________________ Dates__________

Specialty______________________________

Licensed in what States?______________________________

Applied for______________________________

American Board Certificates held?______________________________

Eligible__________ Certified__________

Do you have a New York State License?__________ Date of Certificate__________

Military Status______________________________

Professional Organization Memberships______________________________

Are you in practice at present?__________ What type of practice are you interested in?

Solo_______ Associate_______ Industrial_______ Group_______ Institutional_______

Other______________________________

Date you will be available for practice__________ Former locations in which you have practiced______________________________
(Give dates)

____

When completed, please return to: Physicians' Placement Bureau, Medical Society of the State of New York, 420 Lakeville Road, Lake Success, N.Y. 11042. Tel. 516/ 488-6100.

NEW YORK STATE JOURNAL OF MEDICINE

MARCH 1981

Proceedings of the House of Delegates
Medical Society of the State of New York
174th Annual Meeting, September 28 to October 2, 1980
New York City

and

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MINUTES OF THE ANNUAL MEETING

Important

Your Next Meeting

The 175th Annual Meeting of the Medical Society of the State of New York will be held at the Grand Hyatt New York on . . .

October 11–14, 1981

●

New York State Journal of Medicine

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Medical Society of the State of New York

House of Delegates

Minutes of the Annual Meeting*

September 28 through October 2, 1980

The 174th Annual Meeting of the House of Delegates of the Medical Society of the State of New York was convened at the Grant Hyatt Hotel, Park Avenue at Grand Central, New York City, on Sunday, September 28, at 2:00 p.m.; on Tuesday, September 30, at 2:00 p.m.; on Wednesday, October 1, at 9:00 a.m.; and on Thursday, October 2, at 9:00 a.m.; Joseph F. Shanaphy, M.D., Speaker; Richard D. Eberle, M.D., Vice-Speaker; Victor J. Tofany, M.D., Secretary; Allison B. Landolt, M.D., Assistant Secretary.

OPENING PROCEEDINGS

INVOCATION AND NATIONAL ANTHEM

. . .Speaker Shanaphy introduced the Reverend William B. Smith, Professor of Moral Theology at St. Joseph's Seminary and Vice-Chancellor of the Archdiocese of New York, who gave the invocation. This was followed by the National Anthem. . .

REPORT OF THE REFERENCE COMMITTEE ON CREDENTIALS

. . .William A. Schwarz, M.D., Chairman of the Committee on Credentials, reported that 197 delegates were registered; Secretary Tofany reported that a quorum was present. Speaker Shanaphy then declared the 174th session of the House of Delegates open for transaction of business. . .

MEMORIAL TRIBUTE

. . .Speaker Shanaphy read the names of the deceased members of the House of Delegates as follows:

Albany County: ***Ralph Marean Vincent,*** section on preventive medicine and public health, delegate 1960; ***Irvine Edward Gage,*** county delegate 1948 and 1950.

Cortland County: ***John E. Wattenberg,*** county delegate 1943 to 1948.

Genesee County: ***David R. Harrington,*** eighth district branch delegate 1970, 1971, 1974, and 1975.

Livingston County: ***James Malcolm Judd,*** county delegate 1960, 1966 to 1968, 1970, and 1971.

Monroe County: ***Michael Jay Crino,*** county delegate 1958 to 1962; ***Joseph Peter Henry,*** county delegate 1940 to 1950; ***John Ralston Williams, Jr.,*** section on medicine 1961, section on internal medicine 1969 to 1977.

Montgomery County: ***Robert Cunningham Simpson,*** county delegate 1943 to 1947.

Nassau County: ***Harvey Lester Myers,*** county delegate 1961, 1962, and 1964.

Oneida County: ***Robert B. Beede,*** section on allergy, delegate 1968.

Orleans County: ***John Stover Roach,*** county delegate 1949 and 1953.

Queens County: ***Louis J. Morse,*** county delegate 1958 to 1962 and 1967 to 1968.

Westchester County: ***Edward Christopher Wood,*** county delegate 1939 and 1940, councilor of MSSNY 1941 to 1943 and 1947 to 1949, county delegate 1950 to 1958.

. . .The House rose and stood for a moment of silence. . .

---

* A verbatim copy of the proceedings of the House of Delegates is on file at the Headquarters Office of the Medical Society of the State of New York, 420 Lakeville Road, Lake Success, New York 11042.

. . .The following memorial resolution was presented to the House by Joseph A. Prezio, M.D., President of the Medical Society of the County of Erie. It was unanimously adopted by the House. . .

Resolution 80-49, John D. Naples, Sr., M.D.

Introduced by the Medical Society of the County of Erie

Whereas, John D. Naples, Sr., M.D., died Saturday, August 9, 1980, in Deaconess Hospital, Buffalo, New York, after a short illness; and

Whereas, He was a life member of the Medical Society of the County of Erie, the Medical Society of the State of New York, and the American Medical Association; and

Whereas, He was President of the Medical Society of the County of Erie in 1944, at the age of 39; and

Whereas, He was President of the Eighth District Branch of the Medical Society of the State of New York in 1964 and 1965; and

Whereas, He served as a Delegate to the Medical Society of the State of New York for thirteen years, and to the American Medical Association for five years; and

Whereas, Doctor Naples served his community in a number of civic offices and appointments; therefore be it

Resolved, That this House of Delegates of the Medical Society of the State of New York express its sorrow at the passing of this distinguished physician, citizen, father, and friend, John D. Naples, Sr., M.D.; and be it further

Resolved, That this resolution be a part of the proceedings of the House of Delegates, and that a copy be sent to his family.

INTRODUCTION OF NEW DELEGATES

. . .Speaker Shanaphy introduced the following new delegates who were applauded by the House:

County Delegates

Mario A. Argentieri, Steuben
Sheppard Arluck, Yates
Norman N. Burg, Ulster
John W. V. Cordice, Queens
Robert M. Farrell, Queens
E. James Fogel, Jr., Tompkins
Richard J. Freeman, Cayuga
Edmond J. Gicewicz, Erie
Milton M. Greenberg, Kings
Victor Guarneri, Queens
Hyman A. Hauptman, Kings
Robert G. Hicks, New York
William A. Kern, Jr., Monroe
Muhammad Akmal Khan, Allegany
Charles S. LaMonte, New York
Paul C. Lehmuller, Nassau
David R. Levine, Kings
Philip Marshall, Queens
Joyce M. McChesney, Monroe
Thomas A. McCormick, Ontario
Stanley M. Mendelowitz, Westchester
Joseph H. Mintzer, Saratoga
Zane A. Miranda, Putnam
Usha D. Mukhtyar, The Bronx
Thaddeus Naprawa, Wyoming
Jack D. O'Neil, Steuben
John A. Ostuni, Nassau
Lloyd C. Peters, Broome
Feori F. Pipito, Montgomery
Kenyon J. Plumpton, Jefferson
Bert W. Rappole, Chautauqua
Gerald P. Schneider, Chemung
Harold N. Schwinger, Kings
Charles R. Sinatra, Chautauqua
Nicholas W. VanLeeuwen, Clinton
Stanley M. Vickers, Suffolk
Donald S. Waldorf, Rockland
Seymour J. Wiener, Orange
William Winner, The Bronx

District Delegates

Duane M. Cady, Onondaga
James M. Flanagan, Wayne
John Simmons, Putnam

Section Delegates

Harold E. Berson, Kings
Max N. Howard, New York
Russell C. Johnson, Orange
Leon Littman, Kings
Lawrence Ravich, Nassau
Laurence George Roth, Genesee

Medical School Delegates

James Lee Curtis, Queens
Stanford Wessler, New York
R. Gordon Douglas, Jr., Monroe

Medical Student Delegates

Charles Joseph Cattano, Onondaga
Jeffrey Howard Dresner, New York

APPROVAL OF THE MINUTES OF THE 1979 MEETING

. . . The minutes of the September, 1979, session were approved as published in the February, 1980, issue (Volume 80, Number 3) of the New York State Journal of Medicine.

REFERENCE COMMITTEES

Credentials

William A. Schwarz, Richmond, *Chairman*
George W. Fugitt, Erie
Alfred L. George, Genesee
A. W. Martin Martino, Jr., Kings
Albert A. Mazzeo, Orange

Reports of Officers

President
President-Elect
Secretary
Treasurer
Board of Trustees
Budget and Finance
Executive Vice-President
New York Delegation to the AMA
District Branches
Standing Committee on District Branches
Physicians' Home

Research and Development
Resume of Instructions from the 1979 House of Delegates and Actions Thereon by the Council, Board of Trustees, Executive Committee, Officers, Council Committees, and Governmental Agencies

John T. Prior, Onondaga, *Chairman*
Samuel M. Gelfand, Nassau
Robert E. Gordon, Kings
William F. Mitty, Jr., New York
John F. Spring, Broome

Bylaws

Daniel F. O'Keeffe, Warren, *Chairman*
James M. Flanagan, Wayne
Allison B. Landolt, Westchester
George Lim, Oneida

Scientific Activities, Publications, and Miscellaneous

Administrative Committee for the MSSNY Pension Program
Awards and Prize Essays
Communications
Dinner
General Insurance
Library and Archives
Medical School Relationships
Membership
Membership Benefits
New York State Society, American Medical Assistants, Advisory to
Publications
Scientific Program
Student Membership

John L. Clowe, Schenectady, *Chairman*
William P. Clark, Westchester
Nicetas H. Kuo, Queens
Richard B. Nolan, New York
M. Theodore Tanenhaus, Kings

Public Health and Education

Accident and Injury Prevention
Aging and Nursing Homes
Alcoholism
Cancer
Cardiovascular Disease
Child Abuse
Drug Abuse
Emergency Health Services
Environmental Quality
Health Care in Correctional Institutions
Home Health Care and Hospice
Maternal and Child Health
Medical Aspects of Sports
Mental Health
Metabolic Diseases
Physical Medicine and Rehabilitation
Preventive Medicine
School Health

Continuing Medical Education
Forensic Medicine
Information Technology in Medicine

Nathaniel B. Messinger, Suffolk, *Chairman*
James H. Cosgriff, Jr., Erie
Elizabeth A. Goessel, New York
John A. Ramsdell, Westchester
Ralph E. Schlossman, Queens

Medical Services

Cost Containment
Health Manpower and Rural Medical Science
Health Systems Agency Coordinating Committee
Hospital and Professional Relations
IPA-HMO
Interspecialty
Medical Care Insurance
PSRO
Socioeconomics
Workers' Compensation and Occupational Health

Tamarath K. Yolles, Suffolk, *Chairman*
Duane M. Cady, Onondaga
Dattatraya G. Lanjewar, The Bronx
Richard N. Pierson, Jr., New York
Charles R. Salamone, Monroe

Governmental Affairs and Legal Matters

Committee to Evaluate the Services of our Legislative Consultants (Lobbyists) in Albany
Ethics
Judicial Council
Federal Legislation
State Legislation
New York State Association of the Professions
Professional Medical Liability Insurance and Defense Board
  Countersuits Subcommittee of the Professional Medical Liability Insurance and Defense Board
  Subcommittee on Legal Affairs
  Ad Hoc Committee to Meet with Administrative Judges of New York State
  Ad Hoc Committee on Mark A. Siegel's Bill for a Consumer Oriented Physicians' Directory

Seymour R. Stall, Dutchess, *Chairman*
John P. Albanese, The Bronx
B. Basil Hyman, Richmond
Joyce M. McChesney, Monroe
* Chak P. Tom

Tellers

William C. Stein, Niagara, *Chairman*
Thomas J. Doyle, Queens
Bentley D. Merrim, Kings
John R. Scott, Tioga

Sergeant at Arms

Nicholas P. Teresi, Albany, *Chairman*
Stephen R. Chernay, Dutchess
Irwin J. Cohen, New York
Richard L. Petrillo, Westchester
Stanley A. Steckler, Suffolk

REFERRAL OF REPORTS, SUPPLEMENTARY REPORTS, AND RESOLUTIONS

. . .On motion of Secretary Tofany, the annual and supplementary reports of Officers, the Board of Trustees, the New York Delegation to the American Medical Association, District Branches, Council committees, Standing Committees, and special committees and resolutions that have been printed and distributed to the members of the House were referred to the appropriate reference committees without reading.

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* Medical Student Membership Delegate.

ADDRESSES TO THE HOUSE

*PRESIDENT-ELECT**

. . .Speaker Shanaphy recognized Ralph M. Schwartz, M.D., President-Elect, who addressed the House as follows:

Mr. Speaker, members of the House of Delegates, distinguished guests, ladies and gentlemen — greetings.

In this first year of the new decade, when tradition calls for a census to be taken of our people and our resources, I think it is incumbent on us to conduct a census of our own — a census of some of the issues faced by medicine in the State of New York as we go into the '80s. And I use the word "census" not in the common sense of taking a count of our population, but rather, as the dictionary also defines it, of an evaluation, an appraisal, of what it all signifies.

That the figures for health care in New York State are astronomical comes as no surprise, and we need not go into them here. What must concern us more, however, is something less tangible, but more pervasive as we examine the many changes that have taken place in our society and in the practice of medicine during the last twenty or thirty years. And what these changes portend for the future must be our primary concern in this decade of the '80s.

It is precisely this that occupied the major attention of the AMA at its last convention in July. And what emerged, if I can put it in a phrase, is a substantive recognition of a marked change in constituencies — both of the medical profession itself as well as other health care entities, and of the public and community we serve.

We all recognize we are no longer simply individual physicians in private, one-to-one relationships with our patients, as was the case through the ages. In New York State, whether we like it or not, we are now members of a large, complex 15-billion dollar health care industry that has grown into the primary industrial employer in the State with more than 500,000 doctors, nurses, aides, administrators, and other workers — plus an additional 75,000 employees in State government agencies specifically responsible for administering the State's health programs.

I think we can draw some inferences as we look at these figures and at the composition of the present health care community. One thing is clear: It is more fragmented than ever before — and a number of factors have contributed to this condition. The unprecedented advances in scientific knowledge in recent years have created a proliferation of specialties and an expansion in both interrelationships and divisiveness among all kinds of physicians and related professionals.

In addition, economic, social, and political forces have created new systems of health care that have affected all of us in the way we now conduct and administer our practices. This has resulted in an intensification of rivalries among various groups engaged in health care, with persistent demands from a growing variety of special interest groups, both public and professional, seeking favorable benefits for their constituents. They act frequently at crosspurposes and not always in the interest of quality care for the public. With it all, there has been a gargantuan increase in intervention and regulation by bureaucracies at all the levels of government.

In a real sense, the regulation of health care has become a reflection of a tug-of-war among competing interests pulling in different directions — health associations of various kinds, organizations of narrow professional interest striving for more recognition, consumer groups, third-party payers, even government agencies — each struggling for influence and advancement of its own benefits without prime concern for the health care system itself.

Even in our own profession, a new and significant phenomenon has taken shape: Almost two of every three practicing physicians in this country are now in a salaried situation, as was pointed out by Jim Sammons at a leadership conference of the AMA early this year. That is not so startling a figure when you add up the incorporated practitioners, the hospital MDs, the nation's 60,000 residents, the group-practice MDs, and those employed by HMOs, institutions of various kinds, small partnerships, and others.

What all this adds up to, in this era of change, is that we as physicians are now confronted with both a new and vast challenge — and an opportunity — that we cannot ignore — and that is to unite our own constituency and to reassert and restore the leadership role that medicine always has exercised in the effective delivery of quality health care to the public.

It is more than a challenge. In reality it is an obligation — and an opportunity — for each of us as individual practitioners and for organized medicine in its collective strength.

To reestablish the leadership role the public heretofore expected us to fill, we must reach out more than we have ever done before, to all of the segments that constitute total health care. We must do this in a concerted and joint effort so as to achieve cooperation and unification of thought and purpose.

I am not so naive as to think this will be an easy task to perform. Nor am I unmindful of the commendable strides our State Medical Society already has taken in that direction. But if there is any single major mission to which we must devote ourselves in this new decade, it is to reach out — continuously and vigorously — in unabated intercommunication — in a spirit of cooperative enterprise, when possible, and with unrelenting pressure, when necessary.

The constituency with which we must deal is multi-faceted, and we must approach it on all fronts — the thousands of physicians in this State who are not affiliated with organized medicine, the various organizations involved in health care, the State legislature, the administration in Albany, regulatory agencies, third-party payers, private industry, unions, consumer groups, the mass media, our patients, and the general public at large.

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* Dr. Schwartz addressed the House on Thursday morning during the Annual Meeting of the Medical Society of the State of New York.

It is obvious that each segment requires a different approach. I think also that with concerted effort we in organized medicine have the wisdom and the fortitude to achieve progress towards the attainment of our objective. But it also requires unity if our effort is to have the strength it requires. And the first unity I look to is that of all the physicians in this State. What is at stake is our common interest — our own future — and that of the public we serve.

Half the registered physicians in this State do not belong to their county medical societies. They are probably a part of the new and diverse medical constituency. They may be salaried employees or in private practice, specialists or generalists; they may have any number of special interests or a range of particular identities. But if there is any single common denominator or unifying organization that can speak and act for all of the physicians in this State, regardless of their individual interests, it is the Medical Society of the State of New York. It is in fact the only organization in this State whose concerns, efforts, and achievements have a direct bearing on the problems that affect all of the 50,000 licensed physicians in the State and on the way they practice their profession, whether or not they belong to organized medicine.

This is the message we must bring to our unaffiliated colleagues, and we must do it vigorously and comprehensively. More than ever before, we must go to them to bring them in, to make them see that they need us as much as we need them, if we are to have the unity and impact that our common purpose requires.

This is a message that can best be conveyed by each one of us, as a member of organized medicine, on a one-to-one basis and through our county societies, by reaching out to every nonmember in their areas and having them join with us in close collaboration — to help solve some of the problems we face, to infuse a spirit of cooperative enterprise among all the groups involved in the State's health care system, and to reaffirm the leadership of the medical profession in the best interests of that system — and most of all, the people of New York.

This will be our task, not just for this year, but on a continuing basis, year after year into this decade of the '80s.

I thank you for the honor you have bestowed on me. I pledge my dedication to the responsibility it calls for, and I look to you for your help and support.

. . .The House rose and applauded as Dr. Schwartz left the podium. . .

*IMMEDIATE PAST PRESIDENT OF THE AMERICAN MEDICAL ASSOCIATION**

. . .Speaker Shanaphy introduced Hoyt D. Gardner, M.D., Immediate Past President of the American Medical Association, who addressed the House as follows:

Mr. Speaker, President Denton, President-Elect Schwartz, Dr. Dorman, distinguished colleagues at the rostrum, Dr. Fineberg, members of the House of Delegates, friends and colleagues. It is a great pleasure to be here with you, and bring you greetings from your association, the American Medical Association, and also bring you greetings from Kentucky, my home state.

I will tell you a bit more about the AMA, in a moment. Perhaps, some of you are obscure in thought about Kentucky. It is a very important state to you, because from Kentucky come the three basic essentials of life, and if you are uncertain as to what those are, let me tell you. It is whiskey, tobacco, and race horses. We found these commodities extraordinarily important for us, of course, for from them comes practically all the money that we have, which we, in turn, spend on women and politics, and, needless to say, that explains our state of perpetual poverty.

I am particularly pleased to be here, to bring accolades to your Executive Vice-President, Henry Fineberg, a great medical citizen — one that I have been aware of ever since my days in organized medicine. A brilliant star in an outstanding galaxy of leadership. He exemplifies the approach that should be taken, and can be taken, by all of us. So, it is my particular pleasure to be here on the occasion when you honor him.

Let's talk about the AMA for a moment — your organization. We are living in an extraordinarily sensitive world. Never before has there been such a battle for the human mind. Never before has there been a world in such close communication. Never before has there been a multitude of people striving for positions of leadership. Never before have the economics of our earth been so universally involved around the globe. And never before have the people of this world been so closely united, so that trivial and extraordinary events are brought, almost instantly, to our attention through the media. I will call to your attention, revolting though it may have been, the head count that we used to get every morning for breakfast from the holocaust of Vietnam. In the face of all this, medicine, particularly in this country, has achieved great heights which never before have been exemplified or been seen by healing hands. The story is a magnificent one, and one that has not been told very often, and particularly, not told by the profession. It seems appropriate in the great State of New York before these assembled delegates and healers; those who have, throughout the history of the AMA, brought great leadership to it, that we should visit together a few moments, about our profession and about your organization.

Think for a moment, statistically, where we are today. Four hundred and twenty-five thousand physicians in this country — an all time record. Over seven thousand, almost eight thousand hospitals in our land which together have over three million two hundred and fifty thousand direct employees, and four times as many are indirectly employed. Last year thirty-four million people were admitted to those halls of healing, nineteen million operations were performed, three million people visit our offices daily, and nine million prescriptions are being written daily. There are a hundred and twenty-four medical schools in our country –– again, an all time record. There will be a hundred and twenty-six in 1983. Eighteen thousand young men and women graduated last year, and twenty-five percent of the enrollees today are female — again, an all time record for our country. A total of sixty-four thousand young men and women are enrolled in our medical schools today — again, an all time record. And, taking it one step further, in post graduate years, there are forty thousand young men and women bettering themselves, reaching for excellence, trying to achieve, trying to accomplish, trying to extend the healing hand — all of these are all time records.

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* Dr. Gardner addressed the House at the Sunday afternoon session.

Let's look again at the statistics relating to our profession. Last year, unbelievably two million pieces of correspondence were written by our profession, in this country alone; articles, booklets, and journals. All were distributed to expand our ability to heal and to care for human beings. Two hundred thousand research projects are going on in our country today — again, expansion; again, excellence; again, reaching out; — again, an all time record. Last year from all this, and this is again an astounding figure, five thousand new drugs, appliances, and techniques, and a thousand new described surgical procedures, all in one year, all within our profession, all reaching again for accomplishment of healing; a great untold positive story about our profession. All this is accomplished by human motivation and commitment. No one says they have to do it. Nobody drives them to it. It is all done by the motivation of the individual physician, to better himself, better the profession, to better healing, and to expand it; an extraordinary story of medical care, and of the healers that provide it.

Let's look at it another way. Last year in our country this resulted in an expenditure of two hundred billion dollars of our gross national product, which makes medicine the second largest industry in our country; first behind agriculture, and ahead of construction.

Let's look then for a moment at your organization — the American Medical Association. There are twenty-three hundred organized facets — from country and state associations to specialty societies under the broad umbrella and canopy of organized medicine. Two hundred and eighty three other organized medical associations are not part of the organization. If you can believe it, there are twenty-six hundred facets, organized together — again, voluntarily, ... again, to expand healing . . . . again, to commingle, and to exist to help to exchange ideas, to broaden, and to expand our position.

Let's look again specifically at your association. Look at it structurally. As you know, it is headquartered in Chicago, on 535 North Dearborn Street. It is a hundred and forty years old and has a hundred and seventy-five thousand dues paying members. It has a total membership of two hundred and twenty-five thousand — approximately half of the profession. It is presided over by the House of Delegates, which is exemplified here by your House. The delegates are elected democratically at the county, state, or specialty society level. Last year two hundred and seventy-eight delegates were seated — an all time record. And, by the way, that House of Delegates determines the policy of the American Medical Association. There is no policy until it has been passed by a majority vote of that House, which meets twice a year. The custodian of policy, when it is accepted by the House and found to be appropriate, is the Board of Trustees, which has twelve members, elected at large, by that same House of Delegates, and the president-elect, the president, and immediate past president. There are nine hundred and fifty employees under the direct administration of Jim Sammons, the Executive Vice President. Our gross annual budget this year was sixty-eight million dollars.

Let's talk about that budget because it is an extraordinary story for your association, for medicine, and for healing. Eighty-five percent of it is spent on efforts to improve people's health, or to enhance medicine — eighty-five percent for quality health care. Let's talk about it even further. Sixty-one percent of it is spent on pure science alone. The American Medical Association is the largest publisher of medical and scientific material in the world — twenty-six major publications, a weekly newspaper, and JAMA. JAMA last year was published in five foreign languages, in addition to our own. Thirty eight million copies are circulated — an all time record. There has never been a journal in the history of the world which equaled the productivity, the effort to expand, and the healing capacity of this medical publication. Again, your association has made it possible for this Journal to expand. China is now asking for it. Think of the opportunity—suddenly one billion people will be exposed to modern medical literature and the efforts of healing — a step for humanity — an extension of organized medicine. One billion people will benefit from your association's efforts and through its publications.

The Medical Library of the American Medical Association is the second largest in the world. The first largest is at the Armed Forces Institute. Every licensed physician in this country is known to the AMA. We are the only association which has that information. Along that line, the computer capacity of the AMA is equivalent to that of H.H.S. There are fifty-seven specialty associations in our country. When I graduated from medical school in 1950, there were twenty-two. I recall at that time the dean, deans tend to be ponderous, said: "Ladies and gentlemen, today I must tell you that this is a beginning, not an end. The knowledge that you now have in your reservoir is just a start. And if you do not continue to maintain yourself and keep up, within ten years you will be outdated." When finishing my surgical residency in 1957, I recall the chief of surgery, and they are the only people who are more ponderous than deans, saying: "Ladies and gentlemen, this is just a beginning. And if you do not keep up, in five years you will be outmoded." So, we must continue to enhance ourselves. It is just a beginning, not an end. Reflecting back over today's statistics, two million publications in a year, two hundred thousand research projects, five thousand new drugs and appliances, a thousand new surgical techniques, were all miscarriages. How in the world can you keep up? But, what a positive story for medicine, for healing, for your association, for you — a story almost entirely untold, and particularly by us, particularly by us. Take five extra seconds today to tell each patient: "Did you know about the new technique? Did you know about the new drug? Did you know about the new service? Did you know about these new achievements?" Five seconds at no cost. Think of the public relations opportunity. Think of changing the public's attitude in just those few five seconds by extolling the virtues of an historical accomplishment never before witnessed in health care.

I said earlier that the AMA is your association, and it is.

Whether you are a member or not, you receive the same benefits. Whether you align yourself with it or not, you reap the same rewards. And you say: "Well, why? I am disinterested. I don't care. I don't agree with this or that." It makes no difference. It is still your association, and I will tell you why. It birthed you. It continues your professionalism throughout your entire existence, whether you practice medicine or not. And when you die, for eternity, it will rest with you. You are doctor so and so. Why? Because you are so certified by the American Medical Association. It gives you birth. It gives you life. It gives you continuity for eternity. That is a pretty cheap price to pay, whatever the dues are. And why did I say that? Because it gives you your professionalism, your identity, your public acceptance, your licensure, because the American Medical Association, either singly or jointly, accredits all the medical schools in the country, all the hospitals in the country, all the ancillary health care facilities in the country, and all the ambulatory health care facilities in the country. And think about this; they also do it for Canada — a fact, again, that is not very commonly known. It gives you your credibility. To put it another way; if they didn't do it, it would have to be done. Who would do it? Who would you ask to do it, other than professional people, healers, doctors? Who would you want to do it? So, it is your professionalism, your existence, your acceptance, your association.

Let me touch, for just a moment, on two areas of controversy; not as prevalent today, but they have been in the past. They should be looked at openly: Legislation and Politics. I have heard it said, forever, what the great indoor sport is, and they are wrong. The great indoor sport is the discussion of politics. How many times have you heard physicians say in the locker room "It demeans the profession. We shouldn't participate. Politics are ridiculous." And turn right around and say: "Who are you voting for on the school board, for the county sheriff, for the governor, for the presidency?" Everyday everyone talks about it. The universal conversation outside of weather is politics. Everyone is deeply interested. It is the grasping, the reaching for power. It is the ability to collectively live together. Why shouldn't we? Therefore, with the accomplishments of the healing hands that we have already talked about, why should we not be deeply involved in the pursuit of the battle for the human mind? Let's talk about what your association does along those lines. Yes, we do have a Washington Office. Yes, it has thirty employees. And yes, six of them are lobbyists. Lobbyists to bring this positive story before the Federal Congress. Yes, we did have a budget last year of a million dollars. Let us look at the Federal Congress for a moment, to show you the pertinency of that approach. We don't know what is going to happen to the ninety-sixth Congress. It is ebbing. But, we have analyzed what happened to the ninety-fifth Congress. It is history. It is all there. It is in indelible print. Let's look at it for a moment. Ten thousand bills came before that ninety-fifth Congress — an ordinary Congress in the number of things it has to consider. But, think of it, four hundred and thirty-six representatives, and a hundred senators have to look at ten thousand pieces of legislation in two years time. Think about the obligation they have. They have to have information, and they have to reach out. It cannot be accumulated by five hundred and thirty-six people in two years time. Twenty-five hundred of them, or one fourth of the total considerations, had direct medical connotations. It would be abandonment of citizenship, if your association — the American Medical Association — did not add to the dialogue, and to the purpose, intent, and the finalities of those which are passed. It would be abandonment of the profession of healing, of achievement, and of science. The AMA has a proud record because in that Congress they testified on over seven hundred of the most significant ones. Here is a very positive story, again, infrequently understood and never talked about. Ninety percent of the time it was positive, ninety percent of the testimony of the American Medical Association before the Federal Congress is positive — yes, we do believe; yes, we should subscribe to capitation for medical students; yes, the armed forces should be supported by augmented salaries; yes, the Veterans Administration does need these bricks and mortars; yes, these prophylactics in health care for the migrant worker should be supported; yes, we do believe that the state should be given these kinds of funds for particular and local projects; yes, yes, yes, yes. And, by the way, on analysis, the only association that came even close to ninety percent positive was only fifty percent positive. So, when you talk about the legislative responsibility of the American Medical Association, it is extraordinarily positive, more than anyone else.

Yes, healing hands should be extended. We hear too often about the negativism of the American Medical Association, when it comes to legislation and politics. Let's talk about why that happens. It is over a single issue, national health insurance. Now, the next time that happens, I propose you say to the discussants, the debaters, the gladiators: "Let us not discuss national health insurance at all." Talk about every other facet but not national health insurance. Ask them: "What do you think about organized medicine and the American Medical Association?" It is always fascinating that very few of them know anything about the subject. It is a great opportunity for education. And after that has disappeared into the firmament, say: "All right, let us now talk about national health insurance. I submit to you that if you can say yes to any one of the bills that have been submitted before the Federal Congress, I will join your side. Contrarily, if you say no to any one of the proposals of the American Medical Association, you join mine." Now, that is a fair proposition. Let's talk about it for a moment. For eight years the American Medical Association had a positive Bill on national health insurance before the Federal Congress. It had more subscribers than all of the rest of them put together, which means something. Let's talk about it in terms of all the other proposals, getting on with the dialogue that you are now exchanging with the other person, "Will your proposal bring less regimentation; will it create more access; will there be less bureaucracy; will there be better management; will it be more personal; will there be less cost; will there be less politics; will there be more personal motivation; will there be more individual compassion; will there be more confidentiality?" And if they can say yes to any one of those things, say: "Where is the example?" And there is none, there is none. But, turn to the American Medical Association's Bill. We have talked about less regimentation. We have talked all the time about creating more access. We talk all the time about less bureaucracy. We always talk about better management. We talk about more personal responsibility, more personal opportunity for the physician and the patient, less cost, of course, is a prime commitment, and less politics, above all; and, by the way, more motivation to continue what we have already been doing, more individual compassion for the patient, more confidentiality. And the example is always our Bill. A very positive story, from our position.

Let's talk for just a moment about the future. That is where all the responsibility for all that has gone before rests. We are only a continuity, only a step on the ladder. The future is the greatest challenge that has ever confronted us as a profession, our people as individuals, our country as a country, or our world as a world. Most of it has again been brought about by the healing hands. Again, I am talking about professionalism. The things that set us apart: education, responsibility, ethics and conscience, make us different from the skilled laborer or the ditch digger. Let's talk about where we are going, because we are now confronted with extraordinary forebodence of the future. Think about amniocentesis, cloning, test tubing, genetic maneuvering. You say; "Ah cloning, what is that — tadpoles." Colleagues, you know as well as I do when you are talking about tadpoles today, what the excellence of our researchers can do. You are talking about five hundred pound frogs tomorrow. It is here. Face it, it is here. We are living in a close knit world with instantaneous communication and a burgeoning population around the globe. What should we do? Our profession has been deeply involved in the dialogue for two decades. Think for a moment of the extraordinary circumstances of the Karen Quinlan case. In a rapidly shrinking world, with finite resources, priorities must be established. There must be choosing, there must be some sublimation to the achievements of others. Think about the clash of committed people on the issue of abortions on a philosophical, educational, emotional, and religious level. What is the answer? How does a committed world decide what the priorities are?

Which brings me again, back to your association. The AMA, through the World Medical Association, maintains on-going relationships with the hundred and forty-one other countries around this globe, it meets twice a year. All of the countries say: "You are the prototype. You are the exception. You are what we would like to be. You are the organization that exemplifies what medical organizations should be — scientifically, organizationally, healing-wise." In this world of torment and decision-making, prioritizing, cloning, test tubing, amniocentesis, there has to be a professional spokesman. Throughout history, when civilization has had to decide, it has always turned to the four original learned professions for guidance — medicine, law, religion, and education. And they are all in this debate today. There has to be a voice for medicine. And there is no more suitable voice for medicine, not only in this country, but throughout the world, than your association — the American Medical Association. It has to have strength, has to have that democracy of the House of Delegates to make the policy decisions. We owe that responsibility to the future. Whether you actively participate or not, you owe at least this much to your professionalism, to your birthing, to your living, to your eternity. You owe the responsibility of a medical voice to allow the opportunity of expression in a rapidly shrinking world with finite resources. I submit to you, what an opportunity, what a challenge, and what a privilege, what a profession, what an organization — your American Medical Association.

Thank you.

. . .The House rose and applauded as Dr. Gardner left the podium. . .

*SCIENTIFIC MEETING**

. . .Speaker Shanaphy introduced George J. Lawrence, Jr., M.D., Director, Division of Scientific Activities of the Medical Society of the State of New York, who addressed the House as follows:

Mr. Speaker, members of the house of delegates, guests, ladies and gentlemen. My function at this moment, is to announce to you that the Second Annual Continuing Medical Education Assembly of the Medical Society of the State of New York is to be held in June of next year, in Niagara Falls, New York, June 26, 27, and 28. Those of you who attended the first annual CME Assembly at Rye, New York, in April of this year, experienced the type of program that our Scientific Program Committee can develop. Now that the House of Delegates and the Spring Scientific Assembly have been separated in both time and place, the members of the House have the opportunity to attend these educational sessions, which have never been easy for you to attend in previous years, when we met jointly. It is to the advantage of the members of the House, and I urge all of you to try to attend the meeting. The Scientific Program Committee, under the chairmanship of Dr. Stephen Nordlicht has already prepared an outstanding program, which should appeal to any physician, no matter his type of practice, or his specialty. In order to whet your appetites, we have prepared, with the kind help and assistance of the Convention Bureau of Niagara Falls,

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* Dr. Lawrence addressed The House at the Sunday afternoon session.

New York, a presentation for you this afternoon, which will show you some of the excellent, wonderful, and attractive features of Niagara Falls, for you to mix in with your educational program.

. . .The film by the Niagara Convention Bureau was presented to the House. Speaker Shanaphy invited all members of the House to attend the Spring Scientific Assembly in Niagara Falls on June 26, 27, and 28, 1981.

. . .The House applauded as Dr. Lawrence left the podium. . .

PRESIDENT OF THE AUXILIARY TO THE MEDICAL SOCIETY OF THE STATE OF NEW YORK*

. . .Speaker Shanaphy recognized Mrs. Phillip Ikins, President of the Auxiliary to the Medical Society of the State of New York, who addressed the House as follows:

Mr. Speaker, honored members of the house of delegates, ladies and gentlemen. It is my pleasure to have this opportunity to report to you the activities of your Auxiliary this year. I would like to begin with a quote by Ellen Sturgis Hooper, "*I slept and dreamed that life was beauty. I woke- and found that life was duty.*" It is, however, the good fortune of you who practice medicine to have the dream of beauty and the reality of duty intertwined. Duty, self-fulfillment, and the betterment of life are all integral parts of the daily experiences we share as doctors and wives of doctors.

In my years of Auxiliary work, I have been impressed by the selfless, dedicated contributions made by our members in spheres of help where their leadership was needed. These women by their fortuitous relationship to physicians felt a duty to use their talents in programs for the advancement of medicine and the improvement of the quality of life.

The first duty of every member of the Auxiliary is to become well informed, to have opinions, to reach decisions, and to participate. To this end, we attend national meetings, and in turn, conducted forums, conferences, and workshops within our State. The program of our Spring Conference was an outstanding one, featuring seven speakers, whose topics ranged from leadership training to physical fitness, to health legislation.

Legislative awareness remains one of our top priorities, and so we traveled to Albany to hear Governor Carey relate his plans for health care, vis-a-vis the cutback in the budget. We attended your legislation day to hear the Legislative Program, whose passage was actively being pursued by the State Medical Society, and met with our legislators that afternoon. Senator Joseph Pisani and Assemblyman James Tallon, Jr., Chairman of the Assembly Committee on Health, spoke at our conference in April and responded to our questions on health care issues. Two weeks ago, our president-elect and I were invited to attend your State Legislation Committee meeting to learn of your plans and priorities for the coming year. You may be assured that, with your guidance, our members will work to help you achieve your 1981 objectives.

Our involvement in the continuation of quality medical education inspired us to raise over $40,000 for AMA-ERF. In addition, over $70,000 in scholarships and loans was awarded to students enrolling in health career training courses. Our contributions to the Physicians' Home this year, from twenty-three county auxiliaries, and our Gavel Club, totaled $6,453. This was an obligation we gladly assumed, to help the eighty-four members of the medical families who needed financial assistance this year. "*No man is an island entire of itself,*" wrote John Donne in his *Devotions;* and we need not be.

Excellent material is available from the AMA Auxiliary. We have implemented their nationwide campaign, "*Shape Up For Life,*" into many of our programs. The campaign stresses that proper diet and exercise are vital to good health and fitness. It is the Auxiliary's contribution to the health care industry's voluntary effort for cost containment. 300,000 nutrition brochures were distributed throughout the country last year. This year's thrust is for physical fitness, and we are distributing brochures, as well as using the "*Shape Up for Life*" logo on our own mail enclosure. This enclosure, to be distributed tomorrow at our House of Delegates meeting, is our third for the year. They will be taken back to the counties and circulated to the public. A more active side of our role in positive health education is the 150 health related projects our county auxiliaries conduct or participate in. We estimate that our educational programs this year reached 20,000 school children. We have designed programs for teenagers on alcoholism, depression, and drug abuse. For our age group the program was "*Stress in the Middle Years;*" and for the age we shall all become; "*Coping As a Senior Citizen.*"

This has been an exciting year. As we come to its close, I would like to take this opportunity to thank Dr. Denton, Dr. Fineberg, the officers, councilors, and the staff of the State Medical Society. I thank them for the many privileges and kindnesses they have extended to me and to the Auxiliary. I would also like to thank my own county medical society, Onondaga, and especially my travel companion to the Council meetings this year, Dr. Richard Eberle.

Each year it is the president's privilege to choose a theme for the Auxiliary. My theme is from that same sermon by John Donne, "*Involved in Mankind.*" To me, it represents our common goal. Let us all, always, remain involved in mankind. Thank you.

. . .The House applauded as Mrs. Ikins left the podium. . .

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* Mrs. Ikins addressed the House at the Sunday afternoon session.

*PHYSICIANS' HOME**

. . .Speaker Shanaphy recognized Perrin B. Snyder, M.D., President of the Physicians' Home, who addressed the House as follows:

Mr. Speaker, Mr. President, members of the House and guests. The annual report of the Physicians' Home will be published with the proceedings of House of Delegates (see page 528). Additional historical or financial information is available on request.

Rather than repeat to you excerpts from the annual report, I would like to emphasize what seemed to me the important facts about the Physicians' Home and present to you what I consider to be a unique opportunity to help our elderly associates. As you know, the Physicians' Home is a tax exempt corporation, and donations to it are tax deductible. For sixty years the Physicians' Home has supplemented the income of elderly, needy physicians, including their widows and dependent children; particularly doctors who have been members of the Medical Society of the State of New York.

One important source of income of the Physicians' Home is from members of the Physicians' Home; defined as any person who contributes $25 per year. Other sources include voluntary assessment from the yearly bill of the Medical Society of the State of New York, and voluntary contributions from many of the auxiliaries of the counties. I would like to mention that the Auxiliary of the County of Queens, led by Mrs. Secky, is an outstanding example of what a county auxiliary can accomplish.

At present we have eighty guests. On the basis of the past ten months of our fiscal year, these guests will receive about $180,000 this year. In the past ten years total aid to guests has been more than $1,600,000. The following are typical of recent comments from five of our guests: "Again, I wish to thank the Physicians' Home for the monthly check just received. How can I express in adequate words how grateful I am. It is people like you who have the compassion to understand our circumstances, and for that I am ever grateful." Another letter: "I find no words to express my profound appreciation for the kindness of the Physicians' Home in extending their charity to their guests, of which I have been an expensive recipient. Kindly convey my heartfelt gratitude to your Board of Directors. May you and all your beloved dispensers of charity enjoy the happiness of doing so much good in a sorely tried world. A most happy Christmas will surely be endowed upon all of your noble friends, for this I pray." Another letter: "Let me express to you my own gratitude, and that of my wife, for the many years which you have made decent, tolerable living possible for us, and which would not have been otherwise possible, except for the contributions made to us by the Physicians' Home. If every time your assistance is as timely and as beneficial as those made to us, it will be a great satisfaction to those of you who are running this worthy program." Another letter: "The relief the check from the Physicians' Home each month has brought into my life, I will never be able to put into words. God bless each and every one of you," and the last one: "Will you please thank the Board of Directors of the Physicians' Home for the increase in my monthly stipend. It could not have been a nicer or a more welcome Christmas gift. With the help of the Physicians' Home, I have succeeded in bringing up my sons — sons that I am proud of, and I have a home they can come home to. God bless all of you."

The unique appeal of your financial support lies in the following facts: (1) to help giving, as in cash; (2) the assistance permits these guests to remain in their own homes; (3) there is complete privacy during the investigation of applicants, and thereafter; (4) in contrast to fixed income sources, such as annuities or pensions, the Physicians' Home has, to date, been able to increase yearly the monthly check to each guest. In short, I believe there is no way your direct financial support can better provide urgently needed assistance to our own physician associates than by increasing your contribution to the Physicians' Home. Your assistance is also needed to help the Physicians' Home find new guests. Please remember that this is a Statewide quest. Thank you very much.

. . .The House applauded as Dr. Snyder left the podium. . .

*PRESIDENT OF THE AMERICAN ASSOCIATION OF MEDICAL ASSISTANTS, NEW YORK STATE SOCIETY**

. . .Speaker Shanaphy recognized Ms. Joyce Maier, R.N., President of the American Association of Medical Assistants, New York State Society, who addressed the House as follows:

Speaker Shanaphy, President Denton, officers, delegates, members and guests. It is a privilege and an honor to have the opportunity to address your House of Delegates. On behalf of the American Association of Medical Assistants, New York State Society, greetings and best wishes are extended for a successful meeting.

The American Association of Medical Assistants, a national nonprofit organization, is dedicated to the professional advancement of medical assistants. It has received the commendation, support, and sanction of the American Medical Association ever since its founding in 1956. During these twenty-four years, AAMA has proved itself responsive to the needs of its members, and has evolved the vision, prestige, and leadership necessary to project and support the aims and goals on which it was founded. Medical assistants have accepted the challenge of the health care revolution, which has evolved during the past decade. As a result, medical assistants has emerged as a profession with its own code of ethics and body of knowledge, which requires specific educational preparation.

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* Dr. Snyder addressed the House at the Sunday afternoon session.

* Ms. Maier addressed the House at the Sunday afternoon session.

The three educational arms of AAMA; the certifying, continuing education, and curriculum review boards provide the educational services that enable members to increase their effectiveness to the physician and the patients they serve, and to advance professionally. The Certifying Board, in collaboration with the National Board of Medical Examiners, administers written examinations designed to test the competency of medical assistants. The first certification examination was offered in 1963, and today there are over twelve thousand CMAs. Beginning this year, revalidation will afford the opportunity to demonstrate proof of continued competency. Revalidation upholds the professional standards certified medical assistants have set for themselves. The Continuing Education Board administers a complete program of continued education, and a system whereby medical assistants may document their educational experiences, awarding continuing education units, or CEUs, which are similar to your CMEs. While certification, documentation, and revalidation are not mandatory, medical assistants voluntarily credential themselves, realizing that it is becoming increasingly important to hold credentials and, that, with a voluntary system they will be less likely to have some form of licensure forced upon them. The Curriculum Review Board collaborates with the AMA in the surveying of post secondary programs, for possible accreditation by the Committee on Allied Health, Education, and Accreditation, and continually reviews these programs for minimum curriculum standards.

As a medical practitioner you are aware of the rewards that come from attending medical society meetings and advanced educational courses. Your medical assistant can gain the same rewards. Professional stimulation off the job will give her new knowledge, fresh approaches to office expertise, and, more importantly, a real sense of value as a professional. We urge you to encourage your medical assistant to join AAMA and to take advantage of the educational opportunities available. The more motivated your medical assistant, the better job will be done for you and your patients.

In closing, we wish to acknowledge our advisors, who have given unselfishly of their time and talents to make ours a better organization. These advisors are: Anthony Fragola, M.D., Chairman, of West Islip; Carl Sansocie, M.D., of Rochester; and Charles Poskanzer, M.D., of Albany. We express our gratitude to the State Medical Society staff for the many privileges and kindnesses afforded our Society. Just as the rapport with the Medical Society has grown and prospered, so will our Society with your continued support and encouragement.

. . .The House applauded as Ms. Maier left the podium. . .

NEW YORK MEDICAL POLITICAL ACTION COMMITTEE (NYMPAC) *

. . .Speaker Shanaphy recognized John H. Carter, M.D., Chairman of the New York State Medical Political Action Committee, who addressed the House as follows:

Mr. Speaker, ladies and gentlemen, members of the House. It's a pleasure for me to come here and report to you about NYMPAC, the State PAC. As you will remember some three years ago, this House of Delegates mandated that we should set up a State PAC as well as EMPAC, the Empire Medical Political Action Committee for Federal elections. Each year with your dues notices there is a request for a voluntary contribution of $100 for political action. $65 of that $100 goes to NYMPAC, the State Legislative Program, $35 goes to EMPAC.

Half of the NYMPAC money is allotted to counties to disburse as they see fit. The other half is allotted to the State organization for expenses in running the office and for allocating the money throughout the State as the State organization sees fit. We have periodic meetings throughout the year to discuss political candidates. Each district has representatives on the Board of Directors of NYMPAC, based on the number of physicians in that particular district who are members of the New York State Medical Society. For each 2,000 members in a given district, the district is entitled to one member on the Board.

The Board met in August and discussed with the local representatives each political candidate for Assembly and Senate, and their opponents in New York State, and, on the advice of local people, we took positions as to who should receive our support.

On Sunday of this week, we had a second meeting, where we reviewed our list and donated additional funds to different areas of the State. The Executive Committee of NYMPAC has planned a meeting in the near future to finally disburse the monies made available from you for the coming State elections.

NYMPAC has made a tremendous difference in the New York State Legislature. You may not believe that, but it's true — we are recognized. The concerns of the physicians are getting a much better shake in the Legislature. The Legislature passed a bill this year which, in my opinion, we couldn't have dreamed would pass two years ago; namely, the Collateral Sources Bill. I believe we have a good chance of having it passed again this year or perhaps some other significant malpractice legislation. We have a problem, of course, as you all know, of getting the Governor to sign it, but we're working on it.

I would like to point out that as effective as we have been, it would be unrealistic to think that everything we want is automatically passed just because we have a PAC and distribute money for campaigns and elections in New York State.

* Dr. Carter addressed the House at the Tuesday afternoon session.

That just doesn't happen, but we're certainly further ahead than we were three years ago.

At the present time, NYMPAC has approximately 2,550 members. That represents about 10 percent of the total membership of the New York State Medical Society. I urge all of you to encourage your colleagues to join.

. . .Dr. Carter asked for a show of hands to establish a comparison figure as to members and nonmembers of PAC. He encouraged all those who were not members to join and indicated that by not doing so they were being supported by their fellow physicians who were members. . .

Information is available at the Headquarters Office (NYMPAC) and through the representatives of your district about these assemblymen and senators in a particular district who received contributions. I'll tell you who they are so you can contact them.

In the Third District I represent Albany. In the First District, it's Robert O'Connor — Staten Island; Ralph Schwartz and Phil Cohen — Kings County; Leonard Heimoff — Bronx County; Alexander De la Garza and Morton Kurtz — Queens County; John Finkbeiner, Wilfred Reguero, and Carl Goldmark — New York County. In the Second District there is Samuel Gelfand and Ray Crampton representing Nassau County and Stanley Steckler representing Suffolk. In the 4th District it's John Clowe; in the 5th District it's Frank Bersani; in the 6th District it's Irwin Rosenberg; in the 7th District it's Sheppard Arluck; in the 8th District it's Ed Gicewicz, and in the 9th District it's William Clark and George Benninger.

Thank you very much, gentlemen, and for those of you in this group who haven't donated your $100, there is a PAC booth right outside. Thank you.

. . .The House applauded as Dr. Carter left the podium. . .

EMPIRE MEDICAL POLITICAL ACTION COMMITTEE (EMPAC) *

. . .Speaker Shanaphy recognized William C. Stein, M.D., Chairman of the Empire Medical Political Action Committee, who addressed the House as follows:

Mr. Speaker, fellow delegates, ladies and gentlemen. Once again it is my pleasure to briefly review the activities of EMPAC, your Federal Political Action Committee.

I do so with somewhat mixed emotions for there is both good news and bad news. On the plus side, I can tell you we have resolved our problems with the Federal Election Commission. Our resources are such that for the first time we have been able to totally underwrite the contribution to the New York State congressional campaign without having to ask AMPAC for assistance.

However, with the actions taken by the membership earlier today, we will have to ask for some help, but not nearly as much as in previous years. The Candidate Evaluation Committee has reviewed the entire New York State congressional campaign. We have taken a position in many of the 39 districts in New York State. We are still evaluating the various congressional campaigns, and we will continue to do so and offer additional support, where feasible, as requests are received. In this regard, we would welcome and we will evaluate all requests from our members.

On the minus side, I must tell you we still have a long way to go before reaching our full potential. In spite of the fact that probably 90 percent of the material being discussed at this House of Delegates meeting will ultimately be resolved at the medical-political interface, fewer than 15 percent of MSSNY members are contributing members to political action.

You heard Sunday that 80 members of this House are not members of the AMA. You just saw how many of you are not members of the PACs. This is very discouraging, to say the least. In an attempt to inform the membership, two meetings were scheduled several months ago, one at Lake Success for those counties east of Syracuse and one at Rochester for those counties west of Syracuse.

Congressman Carney, Assemblyman Miller, and a Board member from EMPAC all gave excellent and very informative presentations. Attendance at this meeting was very discouraging. The meeting in Rochester, scheduled on two different occasions, was finally cancelled when only two reservations were received. I am totally convinced that our burden and problems at the medical and political interface can be appreciably lightened by more effective political action. No one individual can do it. You people are the leadership and spokesmen for health care in New York State. With your help we can develop 25,000 articulate spokesmen for our side of the issues. All of you must become involved. I would repeat what I have said on so many occasions in the past. "I won't propose to tell you what time it is, but I'm certain that it's later than it's ever been before." Thank you.

. . .The House applauded as Dr. Stein left the podium. . .

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* Dr. Stein addressed the House at the Tuesday afternoon session.

AWARD PRESENTATIONS*

. . .Speaker Shanaphy recognized President Denton, who made the following presentations:

PRESIDENT'S CITIZENSHIP AWARD

. . .President Denton recognized Bernard F. Kalina, M.D. . . .

Dr. Denton: It is my privilege to present to one of our colleagues the 1980 President's Citizenship Award.

This Award has been presented annually since 1961 by the President of the Medical Society of the State of New York. Though the name of this citation has recently been changed from the President's Citation to the President's Citizenship Award, its intent has remained the same: To recognize the prolonged, outstanding, and distinguished public service of a member of MSSNY entirely unrelated to his practice of medicine.

Selecting this year's recipient has been one of the pleasures of my term in office. That, though, does not mean it was an easy task, since I had to choose one winner from among several very deserving nominees.

Upon examining the backgrounds of these nominees, however, one candidate stood out as best exemplifying the criteria of this award. He is Dr. Bernard F. Kalina, of Liberty, who was nominated by Dr. Seymour Cohen, President of the Sullivan County Medical Society.

Dr. Kalina's contributions to his community have spanned a period of 20 years. During this time, he has given unselfishly of himself as a lecturer and advisor to students, faculty, counselors, school administrators, and parents throughout Sullivan County; as a judge at science fairs and track meets, and as an acting high school track coach.

Dr. Kalina served for five years as an elected member of the Liberty Central School District Board of Education and since 1976 has served as a member of the Liberty Central Schools Committee on the Handicapped.

Dr. Kalina also has served since 1968 as a consultant to the Liberty Central School District. In this capacity he helped initiate a high school peer drug abuse prevention program; reactivated and then served as chairman of the local high school's booster club; assisted in the development of a sex education program; helped initiate a pupil personnel team, and developed local television programs designed to improve communication between parents and their children.

This extensive involvement certainly has enriched the quality of life in his community and has brought credit not only to himself, but also to our entire profession.

I therefore am honored now to present the 1980 President's Citizenship Award to Dr. Bernard F. Kalina, good citizen of Liberty, New York.

I would like to add that Dr. Kalina is not only a good citizen, a member of the Medical Society of the State of New York, but he's also a delegate from Sullivan County and a member of the AMA, and I think that makes him even more special. I would like to present Dr. Kalina with the President's Citizenship Award Ribbon and this plaque, as a memory of our high regard for him.

. . .Dr. Kalina thanked Dr. Denton and expressed his feeling that he accepts the award with great humility, for the epitome of receiving from one's own colleague is really mind-fulfilling. The House applauded as Dr. Kalina left the podium. . .

REDWAY AWARD

. . .President Denton recognized Harold L. Atkins, M.D. . . .

Dr. Denton: *The New York State Journal of Medicine* is happy to extend to Harold L. Atkins, M.D., the eighteenth annual Redway Award and Medal for his article "Emission Tomography," that appeared in the August, 1979, issue of the *Journal*.

This important contribution deserves our recognition and special commendations.

This eighteenth annual Redway Medal and Award is given to Harold L. Atkins, M.D., at the Brookhaven National Laboratory in Upton, New York, for his article on "Emission Tomography," which appeared in the August, 1979, issue of the *New York State Journal of Medicine*.

Emission tomography is a method for producing transaxial images of radionuclide distribution in sections of the body, recording localization of short lived positron emissions. This innovation has great potential for future clinical studies.

. . .Dr. Atkins thanked Dr. Denton and the Society for the honor of bestowing this award on him. The House applauded as Dr. Atkins left the podium. . .

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* The Redway Award, the William Hammond Award for Distinguished Service, the Albion O. Bernstein, M.D. Award, the New York State Traffic Safety Council Award, the Fifty-Year Citations, and Certificates of Appreciation to Lester J. Candela, M.D., Dattatraya G. Lanjewar, M.D., and Ivy Reade, CMA-AC were presented on Sunday at the opening session, as was the resolution in Appreciation of Dr. Fineberg's 50 Years of Dedicated Service to the Medical Profession; the President's Citizenship Award was presented at the Wednesday morning session; appreciation to Miss Alice Wheeler was expressed at the Thursday afternoon session.

ALBION O. BERNSTEIN M.D. AWARD

Dr. Denton: The Albion O. Bernstein, M.D. Award is given annually to a physician or scientist for an outstanding achievement in medicine. This award, presented under the auspices of the Medical Society of the State of New York, was established by the late Morris J. Bernstein to perpetuate the memory of his son, a physician who tragically lost his life while responding to a medical call.

The award for 1980 will be given to Georges Köhler, Ph.D., of the Basel Institute for Immunology in Switzerland, for his outstanding achievement in producing monoclonal homogeneous antibodies by the hybridoma technique. In four years, this breakthrough has revolutionized the science and technology of immunology.

We are sending Dr. Köhler the Award, rather than asking him to travel to New York for the presentation, as we will be requesting the honor of his participation in our scientific meeting in Niagara Falls, New York, next June.

. . .The House applauded. . .

WILLIAM HAMMOND AWARD FOR DISTINGUISHED SERVICE TO THE JOURNAL

. . .President Denton recognized Steven D. Douglas, M.D. . . .

Dr. Denton: In presenting the William Hammond Award for Distinguished Service to Steven D. Douglas, M.D., we are honoring both the *Journal* and Dr. Douglas. For many years a member of the associate editorial board, Dr. Douglas has made great contributions as a consultant; his support and suggestions have been invaluable.

It is a privilege for the *New York State Journal of Medicine* to offer this token of our appreciation for the significant assistance and many contributions of Steven Douglas, M.D.

Dr. Douglas has served the *New York State Journal of Medicine* for a number of years most diligently and has also helped in obtaining and selecting manuscripts in immunology and infectious diseases, his field of expertise.

. . .Dr. Douglas thanked Dr. Denton and indicated his great pleasure in having worked with Alfred Angrist, M.D., Editor of the *New York State Journal of Medicine*. The House applauded as Dr. Douglas left the podium. . .

CERTIFICATES OF APPRECIATION

Dattatraya G. Lanjewar, M.D.

. . .Hoyt D. Gardner, M.D., Immediate Past President of the American Medical Association, recognized Dattatraya G. Lanjewar, M.D. . . .

Dr. Gardner: The American Medical Association has many significant ad hoc committees. One of your colleagues and ours served on one of the more busy ones in the last two years. There are 87,000 colleagues in this country, who were educated beyond our own shores, that are delivering twenty-five percent of the health care in this country. Your colleague and mine, who has served on this particularly extraordinary committee, is Dr. Dattatraya G. Lanjewar. The American Medical Association wanted to acknowledge Dr. Lanjewar's contributions by presenting him with this plaque.

Dr. Lanjewar was born forty-eight years ago in Moholi, India. He graduated from the government's medical college, Nagpur University, in 1957. He trained one year in India before starting a residency in anesthesia at the Jewish Hospital in Brooklyn in 1958. He also took training in anesthesia at McGill University between 1962 and 1965. He has practiced anesthesiology in New York since 1966 when he was board certified. He has been President of the Bronx County Medical Society, a delegate to the House of Delegates of the Medical Society of the State of New York since 1975, and a nominee to the American Medical Association House of Delegates. He has been a member of the National Finance Council of the Democratic Party since 1978. He has a wife, two sons, and a daughter. His certificate reads: "The American Medical Association presents to Dr. Dattatraya G. Lanjewar, this certificate of appreciation in recognition for his contributions to American medicine and foreign medical graduates, as a member of the AMA's Ad Hoc Committee for Foreign Medical Graduate Affairs in 1978 and 1980, and witness thereof, bearing the seal of the Association, the signatures of the President, Robert B. Hunter and Chairman of the Board, Lowell Steen." Congratulations.

. . .Dr. Lanjewar thanked Dr. Gardner and recognized all those who helped make the award possible. He stated that his participation in the County and State Medical Societies and the American Medical Association was especially helpful in the cause of foreign medical graduates. The House applauded as Dr. Lanjewar left the podium. . . .

Lester J. Candela, M.D.

. . .Speaker Shanaphy recognized Henry I. Fineberg, M.D., Executive Vice-President. . .

Dr. Fineberg: Mr. Speaker, members of the House of Delegates, ladies and gentlemen. There are a great many people here who know Lester Candela, and what a remarkable career he has had in the field of medicine. After five years in military service during World War II he came to Queens, established a surgical practice, and has been active in our Society ever since. I believe that was around 1946. He has been a member of this House for seventeen years. He has been President of the Medical Society of the County of Queens, and its Executive Director for the last ten years. I still call it my Society, although I am now a member of Suffolk County Medical Society. Just recently, on September 8, he retired.

We felt that we should recognize his spirit of service and what he has done for his people in Queens County. Therefore, I would like to present this certificate to him, on behalf of the Medical Society of the State of New York. It is signed by your President and your Executive Vice-President: "The Medical Society of the State of New York presents this Certificate of Appreciation to Lester J. Candela, M.D., Executive Director and Past-President of the Medical Society of the County of Queens, for his many years of dedicated service to the public, and the medical profession in these positions, and on the occasion of his retirement as Executive Director."

Ladies and Gentlemen, unfortunately, he cannot be here today. He is confined to the hospital. But, I can assure you, with your approval — with your approbation — I will make sure that he gets this plaque, which we will present to him when we see him. Thank you very much.

Ivy Reade, CMA-AC

Dr. Fineberg: Ladies and Gentlemen, I now have another very pleasant assignment. As some of you may know, I am an honorary member of the American Association of Medical Assistants, New York Chapter. I don't know why they presented that great honor to me; but it has been a very fine one. It is in that capacity, my friends, that I stand here to present this Certificate of Appreciation to an outstanding lady — a leader in her profession, Mrs. Ivy Reade.

She is what they call a certified medical assistant in both administrative and clinical specialties. She has made a reputation for herself, on local, State, and national levels. We are very happy to recognize her for the work she has been doing. As a matter of fact, she is a Past President of the Kings County Chapter and the State Chapter of the AAMA.

She has been very active on the AMA level, and was recognized some time ago by the AMA for her achievements on a national level. We understand that she will be a candidate for the office of Secretary-Treasurer of the American Association of Medical Assistants.

. . .Mrs. Reade thanked the State Medical Society for the Certificate, and the House applauded as she left the podium. . .

NEW YORK STATE TRAFFIC SAFETY COUNCIL AWARD

. . .Julian Rivo, Director, Research and Program Development of the State Traffic Safety Council, recognized John D. States, M.D. . .

Mr. Rivo: Thank you, Mr. Speaker. Distinguished officers, members of the House of Delegates, ladies and gentlemen. First of all, I would like to quote from a U.S. Department of Transportation pamphlet, "*A Message to My Patients*," which is circulated to doctors throughout the country, in which it says: "We in America today are facing a serious health dilemma. Although modern medicine has enabled us to prevent and cure many serious diseases, now we face a new kind of a threat to health — voluntary illness. Because our modern medical capacities are great, we have come to rely on them to save us from all our health problems. As a result, some of us overeat, some of us smoke too much, some get too little exercise, and many of us drive our cars in such a manner that we have now made the motor vehicle crash the leading cause of death of Americans under the age of thirty-five."

When you think about this, and you think about the gentleman we are honoring today; I can't say enough about him. He has been involved in traffic safety since 1959, which preceded the involvement of the Federal government by seven years. He has been a member of the Advisory Committee to the National Highway Traffic Safety Administration, which oversees the Federal involvement in traffic safety; and the Motor Vehicle Department in Albany, which oversees the State responsiblity. He has been the Chairman of the Accident and Injury Prevention Committee of the New York State Medical Society.

I joined the New York State Traffic Safety Council fifteen years ago. . . In my many trips to Albany, the person that testified on behalf of the medical profession was Dr. John D. States. In April of this year, the State Traffic Safety Council and the Governor's Traffic Safety Committee, which is composed of all the agencies of the State involved in accident prevention, put on a series of twelve workshops on a very important subject — occupant restraint systems. I contacted Dr. States. I said, "we would like to have a member of the medical profession at each site." Dr. States not only went to the trouble of getting members of his committee, but also served for one of the doctors who couldn't attend the Buffalo Seminar, besides speaking at the Rochester Seminar.

I would like to just summarize what my feelings are for this gentleman, because I think, again, that you, like most professional groups, sometimes don't realize what some people do outside of your own profession. We meet many men as we walk or struggle through life; some are good and some are bad, and some have a measure of both. Of Dr. John States it can be said that nature endowed him with such virtue that we cannot help but pause in admiration. For truly, here is a humanist, one of us, to be sure; but apart from most, one endowed for all seasons.

In the field of traffic safety he has given generously of himself and his treasure. He has given leadership where captains were scarce. More importantly, he has graced this movement with a powerful personality, dedicated to the safety of all of us, our lives, our families, and our children.

When the history of the safety movement in America is recorded, there will be many who will claim vast accomplishments, and their worth will be suspect. But, in the State of New York, and indeed, from the shores of the Atlantic to the reaches of the Pacific, none will be more deserving of the warmth of their hearts than this modest model of a man, who has worked diligently and quietly to insure the happiness and safety of so many. Dr. John States is a man of inner vision and outward force; a man gentle, yet firm of spirit; a man of action and understanding, whose selection for this honor rewards both donor and recipient.

. . .Dr. States thanked Mr. Rivo for the award and stated that it had been the strength and the wisdom of the House of Delegates of the Medical Society of the State of New York which had made many of the achievements possible. Cooperation between the Society and governmental agencies has resulted in the Department of Motor Vehicles seeking help and advice from physicians in developing their traffic laws and in carrying out their research.

Dr. States expressed the hope that the joining of forces with the State Traffic Safety Council and its Research Director, Mr. Julian Rivo, will continue, and that New York State will continue in its leadership position in traffic safety, particularly with the help of the House of Delegates. The House applauded as Dr. States left the podium. . .

HENRY I. FINEBERG, M.D., IN APPRECIATION OF FIFTY YEARS OF DEDICATED SERVICE TO THE MEDICAL PROFESSION (Resolution 80-54)

. . .Speaker Shanaphy recognized Lynn R. Callin, M.D., Chairman of the Board of Trustees of the Medical Society of the State of New York, who addressed the House as follows:

Mr. Speaker, delegates of the House, I would like to present the following resolution, on behalf of the Seventh and Eighth District Branches of the State Medical Society.

Whereas, Henry I. Fineberg, M.D., has dedicated 50 years of his life to serving the medical profession and the people of the State of New York at all levels of organized medicine; and

Whereas, For the past 21 of those 50 years he has provided exemplary service and guidance to the members of the Medical Society of the State of New York, first as President and then as Executive Vice-President of this Society; and

Whereas, Throughout his career, he has exhibited outstanding leadership and taken uncompromising positions in the best interest of his fellow physicians, often at personal sacrifice to himself and to his family; and

Whereas, Throughout his 50 years of service, his integrity has been unparalled; therefore be it

Resolved, That the physicians of the Seventh and Eighth District Branches of the Medical Society of the State of New York wish to express their deep appreciation to Henry I. Fineberg, M.D., for his dedication and accomplishments; and be it further

Resolved, That the House of Delegates of the Medical Society of the State of New York accept this resolution and direct that it be spread upon the permanent records of the Medical Society of the State of New York.

■

⟹*Resolution 80-54 was* **ACCEPTED** *by* **ACCLAMATION**.

ALICE WHEELER

. . .Speaker Shanaphy recognized Miss Alice Wheeler. . .

Dr. Shanaphy: In the News of New York, you will find a paragraph which indicated that we have another one of our colleagues, in addition to Dr. Fineberg, who is leaving this organization; and she has served this organization longer than anyone else in its 173 year existence. Miss Alice Wheeler, who has for 45 years been secretary to the Directors of the Division of Medical Services, is retiring today.

. . .The House applauded. . .

FIFTY-YEAR CITATIONS

President Denton: One of the most enjoyable aspects of my seemingly very short time in office has been my close association with so many fine physicians. There is one group of very special physicians, who I would like to mention now.

Every year, the Medical Society of the State of New York honors its members who are celebrating their golden anniversaries in the practice of medicine.

This year, we so honor three hundred and seventeen of these physicians. It does my heart good to present to them an award citing their fifty years of service to their patients. Obviously, we are unable to present each citation, or announce every name at this time. But, as we have done in the past, we will name each of these physicians in the minutes of the one hundred and seventy-fourth annual meeting. Citations will be sent directly to each recipient soon after this convention. Where requested, some citations will be presented at appropriate county society meetings.

All of us at the Medical Society of the State of New York extend to each of these three hundred and seventeen physicians our sincere congratulations and appreciation for a half century of dedication to medicine, and our best wishes for many more years of good health and happiness.

. . .The House applauded. . .

The list of the recipients follows:

Albany

Dicran A. Berberian
William Asa Milner

Bronx

Abraham Brookner
Morris Jacob Chernack
Joseph Citron
John Earl De Francesco
Ralph Clarence Drews
Sidney Pearl Elpern
Isidore S. Feinstein
Albert Giordano
Barnett Joseph Gold
Philip Goldstein
Maurice David Grant
Abraham Jezer
Louis H. Klinger
Herbert Kubel
Charlotte B. Lissauer
Anthony J. D. Marazita
Morris Abraham Raif
Laszlo Reich
Anna Samuelson
Saul Alvin Schwartz
Joseph Robert Sills
David Haskell Spotkov
Leopold Tabatznik
Philip Benjamin Wahrsinger
Max J. Weinstein
Harry Weinstock
Michael J. Williams

Broome

Ernest Franklin Hock
John Sassani

Cayuga

Frank Louis De Furio

Chautauqua

Benjamin Saxton Custer
Carleton Arthur Heist
Harold H. Saxton

Chemung

Swen L. Larson

Chenango

Lawrence J. Dunne
Norman Campbell Lyster

Clinton

Zygmunt Pruski

Columbia

Harold Levine

Delaware

Elliot Danforth

Dutchess

Herman J. Christensen
Peter Mombello
Garrett A. Hobart Price

Erie

Winfield L. Butsch
Mary Catalano
Hamilton J. Clarke
James P. Cole
Wilbur Fisher
Stuart Good
Clarence F. Heyden
James Kanski, Sr.
Jacob I. Lampert
Heinz Lichtenstein
Maurice N. O'Connor
Marvin Sarles
Richard Taylor

Franklin

Marguerite Kingsbury

Genesee

Charles Muller Graney

Herkimer

Loftus L. Bryan
Harold Frederick Buckbee
Margot L. Forbes

Jefferson

Levi Otis Fox
James A. McCullough

Kings

Edward J. Amorosi
Hyman A. Asher
Harry A. Beckenstein
David Bergstein
Nathan Brodie
Saul Wolfe Brustein
Salvatore Perri Carvo
Fred Cohen
Hyman Colin
James A. Del Vecchio
Harry Ehrlich
Rocco Paul Faraldo
Morris Feldman
Sigmund Forster
Sydney F. Freilich
Samuel Galburt
Hyman Sanders Gellin
Luciano Fiore Gentile
Joseph Gertner
Jacob R. Ginsberg
Isaac F. Gittleman
Natalie P. Goldberg
Morris C. Goldberg
Maurice F. Goldfinger
Milton Burt Handelsman
David Hauptman
Hyman Aaron Hauptman
Albert Edward Held
Nathaniel Robert Hermann
Frank Kaminsky
B. Bernard Kaye
John Joseph P. Kilgallen
Joseph Korn
Nathan Krinsky
Sidney E. Lenke
Ida Levine
George Liberman
John Jacob Lille
William Lipton
Rebecca G. Liswood
Vito Luongo
Andrew Bohdan Makarushka
William A. Edwin Maloney
Jacob Melnik
Francis P. Melomo
Alexander Mintzer
Samuel Morrock
Benjamin Harvey Oremland
David Birchard Peters
Benjamin Pollet
Albert Jay Ritzmann
Abner Herman Rosenthal
Benjamin Joseph Rosenthal
Gdali Rubin
Julius Rudnick
David H. Schulman
I. Richard Schwartz
Joseph Schwartzman
Alexander Singer
Maurice Irving Teicher
Robert Tuby
William Allen Weiss
Abraham Wenger
Carl L. Wertheimer

Livingston

Vincent I. Bonafede
Julia A. Delehanty
Frank Badger Smarzo

Madison

Fred Feldman
E. Howard M. Young

Monroe

Ralph Edward Delbridge
William Hutton English
George Harrison Fuller

Meyer Gorin
Einar Lie
John Norman Mc Eachren
Paul William Preu

Nassau

Albert Abelson
Samuel Ganz
John Henry Heldt
Herman S. Lieberman
Edwin R. Linwood
Charles Lowell Medd
E. Terrill Montgomery
Frank C. Nichols
Charles Joseph Preefer
Alexander H. Rosenthal
Stuart Tennent Ross
Henry Tanner
Maurice Vaisberg
Alexander Zabin

New York

Bernard Amsterdam
Arthur Joseph Antenucci
Francis A. Beneventi
Irving Bieber
William Benjamin Birnkrant
Lester Blum
Frederick David Bridge
Herbert Chasis
Joseph John Doltolo
William Dailey Dunaway
Ernest Feldmar
Vincent James Fiocco
Arthur N. Frankel
Abraham H. Friedman
Joseph Jay Friedman
Joseph Galasso
Sidney S. Gaynor
Alice L. Arnold Gilbert
Leon Goldberg
Louis Goodkin
Jules David Gordon
Leonard Greenburg
Edward B. Greenspan
Emanuel Hellman
Morris Herman
Harry L. Jaffe
Saul Jarcho
Harry J. Johnson
David Kalkstein
Adib H. Karam
Hans Kaunitz
Michael Kenney
Otto C. Kestler
Norvin Charles Kiefer
Hans S. Kiwi
Taras Kolesnikoff
Hans Kraus
Nathaniel T. Kwit
Jacob Moses Leavitt
Saul P. Lehv
Louis Levinstim
Frederick Lee Liebolt
Mack Lipkin
Yela Lowenfeld
Irwin I. Lubowe
Ida Mayer
Marsh Mc Call
Rosa Lee Nemir
William Pace
Hugo R. Paganelli
Charles Allen Perera
Henry Peskin
Charles Aden Poindexter
Adolph Posner
Nathan Regal
Herman Seligman Roth
Mark S. Rothenberg
Emanuel Rubin
Joseph E. Rubinstein
Nina M. Samilov
I. Peter Sanders
Robert Abraham Savitt
Max Schenk
Frank Schwimmer
Marjorie K. Smith
A. Alfred Solomon
Saul Solomon
Max Leon Som
Alfred Stallmeister
Mario E. Stella
Elizabeth G. Sunners
Gurney Taylor
Mary Marjory Thomson
Irwin Paul Train
Harry Wallerstein
Robert Wallis
Byard Williams
Lewis R. Wolberg
Harry Yarnis
Morris Zimmerman

Oneida

Benjamin Victor Di Iorio
Karl William Gruppe
Gerald Frederick Jones
Stuart E. Krohn

Onondaga

Paul Chester Clark
I. Herbert Katz
Erwin Lindenfeld
John Ryan Myers

Orange

Edwin H. Douglass, Jr.
Frederick Hollenberg
Meyer William Lynn
Milton Mendelson
Theodore R. Proper
William R. S. Quackenbush
Frederick Truax Seward
Paul H. Watson
Eugene F. Wolff

Oswego

Umbert Cimildoro
Joseph Mead Riley
Alton Bernard Thompson

Queens

J. Edward Astrachan
Joseph Barad
Abraham Black
Morris Joseph Bloom

Arthur Henry Carson
Thomas Joseph Costigan
Irving Gustave Frohman
Max Joseph Halperin
August G. Hinrichs
Louis Hoffner
Alfred A. Imperato
Elmer A. Kleefield
Vera H. Layton
Le Roy Levinson
Grace R. Martus
Francis Joseph Muller
Jacob Ernest Nadler
Israel Pine
Abraham N. Saperstein
Arnold Stanton
Harry Stoop
Alfonso A. Vanore
Ezra A. Wolff

Rensselaer

William B. McDonald, Sr.
Leo S. Weinstein

Richmond

Henry Aloysius Crane

Rockland

Paul B. Van Dyke

Saratoga

Joseph Maurice Lebowich

Schenectady

James Morgan Blake
Myron John Dybich
Dwight S. Hinsdale
Norman D. Kathan

Schoharie

Duncan Leonard Best

Steuben

Charles Arthur Rose

Suffolk

Richard F. Binzley
William Ruether Carman
Anthony Ralph Cherry
Vincent A. Doroszka
Henry Greenberg
Cecil Samuel Gross
George J. Kantor
Morris William Molinoff
Charles Taintor
Charles E. Tilley
Ralph M. Towlen
Frederick Weinberg

Sullivan

Sirkka E. Vuornos

Ulster

Jack Lehner
Robert F. Moseley

Warren

John E. Cunningham
Edward Patrick Ryan

Westchester

Frederick William Bowers
Angelo Arthur Ciocca
Percy Garson
Ernest Foster Gordon
Henry W. Kaessler
H. Virginia Langworthy
Robert R. M. McLaughlin
Giacento Charles Morrone
Bernard Osiek
Stanford Pulrang
Daniel Meyer Rolett
Marshall H. Wood

Introduction of Guests

. . .Speaker Shanaphy introduced the following guests, who addressed the House and were applauded. . .

W. Raymond James, M.D., President of the Connecticut State Medical Society

Robert McAfee, M.D., President of the Maine Medical Association

Matthew Marshall, M.D., President of the Pennsylvania Medical Association

Introduction of Past-Presidents

. . .Speaker Shanaphy introduced the following past-presidents who were in the House: James M. Blake, Lynn R. Callin, George L. Collins, Jr., Ralph S. Emerson, Henry I. Fineberg, Carl Goldmark, Jr., Walter T. Heldmann, George Himler, Norman S. Moore, Edward Siegel, George T. C. Way, and Walter Scott Walls.

HOUSE COMMITTEE ON BYLAWS

To the House of Delegates, Ladies and Gentlemen:

The House Committee on Bylaws consists of the following members:

Daniel F. O'Keeffe, M.D., *Chairman*	Warren
Edgar P. Berry, M.D.	New York
Rodman D. Carter, M.D.	Otsego
George L. Collins, Jr., M.D.	Erie
James M. Flanagan, M.D.	Wayne
Carl Goldmark, Jr., M.D.	New York
Allison B. Landolt, M.D.	Westchester
George Lim, M.D.	Oneida
Vincent I. Maddi, M.D.	Broome
Milton Rosenberg, M.D.	Suffolk
M. Theodore Tanenhaus, M.D.	Kings
G. Rehmi Denton, M.D., *President, ex officio*	Albany
Victor J. Tofany, M.D., *Secretary, ex officio*	Monroe
Joseph J. Shanaphy, M.D., *Speaker, ex officio*	Richmond

A meeting of the Reference Committee on Bylaws was held at the Sheraton Centre in New York City on September 17, 1979. The Reference Committee was appointed to receive input from delegates as to their thoughts of the resolutions referred to the House Committee on Bylaws. The input received from the meeting of the Reference Committee on Bylaws proved to be of great assistance to the House Committee in its deliberations.

In all, ten resolutions asking for amendments to the Bylaws were referred to the Committee for consideration.

The following actions were taken with respect to the resolution referred to this Committee.

Resolution 79-1, Members who have been Dropped from the Roles of Membership of the Component County Medical Societies and the Medical Society of the State of New York

Introduced by Medical Society of the County of Kings.

Whereas, It is increasingly apparent that our dues-paying membership is shrinking alarmingly; and

Whereas, There is a large pool of members who have been dropped from membership in the component county medical societies and the Medical Society of the State of New York for one reason or another; and

Whereas, It has come to our attention that a strong deterrent to rejoining our ranks is because the Bylaws of the Medical Society of the State of New York require that a former member must pay the dues and assessments for the delinquent year in addition to the dues for the application year in order to be reinstated; and

Whereas, The remittance of the two years' dues presents an enormous burden and dissuades an individual from seriously considering reactivation of his/her membership; and

Whereas, Article XV, paragraph 8 of the Bylaws of the Medical Society of the State of New York should be amended to permit applicants for reinstatement to pay half of the delinquent year's dues and assessments in addition to the dues for the year of reactivation; therefore be it

Resolved, That the Medical Society of the State of New York amend Article XV, paragraph 8 of the Bylaws by the addition of the words "one half of" after the word "paid," and the addition of the sentence, "The privilege of forgiveness of one half of the dues and assessments for the delinquent year for a former member is limited to one time."

Article XV, paragraph 8 of the Bylaws would then read as follows:

> "Dues and State Society assessments of a member elected or reinstated after October 1 shall be credited to the succeeding year, but no member dropped for nonpayment of dues and assessments shall be reinstated until he has, in addition, paid one half of his dues and assessments for the year in which he was dropped. The privilege of forgiveness of one half of the dues and assessments for the delinquent year for a former member is limited to one time."

It was the unanimous opinion of the Committee that this resolution would only encourage delinquency by delaying the payment of dues until after the delinquency date.

The Committee, therefore, recommends **DISAPPROVAL** of Resolution 79-1.

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⇒. . .*The House, after discussion, voted to* **NOT ADOPT** *Resolution 79-1. . .*

Resolution 79-2, Unified Membership in County, MSSNY, and AMA

Introduced by Medical Society of the County of St. Lawrence

Whereas, The State of New York has a physician population of 48,000; and

Whereas, Only 26,600 (55%) are members of the Medical Society of the State of New York; and

Whereas, Of these 26,600, only 13,500 are members of the American Medical Association; and

Whereas, The AMA is the only "medical organization of medical organizations"; and

Whereas, The need for a unified membership becomes essential because of the encroachment of medicine by government and all other third parties; therefore be it

Resolved, That the Medical Society of the State of New York institute a campaign directed to all physicians in the State of New York advising them of the need for support and of the benefits which physicians derive by joining MSSNY and the American Medical Association; and be it further

Resolved, That membership in the County Medical Societies and MSSNY include unified membership in the AMA.

Although the Committee was in sympathy with the concept of unified membership, responses regarding mandatory unified membership are overwhelmingly negative. While the Committee cannot recommend approval of Resolution 79-2 because of the overwhelmingly negative response, the Committee continues to encourage members of the MSSNY to join the American Medical Association.

The Committee, therefore, recommends **DISAPPROVAL** of Resolution 79-2.

In response to a request, Speaker Shanaphy divided the question into 1) the first resolved of Resolution 79-2, and 2) the second resolved of Resolution 79-2.

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⟹. . .*The House, after discussion, voted to* **ADOPT** *the first resolved of Resolution 79-2. . .*

⟹. . .*The House, after considerable discussion, voted to* **NOT ADOPT** *the second resolved of Resolution 79-2 (153 Voting: 101 required to pass; 60 Yes; 93 No). . .*

Resolution 79-3, Direct Election of Councilors of the Medical Society of the State of New York by District Branches

Introduced by Onondaga County Medical Society

Whereas, More direct responsibility and representation to the Council of the Medical Society of the State of New York is important; and

Whereas, This would improve two-way communication and responsiveness between the State and county medical societies; and

Whereas, This would strengthen and improve the importance of the individual districts of the Medical Society of the State of New York; therefore be it

Resolved, That the Medical Society of the State of New York approve the principle that the members of the Council be elected by each district; and be it further

Resolved, That the Medical Society of the State of New York amend Article IV, Section 1, paragraph 1 of the Bylaws by the addition of the phrase "elected by the House of Delegates" after the word "Trustees"; and deletion of the words "House of Delegates" and insertion of the words "District Branches" after the phrase "elected by the."

Article IV, Section 1, paragraph 1 of the Bylaws would then read as follows:

> "The Council shall be composed of the president, president-elect, vice-president, immediate past-president, secretary, assistant secretary, treasurer, assistant treasurer, speaker, vice-speaker, and chairman of the Board of Trustees elected by the House of Delegates, and 12 councilors elected by the District Branches."

and be it further

Resolved, That the Medical Society of the State of New York amend Article IV, Section 1, paragraph 3 of the Bylaws by deletion of the words "House of Delegates" and insertion of the words "District Branches" after the phrase "elected annually by the"; deletion of the world "Council" and insertion of the words "District Branch" after the phrase "be elected by the"; and deletion of the phrase "to serve until the next meeting of the House of Delegates" at which time the House of Delegates shall elect a councilor.

Article IV, Section 1, paragraph 3 of the Bylaws would then read as follows:

> "Four councilors shall be elected annually by the District Branches, each for a term of three years. In the event of a vacancy, a councilor shall be elected by the District Branch to fill the unexpired term."

and be it further

Resolved, That the Medical Society of the State of New York amend Article VIII, paragraph 1 of the Bylaws by the deletion of the word "councilors" after the word "officers."

Article VIII, paragraph 1 of the Bylaws would then read as follows:

> "As the first business of the last scheduled session of the annual meeting of the House of Delegates, the officers and trustees of the Medical Society of the State of New York and the delegates to the American Medical Association shall be nominated and elected."

and be it further

Resolved, That the Medical Society of the State of New York amend Article VIII, paragraph 2 of the Bylaws by the deletion of the words "the Council" after the word "office" and deletion of the word "councilor" after the word "officer."

Article VIII, paragraph 2 of the Bylaws would then read as follows:

"A member of the Medical Society of the State of New York who is in arrears for component county medical society dues or State Society dues or assessments shall not be eligible for nomination to any office, the Board of Trustees, or as a delegate to the American Medical Association, or entitled to vote for any officer, trustee, or delegate."

The House of Delegates considered the issue of Direct Election of Councilors by District Branches in 1978, through Resolution 77-1. The question regarding Direct Election of Councilors by District Branches failed to obtain a majority, let alone the required two-thirds majority. The same issue was considered by the House of Delegates in 1979 through Resolutions 78-1 and 78-8. Again, less than a simple majority of the House of Delegates favored direct elections. Not only was direct elections soundly defeated, but, the House of Delegates in 1979 approved Resolution 78-5 which amended the Bylaws to specifically state that the Council of the Medical Society of the State of New York is in fact the executive committee of the House of Delegates. The fact that the House of Delegates chose to emphasize this point by amending the Bylaws, indicates the strong sentiment taken against direct elections.

Resolutions calling for direct elections remain routinely submitted yearly. The Committee, however, has not received nor heard any new facts which support its adoption. The Committee believes that the arguments opposing direct election of Councilors by District Branches are more persuasive. For these reasons, the Committee has decided to repeat the portion of the 1978 Report of the House Committee on Bylaws, as follows:

"The Council exercises the rights and duties of the House of Delegates when the House of Delegates is not in session; yet the Council must remain accountable to the policies set by the House of Delegates. Under our Bylaws, all resolutions and actions of the Council are subject to review by the House of Delegates. The councilors are assigned to the specific county societies to act as liaison for the Council. This committee feels that this provides for accountability. The committee does not see how depriving the House of Delegates of electing twelve of its officers on its executive body can increase accountability. (The balance of the voting members on the Council consist of officers and the Chairman of the Board of Trustees.)

"The Bylaws Committee firmly believes in our present system of representative democracy. Under our present system, each component county medical society elects its delegates to the House of Delegates, who along with the officers, councilors, trustees, delegates from the district branches, and section delegates, comprise the policy making body of the Medical Society of the State of New York. It is in the House of Delegates where the local interests may come together for the purposes of formulating and coordinating Statewide policies and objectives.

"The committee recognizes that when councilors are elected, there must be a consideration of both local and Statewide issues and objectives. The committee feels that the only body of the Medical Society of the State of New York capable of operating in such a framework is the House of Delegates, since it comprises representatives from all parts of the State. The House of Delegates, therefore, when it holds elections for councilors, as when it considers all matters, may benefit from the diverse ideas from all areas, which in turn allows for full discussion and consideration of all issues in the selection of councilors. This is not possible if councilors are selected by nine separate election procedures conducted by district branches. Under such a system, there would be no coordination of objectives; there would be a limited opportunity for a full discussion of all the issues, both State and local; and there would only be increased fragmentation. Direct election by district branches may result in the election of people who do not represent the actual majority of members. One reason cited by the proponents of direct election is that local interests have no real voice in the Medical Society of the State of New York since the House of Delegates is a mere 'rubber stamp' of the Council. This committee rejects this contention. The House of Delegates has the authority to review all actions and resolutions of the Council, and initiates policy to be followed by the Council.

"The committee believes that any delegate who feels that the House of Delegates is but a mere 'rubber stamp' misunderstands the nature of his duties and responsibilities to the House of Delegates, to the component county society that he represents, and to the Medical Society of the State of New York.

"The committee concurs that policies be developed to increase coordination of activities between the Medical Society of the State of New York and its component county medical societies. Direct election of councilors, however, is not the answer. This committee strongly supports and believes in the goals of the Medical Society of the State of New York and particularly feels the overriding objective, as stated in Article I of the Medical Society of the State of New York Bylaws, is '. . . to federate into one organization the medical profession of the State of New York. . . .' This committee feels the direct election of councilors by district branches represents a giant departure from this stated goal."

The Committee, therefore, recommends **DISAPPROVAL** of Resolution 79-3.

■

⟹. . . *The House, after considerable discussion, voted to* **NOT ADOPT** *Resolution 79-3 (168 Voting: 111 required to pass; 83 Yes; 85 No). . .*

Resolution 79-14, Medical Society of the State of New York Dues for Interns and Residents

Introduced by Onondaga County Medical Society

Whereas, Article XV, "Dues," paragraph 3 of the Bylaws of the Medical Society of the State of New York states:

"The dues and assessments of those active members who have been graduated from medical or osteopathic college not more than five calendar years, not counting active service in the armed forces of the United States or in the United States Public Health Service, or who have not completed their continuous residency training shall be one third the amount levied on all other active members. In no case may an active physician continue to pay such reduced dues more than seven years after the date of graduation from medical or osteopathic school"; and

Whereas, The dues requirements of the American Medical Association for physicians in the above category are only $35.00 per year; and

Whereas, The combined membership dues for interns and residents for both MSSNY and AMA is $101.67; and

Whereas, This sum represents an economic hardship to interns and residents, most of whom are already burdened by sizable loans for their medical education; and

Whereas, It is very important that interns and residents be offered every inducement for membership in the federation; therefore be it

Resolved, That the Medical Society of the State of New York amend Article XV, "Dues," paragraph 3, by the deletion of the phrase "one third the amount levied on all other active members" after the phrase "continuous residency training shall be," and the addition of the words "no more than the dues of the AMA for interns and residents."

Article XV, "Dues," paragraph 3, shall then read as follows:

> "The dues and assessments of those active members who have been graduated from medical or osteopathic college not more than five calendar years, not counting active service in the armed forces of the United States or in the United States Public Health Service, or who have not completed their continuous residency training shall be no more than the dues of the AMA for interns and residents. In no case may an active physician continue to pay such reduced dues more than seven years after the date of graduation from medical or osteopathic school."

The Committee feels Resolution 79-14 is not necessary since Resolution 78-3, which lowered dues and assessments for active members of the Medical Society of the State of New York in residency training was adopted last year. With the adoption of Resolution 78-3, Article XV, paragraph 3 of the Bylaws currently reads:

"The dues and assessments, of those active members who have been graduated from medical or osteopathic college not more than five calendar years, not counting active service in the armed forces of the United States or in the United States Public Health Service, shall be one third the amount levied on all other active members. The dues and assessments of those active members who have not completed their continuous residency training shall be one-tenth the amount levied on all other active members. In no case may an active physician continue to pay such reduced dues more than seven years after the date of graduation from medical or osteopathic school."

The Committee, therefore, recommends **DISAPPROVAL** of Resolution 79-14.

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⟹. . .*The House voted to* **NOT ADOPT** *Resolution 79-14. . .*

Resolution 79-27, Age Qualification for Entitlement to Life Membership for Practicing Physicians

Introduced by Medical Society of the County of Queens

Whereas, The Bylaws of the Medical Society of the State of New York were changed to raise the age limit for life membership from seventy to seventy-five for "practicing" physicians; and

Whereas, The motivating factor for this change was the increase in the ratio of nonpaying members to the paying members; and

Whereas, Many practicing physicians over seventy years of age have a very limited practice, with limited income; and

Whereas, The increase in life membership age from seventy to seventy-five for these physicians is causing them to resign in bitterness; and

Whereas, Physician members with decreasing income are resigning from membership and the intended change in raising the age limit for life membership is, therefore, having the reverse effect; and

Whereas, Many of those resigning have been loyal, dues paying members for 30–40 years or more, and now feel betrayed, and are resentful, thus creating a poor image for MSSNY; and

Whereas, The Bylaws of the Medical Society of the State of New York should be amended to accommodate this change; therefore be it

Resolved, That Article II, Section 1, paragraph 6 of the Bylaws of the Medical Society of the State of New York be changed by deleting the word "seventy-five" and inserting the word "seventy" after the phrase "prior to the attainment of the age of."

Article II, Section 1, paragraph 6 would then read as follows:

"An active member in good standing who has completely withdrawn from the active practice of medicine and who has been a member in good standing for the ten consecutive years prior to the attainment of the age of seventy years or an active member in good standing who continues the active practice of medicine and who has been a member in good standing for the ten consecutive years prior to the attainment of the age of seventy years, or an active member in good standing for ten consecutive years or more who is permanently disabled, may apply for life membership. The House of Delegates or the Council may waive the requirements in a proper case where there appear to be extenuating circumstances. He shall apply for such life membership to the component county medical society of which he is a member. His application shall be governed by the constitution and bylaws of the component county medical society relative to active membership."

and

Resolution 79-39, Life Membership

Introduced by Nassau County Medical Society

Whereas, The Medical Society of the State of New York amended its Bylaws in 1978 concerning life membership; and

Whereas, The Nassau County Medical Society, in considering the changes in the MSSNY life membership category, believes there is no justifiable reason why a physician should not be entitled to life membership at the age of 70 rather than 75; and

Whereas, NCMS also believes that a physician who retires from the active practice of medicine, irrespective of age, and has been an active member in good standing for ten consecutive years should also be entitled to life membership; therefore be it

Resolved, That Article II, Section 1, paragraph 6 of the Bylaws be amended by deleting the phrase "prior to the attainment of the age of seventy years" after the words "ten consecutive years" and deleting the word "seventy-five" after the phrase "attainment of the age of" and inserting the word "seventy."

Article II, Section 1, paragraph 6 would then read as follows:

> "An active member in good standing who has completely withdrawn from the active practice of medicine and who has been a member in good standing for ten consecutive years or an active member in good standing who continues the active practice of medicine and who has been a member in good standing for the ten consecutive years prior to the attainment of the age of seventy years, or an active member in good standing for ten consecutive years or more who is permanently disabled may apply for life membership. The House of Delegates or the Council may waive the requirements in a proper case where there appear to be extenuating circumstances. He shall apply for such life membership to the component county medical society of which he is a member. His application shall be governed by the constitution and bylaws of the component county medical society relative to active membership."

Because of the similarity of content, Resolutions 79-27 and 79-39 were reviewed at the same time.

The Reference Committee on Bylaws recommended that the House Committee on Bylaws oppose Resolutions 79-27 and 79-39, but also recommended that the House Committee on Bylaws support some provision for reduced dues for members who have been in good standing for the ten years prior to the attainment of seventy years of age, but who have not completely withdrawn from the active practice of medicine.

The Committee, after thorough discussion, decided that it was opposed to changing the current requirements for life membership, but decided to support the concept of reduced dues for active members who have been in good standing for the ten years prior to the attainment of seventy years of age, but who have not completely withdrawn from the active practice of medicine.

The House Committee on Bylaws, therefore, voted to substitute Resolutions 79-27 and 79-39 with a new resolution to read:

Resolved, That the Bylaws of the Medical Society of the State of New York be amended by the addition of a new paragraph following Article II, Section 1, paragraph 3, as follows:

> "An active member who has been a member in good standing for the ten consecutive years prior to the attainment of seventy years, but who is not completely withdrawn from the active practice of medicine, as provided by paragraph 7 of this section, shall be responsible for the payment of dues and assessments in accordance with the provisions of Article XV, paragraph 3."

and be it further,

Resolved, That a new paragraph following Article XV, paragraph 2, be added as follows:

> "The dues and assessments of those active members who have been in good standing for the ten consecutive years prior to the age of seventy years shall be one half the amount levied on all other active members."

The Committee, therefore, recommends **APPROVAL** of the substitute resolution for Resolutions 79-27 and 79-39.

■

⟹. . .*The House voted to* **NOT ADOPT** *the substitute resolution proposed by the House Committee on Bylaws. . .*

The House postponed action on Resolutions 79-27 and 79-39 until the Wednesday session of the House, pending additional information on 1) the number of physicians presently in the 70 or older category and 2) the financial impact on the Society if the required life membership age would be reduced.

The House Committee on Bylaws met in open executive session on Tuesday morning, September 30, 1980, and, following discussion, presented the following report to the House:

"The Committee recommends disapproval of Resolutions 79-27 and 79-39. It is the intention of the House Committee on Bylaws to research the entire question of life membership, retired members, semiretired members, and it intends to present a resolution covering these issues at the 1981 House of Delegates."

⟹. . .*The House, after considerable discussion,* **REFERRED** *Resolutions 79-27 and 79-39 back to the House Committee on Bylaws (189 Voting: 125 required to pass; 95 Yes; 94 No). . .*

Resolution 79-37, Number and Assignment of Councilors

Introduced by Westchester County Medical Society

Whereas, Direct responsibility and assigned representation to the Council of the Medical Society of the State of New York is desirable; and

Whereas, This would facilitate better communication and unity of purpose between the State and county medical societies; therefore be it

Resolved, That the Medical Society of the State of New York amend Article IV, Section 1, paragraph 1 of the Bylaws by increasing the number of councilors from 12 to 15, renaming councilors "district councilors," and inserting a new sentence to read:

> "Five district councilors shall be elected from District 1, two district councilors each shall be elected from Districts II and IX, and one district councilor each shall be elected from the remaining Districts (III through VIII)."

Article IV, Section 1, paragraph 1 would then read as follows:

> "The Council shall be composed of the president, president-elect, vice-president, immediate past-president, secretary, assistant secretary, treasurer, assistant treasurer, speaker, vice-speaker, chairman of the Board of Trustees, and 15 district councilors elected by the House of Delegates. Five district councilors shall be elected from District 1, two district councilors each shall be elected from Districts II and IX, and one district councilor each shall be elected from the remaining Districts (III through VIII.)"

and be it further

Resolved, That the Medical Society of the State of New York amend Article IV, Section 1, paragraph 3 of the Bylaws by deleting the words "Four councilors" in line 1, and inserting the words "Five district councilors"; and deleting the word "councilor" in lines 3 and 6, and inserting the words "district councilors."

Article IV, Section 1, paragraph 3 would then read as follows:

> "Five district councilors shall be elected annually by the House of Delegates, each for a term of three years. In the event of a vacancy, a district councilor shall be elected by the Council to serve until the next meeting of the House of Delegates, at which time the House of Delegates shall elect a district councilor to fill the unexpired term.

Fiscal Note: $1,000 per year.

Illustration of Elections

First year:

2 Councilors	District I
1 Councilor	District II
1 Councilor	District III
1 Councilor	District IV

Second year:

2 Councilors	District I
1 Councilor	District IX
1 Councilor	District V
1 Councilor	District VI

Third year:

1 Councilor	District I
1 Councilor	District II
1 Councilor	District IX
1 Councilor	District VII
1 Councilor	District VIII

(Or any reasonable distribution of district councilors allowed fairly and equitably as the Nominating Committee sees fit.)

At the reference committee hearing, an amendment was proposed by Robert Mayers, M.D., of Westchester County, and supported by New York County that the number of councilors be changed from 15 to 16.

The Resolved portion of the resolution, as amended, would then read:

Resolved, That the Medical Society of the State of New York amend Article IV, Section 1, paragraph 1 of the Bylaws by increasing the number of councilors from 12 to 16, renaming councilors "district councilors," and inserting a new sentence to read:

> "Six district councilors shall be elected from District I, two district councilors each shall be elected from Districts II and IX, and one district councilor each shall be elected from the remaining Districts (III through VIII)."

Article IV, Section 1, paragraph 1 would then read as follows:

> "The Council shall be composed of the president, president-elect, vice-president, immediate past-president, secretary, assistant secretary, treasurer, assistant treasurer, speaker, vice-speaker, chairman of the Board of Trustees, and 16 district councilors elected by the House of Delegates. Six district councilors shall be elected from District 1, two district councilors each shall be elected from Districts II and IX, and one district councilor shall be elected from the remaining Districts (III through VIII)."

and be it further,

Resolved, That the Medical Society of the State of New York amend Article IV, Section 1, paragraph 3 of the Bylaws by deleting the words "Four councilors shall be elected annually" in line 1, and inserting "Five district councilors shall be elected annually, for two years, and six district councilors shall be elected every third year"; and deleting the word councilor in lines 3 and 6, and inserting the words "district councilors."

Article IV, Section 1, paragraph 3 would then read as follows:

"Five district councilors shall be elected annually for two years, and six district councilors shall be elected every third year, by the House of Delegates, each for a term of three years. In the event of a vacancy, a district councilor shall be elected by the Council to serve until the next meeting of the House of Delegates, at which time the House of Delegates shall elect a district councilor to fill the unexpired term."

Illustration of Elections

First year (5 district councilors elected)

2 Councilors	District I
1 Councilor	District II
1 Councilor	District III
1 Councilor	District IV

Second year (5 district councilors elected)

2 Councilors	District I
1 Councilor	District IX
1 Councilor	District V
1 Councilor	District VI

Third year (6 district councilors elected)

2 Councilors	District I
1 Councilor	District II
1 Councilor	District IX
1 Councilor	District VII
1 Councilor	District VIII

(Or any reasonable distribution of district councilors allowed fairly and equitably as the Nominating Committee sees fit.)

Resolution 79-37 is similar to Resolution 77-3 which was rejected by the House of Delegates in 1978. For the same reasons the Committee does not believe that increasing the number of councilors would necessarily increase the quality of debate. Not only would the increased number of councilors provide an unwieldy forum, but the Committee is concerned that it would also result in unnecessary added expense with small benefit. Furthermore, the Committee concludes that it is not in the Society's best interest to require that councilors come from the district to which they are assigned, although this is the usual arrangement. The Committee feels that this requirement only "locks" the House of Delegates into a specific course which can only decrease the amount of flexibility available to our governing body.

The Committee, therefore, by a vote of 10 to 1 recommends **DISAPPROVAL** of Resolution 79-37.

■

The House postponed action on Resolution 79-37 at the Sunday session, pending additional information on demographic changes in physician population.

The House Committee on Bylaws met in open executive session on Tuesday, September 30, 1980, and again considered Resolution 79-37. At the Wednesday session of the House, the House Committee on Bylaws reported:

"The House Committee on Bylaws, for the same reasons stated in prior years, again recommends disapproval of the proposal to increase the number of councilors. It was made abundantly clear that the councilors, when they sit as a legislative body, do not represent parochial interests, but rather the interests of the State as a whole."

⟹. . .*The House, after considerable discussion, voted to* **NOT ADOPT** *Resolution 79-37 (212 Voting: 141 required to pass; 72 Yes; 140 No). . .*

Resolution 79-38, Vacancies and Succession

Introduced by Westchester County Medical Society

Whereas, A full complement of officers and councilors is essential for the Council to function effectively; and

Whereas, The present Bylaws do not provide for the event if the offices of the assistant secretary, assistant treasurer, and vice-speaker become vacant while the House of Delegates is in recess; therefore be it

Resolved, That the Bylaws of the Medical Society of the State of New York be amended by adding a new paragraph following Article V, Section 1, paragraph 8 to read as follows:

"If the office of assistant secretary, assistant treasurer, or vice-speaker becomes vacant, for any reason whatsoever, the Council, when the House of Delegates is not in session, shall elect a successor for the unexpired term."

The Committee believes this is basically a housekeeping change.

The Committee, therefore, recommends **APPROVAL** of Resolution 79-38.

■

⟹. . .*The House voted to* **ADOPT** *Resolution 79-38. . .*

Resolution 79-40, Past President of AMA—A Member of the House of Delegates of the Medical Society of the State of New York for Life

Introduced by Medical Society of the County of New York

Whereas, Article III "House of Delegates," Section 1, "Composition," paragraph 1 of the Bylaws of the Medical Society of the State of New York specifies: "The House of Delegates shall be composed of . . . (g) past-presidents of the State Society who shall be members for life; and

Whereas, Occasionally a member of MSSNY who has not been a past-president of MSSNY has been elected to the high office of President of the AMA; and

Whereas, That individual would have given many years of continuing valuable service to MSSNY and therefore merits the distinction of being a life member of the House of Delegates of MSSNY; therefore be it

Resolved, That Article III, "House of Delegates," Section 1, "Composition," paragraph 1 of the Bylaws be amended by the addition of the phrase "and any past president of the American Medical Association provided that individual is a member of the Medical Society of the State of New York" after the words "State Society" in paragraph 1(g).

Article III, Section 1, paragraph 1 would then read as follows:

> "The House of Delegates shall be composed of: (a) duly designated delegates from the component county medical societies; (b) officers of the Medical Society of the State of New York, councilors, and trustees; (c) a duly designated delegate from each district branch; (d) a duly designated delegate from each scientific section; (e) duly designated delegates from the student membership; (f) the Commissioner of Health of the State of New York, or a deputy designated by him, provided that any representative shall be a member of the State Society; (g) past-presidents of the State Society and any past president of the American Medical Association, provided that individual is a member of the Medical Society of the State of New York who shall be members for life; and (h) a representative from each of the medical schools in New York State, provided said representative is a member of the Medical Society of the State of New York."

The Committee believes that Resolution 79-40 provides an appropriate means of honoring a past president of the American Medical Association who is also a member of the Medical Society of the State of New York.

The Committee, therefore, recommends **APPROVAL** of Resolution 79-40.

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⟹. . .*The House voted to* **ADOPT** *Resolution 79-40. . .*

Resolution 79-43, Compliance with Continuing Medical Education Requirements

Introduced by Edward Siegel, M.D., as an Individual

Whereas, Article II, Section 3 of the Bylaws of the Medical Society of the State of New York provides that an active member who fails to fulfill the requirements for continuing medical education established by the Council of the Medical Society of the State of New York, shall not be in good standing; and

Whereas, This section shall become effective March 1, 1981; and

Whereas, Fundamental notions of fairness entitle members to reasonable notice; therefore be it

Resolved, That Article II, Section 3 of the Bylaws of the Medical Society of the State of New York be amended by adding a new paragraph to read as follows:

> "An active member who is found not to be in good standing as of March 1, 1981, or March 1 of any subsequent year, for failing to comply with paragraph 1 of this section shall receive reasonable notice that he must fulfill continuing medical education requirements by the last day of December of the year in which he is found not to be in good standing. An active member who does not fulfill continuing medical education requirements by the last day of December of the year in which he is found not to be in good standing shall automatically cease to be a member of the component county medical society and the State Society."

The Committee amended Resolution 79-43 to clarify the meaning of an active member by the addition of the phrase "as defined in Article II, Section 1." As amended the Resolved portion of Resolution 79-43 reads:

Resolved, That Article II, Section 3 of the Bylaws of the Medical Society of the State of New York be amended by adding a new paragraph to read as follows:

> "An active member as defined in Article II, Section 1, who is found not to be in good standing as of March 1, 1981, or March 1 of any subsequent year, for failing to comply with paragraph 1 of this Section shall receive reasonable notice that he must fulfill continuing medical education requirements by the last day of December of the year in which he is found not to be in good standing. An active member who does not fulfill continuing medical education requirements by the last day of December of the year in which he is found not to be in good standing shall automatically cease to be a member of the component county medical society and the State Society."

The Committee, therefore, recommends **APPROVAL** of Resolution 79-43 as **AMENDED.**

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The House voted to amend Resolution 79-43 by the addition of the phrase "unless, in the view of the Council, specific mitigating circumstances exist that the physician could not complete the CME requirements" at the end of the new paragraph in Article II, Section 3.

Article II, Section 3 of the Bylaws of the Medical Society of the State of New York would then read as follows:

> "An active member, as defined in Article II, Section 1, who is found not to be in good standing as of March 1, 1981, or March 1 of any subsequent year, for failing to comply with paragraph 1 of this Section shall receive reasonable notice that he must fulfill continuing medical education requirements by the last day of December of the year in which he is found not to be in good standing. An active member who does not fulfill continuing medical education requirements by the last day of December of the year in which he is found not to be in good stand-

ing shall automatically cease to be a member of the component county medical society and the State Society, unless, in the view of the Council, specific mitigating circumstances exist that the physician could not complete the CME requirements."

...The House voted to **ADOPT** *Resolution 79-43 as* **AMENDED** *and* **AMENDED**...

Your chairman would like to thank, in addition to the members of the Committee and the physicians who testified before it, those members of staff who have greatly aided this Committee; J. Richard Burns, J.D., General Counsel, Donald R. Moy, J.D., Staff Attorney, and Mrs. Joan Grimm and Ms. Barbara Lacey who provided their secretarial assistance to the Committee.

Respectfully submitted,
Daniel F. O'Keeffe, M.D., *Chairman*

...The House voted to **ACCEPT** *the report of the House Committee on Bylaws as acted upon by the House...*

HOUSE COMMITTEE ON BYLAWS (SUPPLEMENTARY)

To the House of Delegates, Ladies and Gentlemen:

At the conclusion of the 1979 Meeting of the House of Delegates, House Speaker, Joseph F. Shanaphy, M.D., charged the House Committee on Bylaws, in addition to acting upon the resolutions referred to it, to review the Bylaws and Principles of Professional Conduct to determine areas of required revision. To date, the Chairman has consulted with various officers, committee members, and staff for their recommendations, and their recommendations have been evaluated by the Chairman. This work, however, represents only preliminary efforts. Because of the difficult nature of this work, and time limitations, much further consideration and effort by the Committee as a whole will be necessary prior to the completion of the review. The Chairman, therefore, recommends that the House Committee on Bylaws continue this review for the coming year, should this be the desire of Speaker Shanaphy.

Respectfully submitted,
Daniel F. O'Keeffe, M.D., *Chairman*

...The supplementary report of the House Committee on Bylaws was **FILED FOR INFORMATION**...

REPORTS OF OFFICERS

PRESIDENT

Mr. Speaker, members of the House of Delegates, honored guests:

I stand before you with a sense of relief, yet sadness, at the end of a busy, rewarding, but frustrating year — a year of successes and failures, a year of holding patterns, confrontations, negotiations, and endless discusssions.

Among the major problems encountered was the change in fiscal intermediary for Medicare in the entire upstate area. A resultant change downward in individual payment profiles and regional prevailing fee schedules required many hours of work on our part in Albany, Washington, and New York to correct. Efforts are still being expended to get a good 5 digit coding system to replace the outmoded and inadequate 4 digit code used by the carrier.

Our legislative program demanded and got an intensive personal effort in Albany, supported by our excellent lobbyists, by Dr. John Carter, legislative committee chairman, and members of staff. The reception we received from the members of the legislature was excellent and markedly improved over recent years. This reflects the success of our PAC programs. The collateral sources bill passed both houses of the legislature handily, only to be vetoed by the Governor.

This action by Governor Carey pointed out a major cause of frustration to me. It has been impossible for me or other members of your Society to establish any personal contact with the Governor. This is in contrast to our relationship with his predecessors. Despite this apparent indifference to our problems, I have felt it imperative to keep all possible channels to the Office of the Chief Executive of our State open. To do otherwise would not be in the best interests of MSSNY and the people of this State.

Through negotiations and frequent meetings with Dr. Axelrod and staff members of the New York State Health Department, a satisfactory system was established to ensure the confidentiality of the data collected by the SPARCS Program. We found understanding and support from the Commissioner in working out this sensitive issue.

In this past year, for the first time since the Medicaid program was initiated, your President, Dr. Daniel O'Keeffe, and staff members of the Division of Medical Services were involved in discussions with representatives of State government involved with the Medicaid program. Included were Commissioner Barbara Blum of the Department of Social Services, and representatives of the Health Department, Department of Budget, and the Office of Health Systems Management. Despite our presentation that adequate physician fees for Medicaid cases would cut the cost of this program by returning patients to the physician's office, a unilateral decision was made by the State to increase the fees by an insignificant amount. MSSNY has absolutely refused to endorse this inadequate change.

The regionalization of the Workers' Compensation Medical Fee Schedule has been proposed by Mr. Cooperman and is being implemented by him, again on a unilateral basis. MSSNY has refused to endorse or accept this program, since our position is that usual and customary fees automatically and fairly reflect differences in the cost of running a practice in different areas of the State.

In legal actions by the Society, the No-Fault Law applied to accident victims in the State is still being contested in court. As of this time no verdict has been reached. In other areas, our amicus action in regard to the suit against the Long Island eight, resulted in dismissal on grounds that the New York Donnelly Law does not apply to professions. In a similar action in which the New York State Attorney General was suing MSSNY, AMA, Dr. Fineberg, and the Nassau County Medical Society on behalf of the chiropractors, the failure of the Donnelly Law to apply to professionals caused dismissal. The case has been appealed by the attorney general. Our suit against the State Education Department to ascertain the requirement of the mandatory release of office records in their entirety to the patient is still under way.

MSSNY has moved in other areas that offer exciting prospects for the future. Initiated by Dr. Way and continued by me and with support of your officers, a relationship was established with the Deans of the Medical Schools of this State. Doctor Ted Cooper, Dean of Cornell University Medical School and Vice-President of the Associated Medical Schools of New York, was most cooperative. Despite his resignation, we intend to strengthen this contact. The medical educators are more and more often facing the same problems we have faced for some time, and mutual understanding and cooperative effort will be helpful to both groups.

In a similar vein, we are following the lead of the AMA and have contacted the major industries and businesses in the State to work out programs and a spirit of copperation that will be of benefit to both parties. We foresee that this approach will aid in controlling cost and yet maintain and even increase quality of health care provided employee groups. The initial meetings have been very successful, and developments will be reported in the future.

At this, the end of my term in office, I am still convinced that many of the problems that have developed between the public perception of the physician and his role can be corrected by a more humanistic and personal attitude on the part of the physician in his relationship with his patient. I must repeat from my speech last year that science and the scientific approach are with us to stay, but, they must be tempered by the man that employs them. We are dealing with human beings like ourselves, and a little sympathy, understanding, and perhaps a little more of our time will make all of us better physicians.

In closing I would like to express my sincere appreciation of the support I have received from Ralph Schwartz, George Way, Milton Rosenberg, John Finkbeiner, Don Fager, and our very excellent staff. There is no way I could have functioned without these marvelous people.

Finally I can in no way indicate my depth of feeling when I consider that this is the last meeting of the House of Delegates at which our beloved Henry Fineberg, will be present as our Executive Vice-President. How can words describe the intensity, the dedication, the total unselfish concern for our best interests with which Henry has served our Society. His total being, his intellect and, yes, his love has been directed toward this organization and every doctor in this State. Please: All stand and indicate our feelings for our most esteemed and beloved member.

Respectfully submitted,
G. Rehmi Denton, M.D., *President*

■

⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman.*

Your reference committee would like to commend the President on a thorough, comprehensive report of the Society's activities for the past year.

⟹ Your reference committee recommends that the report of the President be filed for information.

⟹ . . . *The report of the President was* **FILED FOR INFORMATION** . . .

SECRETARY (ANNUAL)

To the House of Delegates, Ladies and Gentlemen:

The Secretary reports as follows for the year 1979–1980.

House of Delegates. An edited version of the minutes of the 1979 House of Delegates' meeting was transmitted to the New York State Journal of Medicine and was published in the February 1980 issue, Vol. 80, No. 3. Verbatim minutes of the 1979 annual meeting of the House are on file at the headquarters office. Matters referred by the House of Delegates to the Council were reported to the Council by the Secretary in October 1979. Instructions of the House of Delegates were referred by the executive vice-president to the appropriate officers, committee chairmen, division directors, and other persons. A "Resume of Instructions from the 1979 House of Delegates and Actions Thereon by the Council, Board of Trustees, Executive Committee, Officers, Council Committees, and Governmental Agencies" is being prepared and will be presented to the 1980 House of Delegates. It will record the final disposition of the instructions of the House as reported at the time of preparation of the annual reports.

Council, Executive Committee, and Board of Trustees. The Secretary has sent notices of the meetings of the Council, the Board of Trustees, and the Executive Committee and has also reported Executive Committee actions to the Council.

Membership. At its meetings in October and November, 1979, and January, February, March, April, May, and June, 1980, the Council approved requests by county medical societies, presented by the Secretary, for remission of dues of 154 members because of illness, financial hardship, and military service. Membership figures for the period ending August 31, 1980, will be presented in the supplementary report. They will reflect any additional dues remissions approved by the Council in September 1980, as well as the 154 mentioned above.

From the October, 1979, through June, 1980, the county medical societies submitted, and the Secretary presented to the Council, the names of 226 applicants for election to life membership, and the Council elected them at the meetings of October and November, 1979, and January, February, March, April, May, and June, 1980. The list of life members elected during the above stated period follows:

Lauren V. Ackerman, Setauket
Solomon Adelman, Roslyn Estates
William A. Ahroon, Clifton Springs
Pasquale Ambrosio, Flushing
John V. Anderson, Delevan
Theophil Artemowych, Rochester

James F. Bagg, Pelham
John W. Banzer, Jr., Rockville Centre
Leonard J. Barron, Binghamton
Biagio Battaglia, Brooklyn
George J. Bendo, Neponsit
Abraham Berens, Brooklyn
Ralph Berk, Brooklyn
Jack Black, New York
Werner Blade, New York
Miriam N. Bloch, The Bronx
Maurice Bornstein, Brooklyn
Nathaniel J. Breckir, New York
Walter Brinitzer, New York
George Brown, Bronxville
Selma Buchbinder, Rockville Centre
William J. Burke, Tarrytown
Lucius H. Bugbee, Jr., Lakewood

Gilbert M. Campbell, East Hampton
Francis A. Cannella, Syracuse
Lawrence V. Casamas, Middle Island
Edwin A. Chasnow, Great Neck
Norman Chassin, Kenmore
Robert O. Christman, Bronxville
John Clarke, Buffalo
Jeff J. Coletti, Old Westbury
David D. Colucci, Webster
Anthony V. Condello, Brocklyn
Henry S. F. Cooper, New York
Edwin I. Corbin, Jamaica
Arthur S. Coriale, Utica
George F. Cunningham, Sayville
Earland Cyrus, Brooklyn

Louis J. Danish, Binghamton
Donald A. Davis, New York
Carl S. De Lucia, Troy
Aron J. Deutscher, The Bronx
Joseph R. De Vita, Brewster
Costabile Di Lorenzo, The Bronx
Joseph J. Dolgow, Douglaston
Nathan Drezner, Long Island City
Elmer L. Du Bois, Sarasota, Fla.

Norman Egel, Canandaigua
Richard Emmet, Brookville
Edward H. Eppers, Williamsville
Lawrence Essenson, New York

William B. Falvo, Utica
Samuel Feinberg, Port Jefferson
Gerald Flaum, Newburgh
Robert A. Fox, Ardsley
Samuel B. Frank, Hartsdale
Leo D. Freydberg, Hollywood, Fla.
John Frosch, Brooklyn
Charles M. Furtherer, Rochester

Lila J. Gairns, Merrick
Robert Geiger, North Syracuse
Anthony J. Giambrone, Rochester
Seymour Glaser, Rego Park
Martin Z. Glynn, Syosset
Irwin Goldberg, West Palm Beach, Fla.
Jacob Goldman, Forest Hills
Lester B. Goldstein, Whitestone
Wolf Goldstein, New York
Frederick Gordon, The Bronx
Hugo Gottlieb, Forest Hills
Henry A. Gozan, Great Neck
Milford M. Greenbaum, Poughkeepsie
Stanley S. Greenfield, Brooklyn
Frank A. Guarino, Brooklyn
David Gutman, Eastchester

Donald D. Harman, New York
Arthur H. Hartley, Lake Success
Myron Herman, The Bronx
Joseph W. Hewett, Amherst
Frederick F. Howatt, Watertown
Jacob Hurowitz, New York City

Salvatore Invidiata, Brooklyn

Charles R. Jaffe, Brooklyn
Harry Jasper, Albany

Abraham Kahane, The Bronx
John J. Kalamarides, Syracuse
J. Harry Katz, Naples, Fla.
A. Stanley Kaye, New York
Edward A. Kent, Brooklyn
Israel Kesselbrenner, New York
Thomas F. Kilcourse, West Islip
Frederick H. King, New York
Aaron H. Kleiman, Pompano Beach, Fla.
Jerome C. Klein, New York
Manuel Kogan, Elmhurst
Leo E. Kopec, Buffalo
Ali D. Koprenska, Woodbury
Harold Koretz, Avoca
Robert B. Kotty, New York
Samuel L. Kountz, Brooklyn
Ruth Krauss, Kenmore

Leonard C. Lang, Delmar
Martin Langsam, Hallandale, Fla.
Sanford M. Langsam, Tamarac, Fla.
G. Emerson Learn, Mt. Morris
Alexander Leavitt, West Hempstead
Morris Leider, New York
Harold H. Lent, New York
Frank G. Leone, Utica
Theodore Leshner, Brooklyn
Tsi Gziou Li, Staten Island
Serrie R. Lico, Pelham
Benjamin Lipton, Poughkeepsie
Harold J. Livingston, Lake Worth, Fla.
Alexander B. Lukas, New York

Saul Machover, Great Neck
Maurice L. Malins, New York
Bernard L. Maller, Jamaica
David Marcus, Brooklyn
Max Maron, Brooklyn
Leonard V. Marrone, Utica
Louis E. Marshall, Great Neck
Philip Marshall, Flushing
Philip L. Masor, Great Neck
Murray L. Meiselman, Brooklyn
Anthony Meloro, Binghamton
Frank Meola, Syracuse
Benjamin M. Miller, East Williston
Daniel J. Moriarty, Delmar
Zena L. W. Morris, New York

Leon Nabel, Wading River
Aron Nagler, Brooklyn
Ralph S. Nedell, Brooklyn
Donald J. Nenno, Lake View
Ernest B. Newman, Sarasota, Fla.

Hans Oppenheimer, Forest Hills
Lazarus A. Orkin, Miami, Fla.

Vincent J. Palmeri, Newark
Vincent J. Panettiere, Jackson Heights
Frank J. Parnes, Jamaica
Joseph G. Paterno, Brooklyn
Leon G. Payes, Binghamton
Anna W. Perkins, Westerlo
Gizella Perl, Herzlia, Israel
William W. Pierce, Gasport
Doris M. Pieri, Corning
Fellowes M. Pruyn, Mt. Kisco

Leonard S. Rakow, New York
Arthur Rao, Brooklyn
George M. Raus, Fayetteville
Elise L. Renning, Bronxville
Herbert Ribner, West Hempstead
Iris T. Richards, Hempstead
Herman A. Robbins, Pompano Beach, Fla.
Julius Rock, Rochester
Gene S. Rogati, Valatie
Barnet I. Romm, Brooklyn
Harold Rosenberg, Santa Monica, Ca.
Joseph F. Rudmin, Plattsburgh
Arland D. Ryan, Norwick

Joseph R. Saab, Lackawanna
Nathaniel Safran, Lake View
Herman Samuels, Long Island City
Marie N. Sathmary, Brooklyn
Albert J. Schein, New York
Daniel E. Schneider, New York
Leo Schneller, New Rochelle
Leonard Schwarz, Brooklyn
William A. Schwarz, Staten Island
Archie Scribner, Chappaqua
David J. Scuccimarra, Peekskill
Fayette D. Severance, Jamesville

David R. Shapiro, Newburgh
Milton Shields, Carmel
Irving Silver, Brooklyn
Max Singer, Irvington
Louis R. Slattery, New York
Jean C. Smith, Chenango Bridge
Arthur R. Sohval, New York
Lynman J. Spire, Fayetteville
Charlotte F. Springer, New York
Jack J. Squire, New York
Clyde E. St. Hill, Brooklyn
Rudolf H. Steinharter, Hempstead
Albert B. Stewart, New York
David S. Stewart, Rochester
Harry Strongin, New York
James F. Sullivan, New York

Sidney L. Tamarin, Ithaca
Robert B. Tator, Boynton Beach, Fla.
David B. Teitelbaum, Mt. Vernon
Michael Temchin, Florida
Irving Terman, Fort Lee, N.J.
Max Thaler, Parishville
Sheppard C. Thierman, Massapequa
Alphonse E. Timpenelli, Jackson Heights
Clara Torda, New York
Herbert F. Trapl, Rome
Arthur M. Tunick, Englewood, N.J.
Thomas E. Turner, Syracuse

Max G. Verlot, Rego Park
Francis F. Viglione, Brooklyn
James I. Vivona, Ramsey, N.J.
George Vogel, Croton-on-the-Hudson
Walter Vogel, Palo Alto, Ca.
Caesar A. Volpe, The Bronx

Samuel Waldman, Floral Park
William V. Wax, Catskill
Henriette L. Wayne, New York
Howard P. Webb, Utica
Samuel Weinbaum, New York
Milton S. Weinberg, Port St. Lucie, Fla.
Harry S. Weiss, Highland Beach, Fla.
Paul Weiss, Woodside
Bernard Wells, New Hartford
Leopold H. Wienick, New York
Paul F. Willwerth, Montour Falls
Lawrence F. Withington, Watertown
Tamara P. Wittkugel, Amherst
Russell H. Wixson, Niagara Falls
Herman Wolff, Forest Hills

George Yessin, Bayside
Albert M. Yunich, Guilderland

Helen Zagoloff, Spring Valley
David E. Zehner, The Bronx
Doris B. Zenger, East Hampton

The Secretary's supplementary report will list life members elected in September, 1980.

The Secretary has attended meetings of the Council, Executive Committee, and the Board of Trustees, as well as meetings of the Professional Medical Liability Insurance and Defense Board. As an ex-officio member of all committees I attended many committee meetings throughout my tenure.

Other Matters. As required by the Bylaws, the Secretary has kept minutes of the House of Delegates, the Council, the Executive Committee, the Board of Trustees, and the Judicial Council, including verbatim records of the proceedings of the House of Delegates and the Judicial Council and a tape recording of the proceedings of the Council, and has also kept files of the correspondence resulting from the meetings of the House of Delegates, the Council, the Executive Committee, and the Board of Trustees. Records and correspondence relating to actions of the Judicial Council are kept in the office of the general counsel. The Secretary is custodian of the seal of the Society and has it affixed to appropriate documents.

Respectfully submitted,
Victor J. Tofany, M.D., *Secretary*

SECRETARY (SUPPLEMENTARY)

To the House of Delegates, Ladies and Gentlemen:

Membership. At the September, 1980, Council meeting, remission of 1980 dues was granted to 26 active members because of illness, financial hardship, and military service.

The following 17 persons were elected by the Council as life members in action taken at the Council meeting in September, 1980.

Herbert Berger, Staten Island
Nehoray Boghrati, Far Rockaway

Helene Holtz, Mattituck

Jules L. Karpas, Brooklyn

Jacob C. Lambert, Plainview
Armando J. Lauritano, The Bronx

Constantine J. Papastrat, Poughkeepsie

John A. Rodger, West Monroe
Sidney Rubin, Fairport
Nathan Ruby, Brooklyn

Mardoqueo I. Salomon, New York
James L. Schiuma, Brooklyn
Henry C. Stoll, Brooklyn
George M. Suter, Port St. Lucie, Fla.

Helene C. R. Young, Williamsville

Constantino Zaino, Tuckahoe
Dominick A. Zurlo, Glens Falls

Our Physicians Records Department has supplied the following year-end figures:

1978 Membership (12-31-78)	26,350	
1979 New Members	715	
1979 Reinstated & Reelected Members	131	
		27,196
1979 Deaths	349	
1979 Resignations	422	− 771
		26,425
1979 Delinquent Members (Dues)	327	− 327
1979 Total Membership (12-31-79)		26,098

Remission of dues was voted for 168 members due to illness, financial hardship, or temporary military service.

Membership totals for the years since 1969 have been as follows:

	Active Members	Life Members*	Total
1969	24,732	2,432	27,164
1970	24,261	2,791	27,052
1971	23,961	3,071	27,032
1972	23,988	3,257	27,245
1973	23,752	3,469	27,221
1974	24,057	3,581	27,638
1975	23,543	3,743	27,286
1976	22,752	3,903	26,655
1977	22,649	4,035	26,684
1978	22,071	4,279	26,350
1979	21,678	4,420	26,098

* Life members are not subject to Medical Society of the State of New York dues and assessments, but are accorded all the rights and privileges of active membership.

Respectfully submitted,

Victor J. Tofany, M.D., *Secretary*

■

Report of the Reference Committee on Reports of Officers: The following report was presented by John T. Prior, M.D., *Chairman.*

Your reference committee notes a decrease in the membership. We note that the increase in life members has been modest, numbering approximately 200 per year. However, in 1979 there were 422 resignations and 327 members who were delinquent in payment of dues, resulting in a loss of 749 members.

The committee suggests that the Society review the age and geographic distribution of those members to explore what efforts should be taken to encourage them to rejoin the Society.

⇒ Your reference committee recommends that the annual and supplementary reports of the Secretary be filed for information.

⇒ . . . *The annual and supplementary reports of the Secretary were* ***FILED FOR INFORMATION*** . . .

TREASURER

To the House of Delegates, Ladies and Gentlemen:

The Treasurer would like to report on some of the facts contained in the financial statements of the certified public accountants, Fox and Company, for the year ended, December 31, 1979, as presented by the Board of Trustees.

The General Operating Fund, for the year ended, December 31, 1979, had an excess of income over expenditures of $320,072, which gives us a new unrestricted General Operating Fund surplus of $1,936,627. A more detailed explanation of the operations for 1979 will be included in the report of the Budget and Finance Committee, of which I am a member.

Again, I must caution you that although our surplus appears to be sound, it still falls short by approximately $200,000, as suggested by advocates of sound financial policies (this policy is, that your surplus is equal to ½ of your expected expenditures for the coming year.)

It must be pointed out that, while the above figures appear to be impressive, in 1979 we lost approximately 500 dues-paying members. This gives us a total decrease of $100,000 in dues income, which has to be a cause for concern in future fiscal planning. However, our outlook for 1980 is still optimistic, our General Operating Fund should show an excess of income over expenditures.

The Treasurer would like to thank Henry I. Fineberg, M.D., Executive Vice-President, and Philip G. Keating, Director — Division of Finance, for their daily management of income and expenditure factors in a sound, competent manner.

Respectfully submitted,

Warren A. Lapp, M.D., *Treasurer*

■

⇒ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman.*

Your committee commends the Treasurer for his report.

We note with regret that the decrease in dues paying members in 1979 resulted in a total decrease of $100,000 in dues income.

⇒ Your reference committee recommends that the report of the Treasurer be filed for information.

⇒ . . . *The report of the Treasurer was* ***FILED FOR INFORMATION*** . . .

BOARD OF TRUSTEES

To the House of Delegates, Ladies and Gentlemen:

The Board of Trustees consists of the following members:

Lynn R. Callin, M.D., *Chairman*	Monroe
George L. Collins, Jr., M.D.	Erie
Paul M. DeLuca, M.D.	Broome
Arthur H. Diedrick, M.D.	Westchester
Ralph S. Emerson, M.D.	Nassau
David Kershner, M.D.	Kings
Bernard J. Pisani, M.D.	New York

The meeting time of the Board of Trustees was changed to follow the Executive Committee meetings. This change in time allows more time for discussion and presentation of items submitted to the Board.

The estimated budget for 1980, as submitted by the Budget and Finance Committee, was reviewed and approved on November 15, 1979. Revisions of this at March 31, 1980 and June 30, 1980, were also approved.

The annual report of the certified public accountants, Fox and Company, for the calendar year 1979, was presented to the State Society in June, 1980. This report follows further on and forms an integral part of the Board of Trustees' report to the House of Delegates, as prescribed by our Bylaws. Some of the highlights of this report are the following: The format of our report was changed significantly, the reason for this was that Fox and Company had to make these changes in order to conform with the changing standards in their field; the reports show that the unrestricted general operating fund balance now stands at $1,936,627, an increase of $320,072. A more detailed explanation of 1979 operations will be included in the annual report of the Budget and Finance Committee.

An important additional item in the report is the establishment of a Plant Fund, which indicates depreciation of building and equipment. This was done, once again, to conform with the standards of the accounting profession. The depreciation is just a bookkeeping entry and has no effect on the operations of the Society.

The other funds of significance to report on are the Special (malpractice) Fund and the Legal Fund. The surplus balances at December 31, 1979 are $772,858, and $964,211, respectively. The future disposition of these funds cannot be determined, due to the nature of these funds.

Some significant activities since the annual meeting in September, 1979, were as follows:

Investment Committee. Dr. Arthur Diedrick was reappointed chairman of this committee, at the organizational meeting of September 6, 1979. Under his direction and with the advice of our investment advisor, Bankers Trust Company, full advantage was taken of the high interest rates offered by money market certificates and short-term securities. Interest earnings for the General and several other funds are listed below for the year ended 1979:

General	$283,700
Special	$ 67,017
Legal	$ 73,872

Employee Benefits Plan Committee. Dr. Paul DeLuca was reappointed chairman of this committee, and under his direction and with the advice of Segal Associates, a thorough review of the employee pension plan was undertaken and completed. This significantly improved the pension plan, bringing it into conformity with that of major industries. An additional change of the pension plan is that now the Society will fund it directly. A Thrift Savings Plan was also introduced, to increase the employees' benefits through voluntary participation. A review of other benefits, including health and life insurance, was also completed.

Action on Various Fiscal Matters During the Course of the Year.

a.) At the meeting of October 25, 1979, a Council approved measure to pay full expenses of one medical student to the 1980 interim and annual meetings of the AMA, was approved with a fiscal note of up to $2,000. Also approved was that the Society would extend an honorarium of $100 to a medical student from each medical school of the State of New York, to attend the annual meeting of the Society.

b.) At the meeting of November 15, 1979, approval was given to the following:

1.) The revised budget of 1979, and the estimated budget of 1980.

2.) The site and date for the Scientific Meeting to be held June 26–28, 1981, at the Niagara Falls Hilton Hotel was approved in principle.

3.) To participate in an American Medical Association program to improve medical care and health services in jails, with a fiscal note of up to $4,365.

c.) At the meeting of January 17, 1980, approval was given to the following:

1.) A pilot workshop for key physicians to represent medicine with the news media, with a fiscal note of up to $4,500.

2.) A pilot workshop to promote mutual understanding between the news media and the medical profession, with a fiscal note of up to $5,500.

d.) At the meeting of March 19, 1980, approval was given to the following:

1.) A meeting on medicine and religion to be held October 19, 1980, with a fiscal note of up to $3,000.

2.) Secrephone service for the annual meeting, with a fiscal note of up to $2,585.

3.) Increase in mileage reimbursement for personal automobiles from 20¢ to 22¢ per mile.

e.) At the meeting of May 21, 1980, the Board formally approved the HR-10 Keogh Plan for Society members with Calvin Bullock, Ltd., as investment advisor, Chemical Bank as trustee, and Shearson Loeb Rhoades as coordinator.

f.) At the meeting of June 25, 1980, the following was approved:

1.) Employee pension and Thrift Savings Plan, prepared with the advice of Segal Associates.

2.) Extension of the accidental death and dismemberment insurance to cover all committee members while on official Society business, with limits of $300,000 per individual, and an aggregate of $4,000,000.

3.) Contracts for typesetting and bookbinding for the New York State Medical Directory.

4.) The Trust and Joinder Agreement for professional corporations to enroll under the pension program for members of the Society.

5.) Appointment of Henry I. Fineberg, M.D., as Executive Vice-President Emeritus and consultant to MSSNY, effective January 1, 1981.

In conclusion, your Chairman is most grateful to all the individual members of the Board of Trustees, for their valuable time and assistance during the past year. Sincere gratitude is expressed to Henry I. Fineberg, M.D., Executive Vice-President, for his knowledgeable advice, which the Board of Trustees has always taken under consideration.

I would, also, like to express my gratitude to Philip G. Keating, Director, of the Division of Finance; J. Richard Burns, J.D., General Counsel; and Mrs. Irma Erickson, Executive Associate, for all their help in preparing information and reports crucial to the Board of Trustees in arriving at decisions regarding fiscal matters.

Respectfully submitted,

Lynn R. Callin, M.D., *Chairman*

REPORT OF CERTIFIED PUBLIC ACCOUNTANTS

To the Board of Trustees
Medical Society of the
State of New York
Lake Success, New York

We have examined the balance sheet of the Medical Society of the State of New York as of December 31, 1979 and the related statements of revenue, expenses, and changes in fund balances and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements designated above present fairly the financial position of the Medical Society of the State of New York at December 31, 1979, and the results of its operations and changes in its fund balances and changes in its financial position for the year then ended, in conformity with generally accepted accounting principles which, except for the change with which we concur, of the inclusion of depreciation as described in Note 2 to the financial statements, have been applied on a basis consistent with that of the preceding year.

The accompanying supplementary information, while not necessary for a fair presentation of financial position, results of operations or changes in fund balances and changes in financial position, has been examined and, in our opinion, is fairly stated in all material respects in relation to the financial statements taken as a whole.

Fox & Company.

Hempstead, New York
April 11, 1980

MEDICAL SOCIETY OF THE STATE OF NEW YORK
BALANCE SHEET
December 31, 1979

		Restricted Funds				
ASSETS	General Fund	Special Fund	Bernstein Memorial Fund	Bernstein Award Fund	Plant Fund	Endowment Fund
Cash (includes time deposits of $172,485)	$ 219,938	$ 14,591	$ 1,732	$60,985	$ —	$39,624
Investments, at cost (approximates market)	2,829,647	730,263	105,123	—	—	—
Accounts receivable, net of allowance for doubtful accounts of $1,594	25,483	—	—	—	—	—
Accrued interest receivable	80,894	32,433	8,020	2,287	—	868
Due from other funds	12,755	—	—	—	—	—
Inventories	96,932	—	—	—	—	—
Prepaid expenses	35,345	—	—	—	—	—
Deposits	10,187	—	—	—	—	—
Employee advances	16,250	—	—	—	—	—
Other assets	4,402	—	—	—	—	—
Property and equipment, at cost:						
Land	—	—	—	—	762,197	—
Building	—	—	—	—	3,556,217	—
Furniture and equipment	—	—	—	—	632,250	—
	—	—	—	—	4,950,664	—
Less accumulated depreciation	—	—	—	—	797,287	—
	—	—	—	—	4,153,377	—
Total assets	$3,331,833	$777,287	$114,875	$63,272	$4,153,377	$40,492
LIABILITIES AND FUND BALANCES						
Accounts payable and accrued expenses	$ 228,408	$ —	$ —	$ —	$ —	$ —
Deferred membership dues	124,437	—	—	—	—	—
Due to other funds	—	4,429	771	6,355	—	1,200
Other liabilities	43,661	—	—	—	—	—
Total liabilities	396,506	4,429	771	6,355	—	1,200
Fund balances:						
Unrestricted:						
Designated by board for:						
Repair and replacement	34,489	—	—	—	—	—
Legal assistance	964,211	—	—	—	—	—
Undesignated	1,936,627	—	—	—	—	—
Restricted	—	772,858	114,104	56,917	—	—
Net investment in plant	—	—	—	—	4,153,377	—
Endowment	—	—	—	—	—	39,292
Total fund balances	2,935,327	772,858	114,104	56,917	4,153,377	39,292
Total liabilities and fund balances	$3,331,833	$777,287	$114,875	$63,272	$4,153,377	$40,492

The accompanying notes are an integral part of the financial statements.

MEDICAL SOCIETY OF THE STATE OF NEW YORK
STATEMENT OF REVENUE, EXPENSES, AND CHANGES IN FUND BALANCE
Year ended December 31, 1979

		Restricted Funds				
	General Fund	Special Fund	Bernstein Memorial Fund	Bernstein Award Fund	Plant Fund	Endowment Fund
Revenue:						
Dues (net of refunds to counties as part of a dues incentive plan in the amount of $519,800)	$3,659,593	$ —	$ —	$ —	$ —	$ —
Advertising income	212,979	—	—	—	—	—
Interest	362,702	67,017	10,122	5,734	—	3,434
Directory circulation	54,872	—	—	—	—	—
Journal circulation and reprints	22,594	—	—	—	—	—
Booth rentals — annual convention	38,460	—	—	—	—	—
Dues collection fee — AMA	16,008	—	—	—	—	—
Other	26,105	350	—	—	—	—
Total revenue	4,393,313	67,367	10,122	5,734	—	3,434
Expenses:						
Program services:						
Membership services	1,210,170	566	2,117	2,097	24,060	—
Scientific and educational activities	211,378	—	—	—	990	—
Conventions and meetings	332,716	—	—	—	6,351	—
Scientific publications	678,099	—	—	—	3,561	—
Communications	421,421	—	—	—	2,062	—
Total program services	2,853,784	566	2,117	2,097	37,024	—
Supporting services						
General administration	1,009,090	2,177	364	70	80,364	—
Total supporting services	1,009,090	2,177	364	70	80,364	—
Total expenses	3,862,874	2,743	2,481	2,167	117,388	—
Excess (deficiency) of revenue over expenses	530,439	64,624	7,641	3,567	(117,388)	3,434
Fund balances at beginning of year:						
As previously reported	2,415,740	708,234	106,463	53,350	4,939,812	35,858
Accumulated depreciation through December 31, 1978	—	—	—	—	(679,899)	—
As restated	2,415,740	708,234	106,463	53,350	4,259,913	35,858
	2,946,179	772,858	114,104	56,917	4,142,525	39,292
Transfers:						
Equipment acquisitions	(10,852)	—	—	—	10,852	—
Fund balances at end of year	$2,935,327	$772,858	$114,104	$56,917	$4,153,377	$39,292

The accompanying notes are an integral part of the financial statements.

MEDICAL SOCIETY OF THE STATE OF NEW YORK
STATEMENT OF CHANGES IN FINANCIAL POSITION
Year ended December 31, 1979

		Restricted Funds				
	General Fund	Special Fund	Bernstein Memorial Fund	Bernstein Award Fund	Plant Fund	Endowment Fund
Resources provided:						
Excess (deficiency) of revenue over expenses	$530,439	$64,624	$ 7,641	$3,567	$(117,388)	$3,434
Items that do not use (provide) resources:						
Depreciation					117,388	
Decrease/increase in amount due from/to other funds	3,511	1,841		2,167		
Increase in accounts payable, accrued expenses and other liabilities	9,598	(129)				
Increase in deferred membership dues	57,257					
Decrease in investments			2,287			
Total resources provided	600,805	66,336	9,928	5,734	—	3,434
Resources used:						
Increase in investments	474,494	53,074				
Increase in accounts and accrued interest receivable	15,314	14,931	2,500	642		200
Increase in inventories	32,451					
Increase in prepaid expenses	3,181					
Increase in deposits, advances and other assets	8,022					
Decrease in amount due to other funds			7,519			
Total resources used	533,462	68,005	10,019	642	—	200
Transfers:						
Equipment acquisitions	(10,852)					
Increase (decrease) in cash	$ 56,491	$ (1,669)	$ (91)	$5,092	$ —	$3,234

The accompanying notes are an integral part of the financial statements.

MEDICAL SOCIETY OF THE STATE OF NEW YORK
Notes to Financial Statements
December 31, 1979

1. SUMMARY OF ACCOUNTING POLICIES

This summary of accounting policies of the Medical Society of the State of New York (Society) is presented to assist in understanding the Society's financial statements. These accounting policies conform to generally accepted accounting principles which, except for the inclusion of depreciation as described in Note 2, have been consistently applied in the preparation of the financial statements.

Federal income taxes

The Society is a nonprofit organization as defined in Section 501(c)(6) of the Internal Revenue Code and is exempt from Federal income taxes except on unrelated business income.

Investments

Investments are valued at cost. Gains or losses are recognized when the investment is sold. Income is recorded on the accrual basis.

Inventories

Inventories which consist of paper for printing of publications and supplies are valued at average cost.

Property and equipment

Property and equipment are recorded in the Plant Fund at cost. Major additions and improvements are purchased by the General Fund and transferred to the Plant Fund. Maintenance and repairs that do not improve or extend the life of the assets are charged to expense. Depreciation of building and equipment is provided over the estimated useful lives of the respective assets on a straight-line basis.

Employee retirement plan

The Society has a noncontributory employee retirement plan which covers substantially all employees. Pension costs charged to operations represent actuarially estimated amounts necessary to fund the current service costs of pensions and prior service obligations over approximately 30 years.

Membership dues

Membership dues are recognized as revenue in the applicable membership period. Dues in arrears are recognized when received.

2. PROPERTY AND EQUIPMENT

For the year ended December 31, 1979, the Society has adopted the generally accepted accounting principle of depreciating its fixed assets. The adjustment to the beginning Plant Fund balance, in the amount of $679,899, represents depreciation that would have been charged as expense through December 31, 1978. The current year's depreciation in the amount of $117,388, is recorded as an expense in the Plant Fund.

A summary of property and equipment as of December 31, 1979 and the estimated lives used in the computation of depreciation is as follows:

	Estimated life (years)	Cost
Land	—	$ 762,197
Building	50	3,556,217
Equipment	5–20	632,250
		4,950,664
Less accumulated depreciation		797,287
		$4,153,377

3. EMPLOYEE RETIREMENT PLAN

The Society maintains a noncontributory retirement plan for the benefit of its employees. To be eligible to participate, employees must be 25 years of age but less than 65 and have had completed 12 months of continuous employment with the Society. The annual charge to operations includes the normal cost of the plan (the amount to be contributed during a year to fund the estimated cost of the plan attributable to operations of that year) plus an annual installment payment required to amortize prior service costs over the remaining 18 years of an original 30 year period. In 1979, $149,066 was charged to operations. The estimated unfunded prior service cost at the last valuation date (December 31, 1978) was $561,200. The actuarially computed value of vested benefits for the plan at the last valuation date (December 31, 1978), exceeded the total of the pension fund by approximately $113,000.

4. FEDERAL AND STATE INCOME TAXES

The Society has charged against current operations Federal and New York State taxes of $3,324 and $2,429, respectively, on its unrelated business income for the year ended December 31, 1979. The Internal Revenue Service has examined Federal income tax returns through 1975.

5. SPECIAL FUND

A Special Fund was created in 1975 to pursue an equitable malpractice program. The fund was financed by assessing each active member of the Society $100.

The Council of the Medical Society of the State of New York appointed a subcommittee to plan and implement the program. The special assessment is kept in a separate fund and expenditures are approved by the Board of Trustees of the Society.

The Council plans to continue the program and plans to use the unexpended special assessment balance for this purpose.

6. REAL ESTATE TAXES

The Society has been assessed annually by the Village of Lake Success, New York for real estate taxes since June 1, 1972. The amount of $33,333 was paid in 1979. The County of Nassau and the Town of North Hempstead have not assessed the Society for real estate taxes.

7. LEGAL FUND

The Legal Fund, which was created by the House of Delegates at the 1977 annual meeting, is to be used for activities which necessitate the use of legal assistance for the members of the Medical Society. The fund was financed by allocating a portion of the dues income for legal assistance.

SUPPLEMENTARY INFORMATION

Summary of investments held at December 31, 1979

	Interest rate (percentage)	Maturity date	Par value	Cost	Market value
General Fund:					
U.S. Government obligations:					
U.S. Treasury bills	—	4/1/80	$110,000	$ 100,449	$ 106,626
U.S. Treasury bills	—	5/27/80	150,000	136,426	142,618
U.S. Treasury notes	9.875	12/31/80	100,000	99,891	98,438
U.S. Treasury notes	12.125	11/30/81	100,000	99,801	101,343
U.S. Treasury notes	9.25	5/15/82	200,000	200,265	193,626
Federal agencies:					
Federal Home Loan Banks	9.75	8/25/80	100,000	100,031	98,094
Federal Home Loan Banks	9.55	5/26/81	200,000	200,438	194,126
Federal Home Loan Banks	11.25	8/25/82	100,000	101,281	100,813
Federal Home Loan Banks	11.25	8/25/82	160,000	162,050	161,300
Twelve Federal Land Banks	7.75	1/21/80	50,000	49,953	49,812
Twelve Federal Land Banks	7.75	1/21/80	50,000	49,953	49,812
Twelve Federal Land Banks	8.00	10/20/82	100,000	99,922	92,875
Federal Farm Credit Banks	10.00	7/20/81	100,000	100,141	98,063
Federal Farm Credit Banks	10.20	5/1/80	130,000	130,040	128,659
Federal Farm Credit Banks	10.90	4/20/83	100,000	100,719	100,750
Federal Farm Credit Banks	9.50	1/23/84	100,000	100,344	96,375
Federal Farm Credit Banks	10.00	7/20/81	200,000	202,125	196,126
Federal Farm Credit Banks	10.20	5/1/80	15,000	15,005	14,845
Federal Farm Credit Banks	8.05	3/1/83	100,000	99,891	92,500
Federal Farm Credit Banks	10.25	1/2/80	50,000	50,062	50,000
Federal National Mortgage Association	10.00	4/10/81	200,000	200,375	196,062
Federal National Mortgage Association	9.25	10/10/83	100,000	100,000	94,500
Federal National Mortgage Association	9.375	9/10/81	100,000	99,922	96,594
Federal National Mortgage Association	7.875	10/13/81	100,000	99,563	93,968
Miscellaneous:					
C/D Toronto Dominion	13.00	1/2/80	131,000	131,000	131,000
				$2,829,647	$2,778,925
Special Fund:					
U.S. Government obligations:					
U.S. Treasury bills	—	3/4/80	$205,000	$187,392	$200,641
Federal agencies:					
Federal Home Loan Banks	11.25	8/25/82	120,000	121,462	120,975
Federal Farm Credit Banks	10.00	7/20/81	258,000	260,580	253,002
Federal Farm Credit Banks	10.20	5/1/80	15,000	15,005	14,845
Federal Farm Credit Banks	10.90	4/20/83	120,000	120,863	120,900
Federal National Mortgage Association	9.375	9/10/81	25,000	24,961	24,148
				$730,263	$734,511
Bernstein Memorial Fund:					
U.S. Government obligations:					
U.S. Treasury bills	—	3/4/80	115,000	$105,123	$112,555

⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Board of Trustees be filed for information.

⟹ . . . *The report of the Board of Trustees was* **FILED FOR INFORMATION** . . .

BUDGET AND FINANCE (ANNUAL)

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Budget and Finance are as follows:

Walter T. Heldmann, M.D., *Chairman*	Richmond
Lynn R. Callin, M.D.	Monroe
George L. Collins, Jr., M.D.	Erie
John A. Finkbeiner, M.D.	New York
Carl Goldmark, Jr., M.D.	New York
Warren A. Lapp, M.D.	Kings

The committee is responsible for reviewing and revising the estimated budget as prepared and presented to them by the Office of the Executive Vice-President. The Committee then forwards their adjusted report to the Council, which after approval (with or without further adjustments) sends it to the Board of Trustees, which is responsible for the fiscal affairs of the State Medical Society.

Meetings were held on a quarterly basis, as has been the practice for many years. At these meetings, the Committee evaluates the actual income and expenditures for a particular period and makes necessary adjustments, based on experience, economic factors, and values.

The Committee would like to inform the House of Delegates as to the status of the General Fund at December 31, 1979. The excess of income over expenditures amounts to $320,072. This sum was made possible because of the following developments which occurred during the course of the year:

1. ***Income Section***

a.) We had anticipated that our membership dues would bring in net revenue of approximately $3,380,000, after the allocation to the Legal Fund, and the rebate to county medical societies. The actual net dues income amounted to $3,399,693, or a net excess of $19,693.

b.) Advertising income — was budgeted at $175,000. We actually received income of $196,504. This is an increase of $21,504.

c.) Interest income on investments — the original projection was $175,000. The actual interest earned was $283,000. This increase was due to the soaring interest rates in 1979, and the fact that we were able to spread out investments over a five-year period and take advantage of these interest rates.

2. ***Expenditure Section***

a.) Division of Executive Vice-President — savings occurred in the areas of payroll, "Hot Line" bulletin, and district branches annual allowance. Total savings were approximately $20,000.

b.) Division of Governmental Affairs — a total of $8,000 was saved, mainly in the areas of travel and telephone/telegraph.

c.) Division of Continuing Medical Education — a major savings of $60,000 occurred in 1979. The reason for this is due to the fact that this division was not fully implemented and the future structure of this division is still unknown.

d.) Division of Scientific Publications — printing costs of the New York State Journal of Medicine were $30,000 less than budgeted. Figures projected for such items as printing, paper, and postage are usually difficult to project because of the size of the issues of the Journal and unknown possible increases in costs and rates.

e.) Division of Medical Services — a gain of approximately $17,000 occurred in this division. The amount of $6,000 allocated for "selected economic statistics" was not expended, and a budgeted employee who was to start at mid-year was never hired.

f.) Division of Finance — there were savings in several departments, mainly in Data Processing and Physicians Records. In Data Processing, the savings were approximately $10,000, which was due to the reorganization of the department. In Physicians Records there was a savings of $43,000, which was caused in part by the reorganization of Data Processing. Other savings were in the area of the Medical Directory. This reduction was due to a change in postal rates which cut mailing costs in half.

g.) Division of Management Services — primarily because of an unfilled job, a savings of $12,000 occurred.

h.) Division of Communications — a total of $50,000 was gained in this division. The main savings was in the cost of the News of New York, the reason being the reduction in the number of inserts, and the postal increases were less than anticipated. Other areas of savings were salaries, professional relations projects, and related expenses.

i.) Committees — primarily because the budgeted figures for committees are only rough estimates, a savings of $18,000 occurred.

j.) Non-Divisional — savings of approximately $55,000 occurred in the following areas: telephone, equipment, maintenance & rental, insurance, employee benefits, membership campaign & unrelated business income tax. All these areas were based on uncontrollable factors, that are unknown at the beginning of the year. In these areas, the actual expenses were lower than the budgeted figures.

At the November 8, 1979 meeting of the Budget and Finance Committee, an estimated budget for the year 1980 was prepared. This budget was approved by the Council and the Board of Trustees. Following a quarterly meeting, after March 31 and June 30, 1980, the revised estimated budget shows that we shall have a surplus for 1980 amounting to $67,210 (See Table I following). The Administration is confident that we will at least meet this surplus, and hopefully an even higher surplus. We concur with that opinion.

In a supplementary report, the Committee will present an estimated budget for the calendar year 1981, with recommendations as to how we should proceed with our financial planning for the coming year.

The Chairman would like to commend Henry I. Fineberg, M.D., Executive Vice-President, and Philip G. Keating, Director of the Division of Finance, for their prudent management of the budgetary programs.

Respectfully submitted,

Walter T. Heldmann, M.D., *Chairman*

TABLE I
MEDICAL SOCIETY OF THE STATE OF NEW YORK
Revised Estimated Budget @ 6/30/80

INCOME	Revised Estimated Budget @ 3/31/80	Received to 6/30/80	Revised Estimated Budget @ 6/30/80
Dues	4,160,000	2,080,000	4,160,000
Less: Allocated for Legal Fund	−260,000	−130,000	−260,000
Dues for general operating purposes	3,900,000	1,950,000	3,900,000
Journal Advertising	175,000	96,694	175,000
Journal Circulation	3,000	1,705	3,000
Journal Reprints	18,000	12,970	18,000
Medical Directory — Sales	98,000	11,183	98,000
Scientific Convention — Exhibit Rentals	26,000	16,540	16,540
Interest on Investments — General Fund	200,000	90,000	200,000
What Goes On — Subscriptions	500	138	500
Dues Collection Fee — A.M.A.	15,000	13,736	15,000
CME Hospital Survey	1,000	-0-	1,000
Computer Sales	10,000	5,059	10,000
Health Care in Correctional Institutions	2,300	1,141	2,300
Miscellaneous Income	500	288	500
Total Income	4,449,300	2,199,454	4,439,840

EXPENDITURES	Sched. No.	Revised Estimated Budget @ 3/31/80	Expended to 6/30/80	Revised Estimated Budget @ 6/30/80
Office of Executive Vice-President	1–4	554,684	272,741	593,084
General Counsel	5	121,695	59,281	121,695
Governmental Affairs	6	156,832	82,796	156,832
Insurance and Membership Benefits	7	61,966	30,653	61,966
Scientific Affairs Division	8–9	240,356	105,522	182,799
Scientific Publications Division	10	659,786	343,406	659,786
Medical Services Division	11	223,968	109,344	229,318
Finance Division	12–16	509,202	244,757	521,745
Management Services Division	17–19	239,893	107,614	239,893
Communications Division	20	448,458	209,810	448,458
Annual Meeting — House of Delegates	21	83,200	-0-	83,200
Officers, Board, A.M.A. Delegation	22	170,500	45,636	173,500
House of Delegates — Spec. Committees	23	900	524	900
Council Committees	24–25	66,250	33,878	70,650
Legislative Counsel	26	65,000	31,805	65,000
Non-Divisional	27	751,100	368,261	763,804
Total Expenditures		4,353,790	2,046,028	4,372,630
Excess of Income over Expenditures		95,510	153,426	67,210

BUDGET AND FINANCE (SUPPLEMENTARY)

To the House of Delegates, Ladies and Gentlemen:

The annual report of the Committee on Budget and Finance contained all of the deliberations since the last annual meeting of the House of Delegates in September, 1979.

The Committee subsequently has formulated a tentative projection of income and expenditures for the calendar year 1981. Table I is an estimate based upon divisional activities. Table II projects expenditures by account classification. These tables were compiled by utilizing present economic trends which, you are all aware, continue in an inflationary pattern.

The Board of Trustees and the Administration have followed through on action taken by the 1979 House of Delegates, whereby $37.50 of the $50.00 dues increase, approved in 1977, be used for operations and the balance of $12.50 be allocated to the Legal Fund. This arrangement was approved for a one-year period.

Because of present economic conditions and with no possibilities of additional revenue, your Committee has built into the tentative estimated budget for 1981 (Table I) the $12.50 per member allocated to Legal Fund in 1980, to Operating Revenue in 1981. By so doing, this increases the Operating Revenue by $260,000 and our projected deficit for 1981 would be approximately $76,500. The Committee feels then that with various savings in certain areas, we could come up with a balanced budget for 1981. We must caution the House of Delegates that, if we do not follow through with the Committee's recommendation and projected budget for 1981, there will be no alternative but to request a dues increase at this meeting. We feel that our recommendation and our projections will eliminate the need of a dues increase for 1981.

The Committee will meet sometime in November, whereby a more definitive estimated budget for 1981 will be formulated. This budget will be forwarded to the Council and Board of Trustees for their approval.

Respectfully submitted,

Walter T. Heldmann, M.D., *Chairman*

TABLE I
MEDICAL SOCIETY OF THE STATE OF NEW YORK
Statement of Budgetary & Actual Operating Income & Expenditures

	Revised Estimated Budget 1979	Received to 12/31/79	Revised Estimated Budget @ 6/30/80	Received to 6/30/80	Tentative Estimated Budget 1981
INCOME					
Dues (Net)	3,380,000	3,399,693	3,900,000	1,950,000	4,160,000
Journal Advertising	175,000	196,509	175,000	96,694	175,000
Journal Circulation	3,000	4,815	3,000	1,705	3,000
Journal Reprints	18,000	17,779	18,000	12,970	18,000
News of New York — Advertising	16,099	16,099	-0-	-0-	-0-
Medical Directory — Sales	60,000	54,872	98,000	11,183	70,000
Scientific Convention — Exhibit Rentals	37,325	38,460	16,540	16,540	20,000
Interest on Investments — General Fund	175,000	283,701	200,000	90,000	200,000
What Goes On — Subscriptions	500	372	500	138	500
Dues Collection Fee — AMA	15,258	16,008	15,000	13,736	15,000
CME Hospital Survey	1,000	1,377	1,000	-0-	1,000
Health Care in Correctional Inst.	-0-	-0-	2,300	1,141	2,300
Insurance Refund	-0-	16,444	-0-	-0-	-0-
Computer Sales	-0-	7,338	10,000	5,059	10,000
Miscellaneous Income	500	944	500	288	500
Total Income	3,881,682	4,054,411	4,439,840	2,199,454	4,675,300
EXPENDITURES		Expended To 12/31/79		Expended To 6/30/80	
Office of Executive Vice-President	366,002	346,838	593,084	272,741	602,793
General Counsel	113,649	111,154	121,695	59,281	133,855
Governmental Affairs	141,822	133,938	156,832	82,796	172,505
Insurance & Membership Benefits	55,728	55,684	61,966	30,653	68,153
Scientific Activities Division	125,109	122,109	182,799	105,522	201,079
Continuing Medical Education	79,722	18,971	-0-	-0-	-0-
Scientific Publications Division	609,860	580,178	659,786	343,406	725,670
Medical Services Division	178,699	161,563	229,318	109,344	251,640
Finance Division	626,658	565,478	521,745	244,757	573,720
Management Services Division	225,701	213,563	239,893	107,614	263,579
Communications Division	435,239	385,277	448,458	209,810	493,244
Annual Convention	99,455	100,453	83,200	-0-	91,520
Officers, Board, AMA Delegation	179,500	193,090	173,500	45,636	190,850
House of Delegates — Spec. Comm.	900	183	900	524	900
Council Committees	80,031	63,800	70,650	33,878	77,715
Legislative Counsel	65,000	61,401	65,000	31,805	71,500
Non-Divisional	682,433	620,659	763,804	368,261	833,079
Total Expenditures	4,065,508	3,734,339	4,372,630	2,046,028	4,751,802
Excess of Income over Expenditures	−183,826	320,072	67,210	153,426	− 76,502

TABLE II
MEDICAL SOCIETY OF THE STATE OF NEW YORK
Statement of Expenditures by Account Classification

	Revised Est. Budget 1979	Expended to 12/31/79	Revised Est. Budget 6/30/80	Expended to 6/30/80	Tentative Estimated Budget 1981
GENERAL DEPARTMENT EXPENSES					
Salaries	1,702,169	1,612,330	1,856,003	864,769	2,041,603
Payroll Taxes	108,308	101,953	115,450	66,081	126,995
Health Insurance	76,578	66,175	79,241	35,226	87,165
Travel	76,480	79,071	85,852	50,279	94,437
Telephone & Telegraph	81,161	71,492	87,933	41,499	96,726
Postage	37,416	30,738	36,353	14,416	39,988
Stationery & Supplies	41,032	33,394	46,278	21,370	50,906
Books & Publications	14,200	11,339	15,977	8,728	17,575
Provision for Doubtful Accounts	1,100	1,100	1,325	-0-	1,325
Miscellaneous	2,700	1,081	2,575	269	2,575
GENERAL HEADQUARTERS EXPENSES					
Headquarters Maintenance & Security	97,000	99,575	115,000	56,000	126,500
Equipment Repairs, Replace. & Main.	33,000	25,081	40,000	17,618	44,000
Electricity, Heating & Water	58,500	61,479	60,500	29,446	66,550
Village Taxes	33,333	33,333	35,704	35,704	39,274
Maintenance & Repair Co. Car	11,000	10,553	8,000	3,185	8,800
GENERAL NON-DIVISIONAL EXPENSES					
Supportive Services Student Section	-0-	-0-	3,200	569	3,520
Insurance	54,500	48,447	60,000	28,700	66,000
Audit	11,300	7,850	12,500	5,000	13,750
Investment Advisory Fee	8,000	8,786	10,000	3,606	11,000
Employee Benefit Plan, Consult. Fee	6,000	12,200	12,000	8,785	13,200
Unrelated Bus. Income Tax	15,000	5,753	15,000	-0-	16,500
Employee Benefit Plan	210,000	179,760	240,000	115,000	264,000
Payment to Co. Soc. for Dues Collect.	53,750	53,437	53,750	23,605	53,750
Auxiliary	3,000	1,663	3,000	868	3,000
NYS Assoc. of Professions	1,000	1,000	1,000	624	1,000
Cancer Newsletter	1,000	1,000	1,000	1,000	1,000
Pre-Employment Physical Exams	500	234	500	180	500
Dues & Contributions	2,500	2,025	2,500	875	2,750
Membership Campaign	10,000	5,476	10,000	782	10,000
PUBLICATIONS					
Journal-Print., Paper & Postage	434,600	402,462	466,000	252,107	512,600
Commissions & Discounts	51,086	48,199	51,086	26,494	56,195
Journal-Other Costs	15,875	18,959	17,400	7,111	19,140
Directory-Print., Paper & Post.	81,800	59,407	98,000	43,500	107,800
NEWS OF N Y. — Print. & Postage	96,000	69,390	84,300	38,158	92,730
Hot Line — Print. & Postage	13,000	5,052	13,000	4,890	13,000
Legislative Newsletter — Print. & Post.	29,600	28,190	32,000	21,774	35,200
Ad Rem — Print. & Postage	4,000	3,522	3,000	1,040	3,300
Printing of Pamphlets	2,000	-0-	2,000	-0-	2,000
OFFICERS, BOARD & AMA DELEGATION	179,500	193,090	173,500	45,636	190,850
EXPENSES COMMON TO SPECIFIC DEPARTMENTS & DIVISIONS					
Health Care in Correctional Inst.	-0-	-0-	4,500	1,770	4,950
Payroll Service	2,000	1,951	2,000	929	2,200
Recording Service	3,000	2,400	3,000	1,500	3,000
Public Relations	1,700	1,516	1,800	784	1,980
Computer Maintenance & Rental	30,000	29,222	35,000	15,209	38,500
Selected Economic Statistics	6,000	-0-	6,000	-0-	6,000
Professional Relations Projects	21,450	4,496	25,000	10,754	27,500
Medical Assistant	300	300	600	321	600
President & Area Conference	3,000	104	3,000	1,109	3,300
Redway & Occupational Health Award	850	553	750	-0-	750
Citations	1,700	1,899	2,000	8	2,200
District Branches	10,500	5,671	10,500	930	10,500
Legislative Counsel	65,000	61,401	65,000	31,805	71,500
House Committees	900	183	900	524	900
Various CME Activities	19,000	2,317	2,500	378	2,750
Software Packages	-0-	-0-	30,000	23,067	15,000
Editorial Consultant	5,000	5,381	7,500	2,500	8,250
Source Program Development	-0-	-0-	26,000	12,060	-0-
Reorganization Study of Depart.	27,000	30,450	-0-	-0-	-0-
Employee Search	7,882	8,402	-0-	-0-	-0-
Security during Investigation	705	705	-0-	-0-	-0-
Computer Ed.	2,000	-0-	2,000	-0-	2,000
Computer Audit	-0-	-0-	3,000	-0-	3,000
ANNUAL CONVENTION	119,502	118,992	83,200	-0-	91,520
COUNCIL COMMITTEES	80,031	63,800	70,650	33,878	77,715
CME SPRING ASSEMBLY	0-	-0-	36,803	33,608	40,483
	4,065,508	3,734,339	4,372,630	2,046,028	4,751,802

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⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman*.

⟹ Your reference committee recomends that the annual and supplementary reports of the Committee on Budget and Finance be filed for information.

⟹ . . . *The annual and supplementary reports of the Committee on Budget and Finance were* **FILED FOR INFORMATION** . . .

In discussion of the supplementary report of the Committee on Budget and Finance it was pointed out that the designated allocation of the legal fund now is approximately $1 million, with an approximate interest income of $100,000 per year. At this time it appears to be sufficient for any projected legal requirements of the Society in the coming year. In order to avoid any necessary dues increase to balance the projected budget for 1981, the Committee on Budget and Finance has recommended that the $12.50 portion of the $50.00 dues increase, be allocated to the General Fund for this coming year. Thereby, the total $50.00 dues increase approved in 1977 will be allocated to the General Fund for the coming year.

⟹ Your reference committee recommends adoption of this recommendation with the understanding that the House can vote on the reallocation of the 1977 dues increase in subsequent years, if the need is demonstrated.

⟹ . . . *The House voted to* **ADOPT** *the recommendation of the reference committee* . . .

Henry I. Fineberg, M.D.

EXECUTIVE VICE-PRESIDENT

To the House of Delegates, Ladies and Gentlemen:

SCIENTIFIC ACTIVITIES

The interests of this division are divided among six main categories which are individually described below. This year the increasing demands on staff time have necessitated an increase from five to eight staff people.

The Commission on Education. Previous reports and issues of "CME News" have detailed the activities of our Committee on Continuing Medical Education. The Committee is now in the process of reminding members of the coming deadline of March 1, 1981, and as to how they can meet the CME requirements, if they have not already done so. All members should be alerted to the communications they will be receiving on this subject and are advised to read the Committee's report to the House of Delegates which contains much useful information.

The CME Committee has continued to survey institutions throughout the State for accreditation. Its goal is to provide CME opportunities to all physicians in the State at reasonable cost and close to home. There is now no question that members of MSSNY can meet their CME membership requirements without the need to travel long distances or to pay unreasonable registration fees.

The Committee on Information Technology in Medicine is still monitoring the status of the Statewide Planning and Research Cooperative System (SPARCS), and its report updates members on the present status of this system.

The Commission on Public Health. Eighteen committees comprise this Commission. Since the 1979 meeting of the House of Delegates, these committees have met from once to thrice at MSSNY headquarters. Their activities are detailed elsewhere in this issue, in their annual reports, which should be read by all members.

The two Commissions, Education and Public Health, once again held their traditional meeting with the New York State Department of Health in Albany on June 13 and 14. This was the twenty-third occasion of this annual meeting and, as usual, it provided a very useful and stimulating dialogue between the Department of Health and MSSNY.

Scientific Program. Along with other divisional activities, the Scientific Program Committee has become increasingly busy during the past year. Its report includes the Scientific Program presented at the Annual Convention in September 1979 and the first annual CME Assembly presented at the Rye Town Hilton, Port Chester, New York, April 25, 26, and 27, 1980. Its report also describes the CME Video Clinics presented in Upstate New York last autumn and being planned for this fall. It is projecting an interesting meeting on "*Medicine and Religion*" which will be held at Rockefeller University on October 19, 1980.

Health Care in Correctional Institutions. In October, 1979, the Council approved an agreement with the AMA to participate in a program to upgrade medical care and health services in jails. A committee was appointed. The project was to be funded jointly by the AMA and MSSNY. A coordinator of the program was appointed. The report of this committee makes interesting reading and describes the present status of the project.

Physicians Placement Bureau. The Physicians Placement Bureau continues to match communities seeking physicians and physicians seeking practice locations. The section on "*Physicians Placement Opportunities*" in the *New York State Journal of Medicine* alerts both physicians and communities to this service and an application form appears on the last blue page of most monthly issues.

What Goes On In Continuing Medical Education. The blue section of each monthly issue of the *New York State Journal of Medicine* also contains a section entitled "*What Goes On In Continuing Medical Education.*" At the present time, this is at best an incomplete list of CME activities in New York State; but in cooperation with our Department of Computer Systems and Services and the CME Council of New York State, we are now in the process of developing a computerized register of all CME programs being presented in New York State. We hope that this will become a helpful service to physicians, and also to institutions which are CME accredited, by providing ready information on CME programs for those requesting it.

SCIENTIFIC PUBLICATIONS

The division continues its activities, the important one being the editing for publication of the *New York State Journal of Medicine* which appears monthly.

The editor works with the Publications Committee, whose function it is to review matters of policy. In the main, the policy is to continue to pay attention, particularly, to original clinical work which will be practical and assist our physicians in their practice of medicine.

This year the Redway Award and Medal for medical writing was awarded to Harold L. Atkins, M.D., for his article "*Emission Tomography*" which appeared in the August, 1979, issue of the *Journal*. The Hammond Award for Distinguished Service was awarded to Steven D. Douglas, M.D., for his dedication in reviewing manuscripts, particularly those dealing with immunology and infectious diseases.

The *New York State Journal of Medicine* continues to publish much official material concerning the medical society. The preliminary and final programs for the Spring CME Assembly were also prepared by this division. The advertising is controlled from the standpoint of merit and policy in collaboration with the Division of Finance.

The Albion O. Bernstein Library function is truly carried out by the librarian.

The editor is attempting to revive the past interest and activities in archives. The Olin Library at Cornell, in Ithaca, was visited to see what the nature of our collection there is and its condition. We now have an important decision as to how we shall proceed with its preservation and cataloging, and in collecting new archival material.

MEDICAL SERVICES

The pace of socioeconomic problems which have impact on the practice of medicine have continued unabated forcing the Director and Associate Director to spend much of their time throughout the State, informing our physicians about the ongoing developments in this most important aspect of medicine.

In addition to the activities of this division which will be recounted below, the Division of Medical Services has undertaken two additional tasks, namely a Statewide ombudsman program and the staffing of an Ad Hoc Committee of problems relating to the Title XIX program. Attached are the charges and purposes of the various committees that fall under the purview of the Division.

Ombudsman Service. Every year hundreds of thousands of claim forms for reimbursement for medical services rendered by physicians are filed with third party payors. In this multitude of claims, problems arise which cannot be handled at the local level by either the physician personally, his county society, or other representation. In such cases a system has been evolved wherein a particularly intractable problem is brought to the attention of this Division and intervention with the carrier is made. To date, since implementation, over 50 such cases have been referred to this Division with a satisfactory solution affected in most instances.

Ad Hoc Committee on Title XIX. The proposed implementation of the Medicaid Management Information System (MMIS) on a Statewide basis has caused great concern to the MSSNY with complaints from members about the inordinate amount of paperwork, inadequate reimbursement, prolonged delays in payment, and has resulted in more and more physicians withdrawing from the system.

Our efforts on a Statewide basis have been to ameliorate some of the more pressing problems by actively negotiating with governmental bodies to affect solutions satisfactory to the private practicing physicians and the intent of Title XIX mandate. With that in mind the Division representatives have appeared before many State governmental bodies presenting the viewpoints of the Society relative to this most pressing series of problems.

The Division has established a close working relationship with top echelon personnel of the Bradford Administrative Services, Inc,. and the New York State Department of Social Services. Meetings are held at regular intervals and a forum established for frank discussions of our mutual problems. Hopefully, as time passes, our ability to talk together will result in something positive.

Recently, representatives from Bradford, the NYS Department of Social Services, and the Division of Medical Services met with the eight counties that are scheduled to be included in the MMIS between September 1, 1980 and November 1, 1980. It was a successful meeting at which time we made it very clear that because of the uncertainty as to time frame for initiating the use of the proposed HCFA-AMA universal claim form, no further implementation under MMIS will take place until such time as a proposed simpler form is ready.

Workers' Compensation and Occupational Health Committee and Advisory Committee on the Medical Fee Schedule and Allied Problems (WCB)

(Note: The latter Committee is one of the Workers' Compensation Board — Five MSSNY members plus the Division Director sit on this committee.)

These two committees meet frequently, almost on a monthly basis, to consider numerous and varied topics — both new and ongoing. The representatives from MSSNY have been very conscientious and take their role on these committees very seriously. Since all of the members are actively practicing physicians one cannot expect them to spend the inordinate amount of time required to collect, study, and prepare poistions on all the topics under discussion. To provide the two committees with detailed information a considerable portion of the Division's time is spent in this area alone.

The Division Director has attended all the meetings of both the above committees, as well as a subcommittee of the latter dealing with in-hospital emergency, service routine costs. Additionally many hours have been spent in the Workers' Compensation Board Chairman's office and with members of his staff.

The topics reported in the last annual report continue to be discussed. At the time of the writing of this report, a new fee increase has not been promulgated and probably will not be until, as recently announced, the Chairman of the WCB will institute regionalization throughout New York State. However, there is a possibility that the fees for office visits of General Practitioners and Physiotherapists will be increased before that time.

Regionalization will be instituted based upon the Milliman and Robertson, Inc. Report, dated November 15, 1979. Specifically, it will follow Regional Pattern 4-10, as outlined in the Report, with the addition that the eastern end of Suffolk County (zip code 119) will also be in Area II. The Chairman's present plan is to implement the plan on July 1, 1980, but realistically this probably will not occur until September 1, 1980. A Statewide uniform fee will be established for each modality of practice and for the specialist. Then, on top of this a percentage factor based on the cost of maintaining a practice in each region, will be added to the base fee. These percentages will be increased stepwise until equity is reached in all regions. This will require a 3 or 4 year period of graduated increases to achieve desired goal. The Chairman has stated that with the institution of regionalization there shall not be any decrease in existing fees under the present relativity. The MSSNY, however, is still of the opinion that the adoption of the usual, customary, and reasonable (UCR) principle would be a far more equitable payment mechanism than a geographic regionalization. If the UCR principle is not acceptable, then the medical prevailing fee percentage differential would be a second choice. These alternatives have been repeatedly discussed with the Chairman but they remain unacceptable to him.

Simultaneously, the Chairman also announced that he will reregister all physicians under the WC Law. This is being done to update files and to accurately determine who will and who will not treat workers' compensation patients. Tied to reregistration will be a stipulation that a registered workers' compensation physician must treat workers' compensation patients if he accepts an authorization number; and if he does not treat such patients his authorization will be subject to revocation.

The Chairman has also stated that the Workers' Compensation Board will allow payment to medical societies of up to $10.00 for processing a new application for WC authorization numbers.

Additionally, the Chairman has issued orders, promulgated rulings, and has changed certain procedures. Most noteworthy, among these was the payment of 1½% interest to physicians on bills that are not paid in the prescribed period of time.

Once again, the Division is engaged in updating terminology in the WCB Fee Schedule as well as revising the 1975 Relative Value Scale (RVS) to conform to current medical practice. These activities had been delayed for various reasons but hopefully is once again on course and being actively pursued by the specialty societies.

One of the great problems in refuting the concepts presented in the Milliman and Robertson, Inc. Report on Regionalization is the lack of hard data for intra New York State relative to patterns of practice and cost overhead for maintaining a practice. We have no such data to substantiate or refute the Report. The Division continues to work on a methodology to get this kind of data which is so vital for our negotiating positions. Numerous discussions with the AMA Statistical Department and with outside firms as well as our "in-house" Computer Services are being held to determine the best method to secure data that will be statistically and actuarially sound and hence stand up under close scrutiny. The obtaining of this type of data is being actively pursued.

No-Fault. This continues to be a major problem. The status of the lawsuit at the present time remains unchanged. Unofficially the Judge has indicated that the State does have the right to include No-Fault under Workers' Compensation — thus essentially negating our approach that the law as far as it relates to fees is unconstitutional. In the other part of our contention that the fees are inequitable we face the same problem of lack of sufficient and solid data to support our position. We are still waiting for a judicial decision on our contentions. There are indications that such decisions will be forthcoming in the near future.

Nevertheless, we must emphasize the continuance of this legal action to remove No-Fault from the Workers' Compensation Fee Schedule — such schedule being used as a maximum fee schedule. The importance of No-Fault in relation to Workers' Compensation Fee Schedule is far more significant to our physicians than is Workers' Compensation per se.

Interspecialty. The activity of this Committee has revolved around the revision and updating of the 1975 Relative Value Scale in response to a request from the Chairman of the WCB and the legal implications of participating in this activity. Lengthy and, at times, heated discussions took place, but at all times, the seriousness of the underlying factors was not lost sight of at any time. A letter sent to all Specialty Societies fully explains the charge of this Committee (See Appendix "A"). As the Committee gets deeper into their revisions there will have to be more frequent meetings of each specialty group as well as the Committee as a whole.

It is the intent of MSSNY to keep all Specialty Societies informed as to any activity that relates to its particular area. The Division also makes certain that the Interspecialty Committee is kept informed of actions by other Committees and by the Council of MSSNY. The good interrelationships among the Specialty organizations and the MSSNY are evident — they must be continued for the welfare of all.

Cost Containment. This Committee has developed a program of some 16 areas in which hospital medical staffs can participate either by initiating them or by actively supporting them if they already exist — copies of proposals have been sent out to five county medical societies asking them to contact the medical staffs in their areas and try to have them utilize these suggestions. When we get adequate feedback a decision will be made as to Statewide implementation.

The Division Director has addressed several hospital staffs in this regard, with an apparent favorable reaction.

The Committee has reviewed National Health Insurance proposals and made numerous observations which are outlined in the Annual Report of this Committee.

It was noted, that arising out of previous suggestions of this Committee, an Ad Hoc IPA-HMO Committee has been formed and will monitor broad aspects of the HMO movement.

Minor recommendations as to rewording of the MSSNY Position Paper on National Health Insurance were proposed.

The entire concept of state regulation of physician supply and distribution of physicians throughout the State has been under discussion. Further discussions will be held and concrete suggestions will be presented at a future date.

Medical Care Insurance. This Committee while apparently functioning in a limited area of Medical Care Insurance really must consider areas with many ramifications. These include medical care insurance as it applies to all third party payors, health claim forms and their processing, universal health claim forms, universal coding systems, benefits assignments, National Health Insurance, monitoring the Hospital Review and Planning Council, as well as discussions on specific plans of insurance such as the Premier Plan being offered by Blue Cross/Blue Shield of Greater New York. All of these topics have been diligently pursued and detailed in the annual report of the Committee.

The Division Director has attended all meetings of the Blue Cross/Blue Shield of Greater New York's Medical Policy

Advisory Committee and presented the MSSNY position on a variety of topics. Of recent discussion and interest is the proposal for a pilot study for the In-hospital Midwifery Program at Roosevelt Hospital in New York City.

In spite of our arguments against the Premier Plan, it has been marketed and we are now awaiting the reports as to its success.

A very disappointing aspect of our dealings with the Department of Social Services and other groups in Albany relative to Medicaid fees and their inadequacy is their lip service as to understanding the problem and their proceeding to do nothing.

An average 20% increase was granted to primary care physicians (of certain categories) and flaunted as being a significant increase in physicians fees. Actually it was nothing, and in reality an insult to physicians in general, and to physicians taking care of Medicaid patients in particular. It will do nothing toward getting more physicians to participate in the program and may actually create a greater adverse trend.

However, the Committee and the Division of Medical Services will continue to meet with, have conversations with, exert pressure on the various persons involved and hopefully have some influence on the bureaucratic process.

Hospital and Professional Relations. No problems relative to conflicts between hospitals and medical staffs have come to our attention. Activity has been minimal, but with new concepts of liability of medical staffs, governing bodies and their relationships to each other developing, this Committee could well become very active on short notice.

Health Manpower and Rural Medical Service. Only one meeting of the Committee was held since the last House of Delegates meeting. The Demographic Survey of Physicians in New York State (Resolution 79-16) has been removed from this Committee and is now in the hands of the newly formed Research and Development Committee.

The entire concept of Physicians' Assistants is being closely monitored by this Committee. Any new developments will be reported.

Topics such as physician shortages in certain areas, the appointments of District Health Officers, the meetings with the New York State Nurses Association are all under consideration.

Health Systems Agency Coordinating Committee (HSA). This Committee has provided somewhat increased activity for the Division. The Division Director has attended all meetings of the New York City HSA Board of Directors and Executive Committee as well as the Appropriateness Review and Project Review Committees. The First District Branch has established a "watch dog" committee that studies, analyzes, and reports on all activities of the New York City HSA. It is a very active group. It should be noted that New York County Medical Society took the initiative in establishing this program and should be given credit for the monitoring activities of a newly selected individual (Health Planner) to do the work. This could very well become an example for the rest of the State.

In addition, with Appropriateness Review being actively pursued, the HSA has requested the First District Branch to provide professional technical input into reviewing the Statewide criteria for such review and adapting it to local situations. This could be, with physician cooperation, a valuable input into HSA activities by practicing physicians. We should encourage active participation. The HSA is beginning to realize that physician input into the planning process is *valid.* This activity will provide a golden opportunity for physicians to be heard.

The Director of the Division has also attended all meetings of the Executive Committee of the First District Branch where most of this activity is taking place.

Committee on Professional Standards Review Organization (PSRO). This Committee, and particularly its Chairman, has been extremely active in the PSRO program. The meetings of the Committee have been well attended and at times have included Executive Directors of the PSROs, representatives from the Statewide Council, and various State representatives involved with PSRO. Such topics as the Demonstration Project, the Monitoring Program of the Office of Health Systems Management (OHSM), the Statewide Planning and Research Cooperative System (SPARCS), judicial actions regarding confidentiality, and 709 Acute Care Bed Methodology have all been thoroughly discussed. In addition, the formation of advisory groups of Ancillary Professionals was brought to the attention of the Committee.

In addition, the staff participated in the meetings of the Statewide Council and had meetings with OHSM relative to PSRO. There are almost daily communications relative to PSRO activities throughout the State.

GENERAL COUNSEL

The activities of the Office of General Counsel fall into five categories:

I. Written Memoranda and Letters which have involved legal research
II. Legal Matters
III. Committees
IV. Meetings
V. Miscellaneous

I. ***Written Memoranda and Letters:*** Since the last annual meeting of the Society, the general counsel and his associate, have prepared numerous memoranda on behalf of the administration and various divisions and committees, as well as letters in response to inquiries from local component county medical societies and individual members throughout the State. The topics varied greatly, such as: Applicability of the Freedom of Information Law to minutes of medical staff meetings of municipal hospitals; legal implications of terminating life support systems for comatose patients; living wills; legal status of malpractice arbitration agreements; medical malpractice panels; medical treatment of minors; professional medical conduct; impaired physicians; drug information to expectant mothers; definition of the practice of nursing, podiatry, chiropractic; physician's assistants; radiologic assistants as a new category of specialist's assistants; etc., etc.

II. ***Legal Matters:***

(a) "*State of New York v. American Medical Association, et al.*" On July 5, 1979, Robert Abrams, the New

York State Attorney General, filed an antitrust suit against the American Medical Association, the Medical Society of the State of New York, 11 other corporate defendants, and one individual, Henry I. Fineberg, M.D. I served as a member of the AMA Committee on Quackery which was formed in 1963 and discontinued in 1974. The other corporate defendants are:

- American Hospital Association
- American College of Surgeons
- American College of Radiology
- American College of Physicians
- Joint Commission on Accreditation of Hospitals
- American Academy of Orthopedic Surgeons
- American Osteopathic Association
- American Academy of Physical Medicine and Rehabilitation
- Hospital Association of the State of New York
- New York Chapter of the American College of Radiology
- Nassau County Medical Society

The suit alleges that the defendants have engaged in a conspiracy to "isolate" and "eliminate" chiropractic which has raised the cost of medical care.

Since the last meeting of the Medical Society, several pre-trial motions have been decided. In October 1979, a motion was heard by the Judicial Panel on Multi-District Litigation. A joint motion had been filed by several of the defendants seeking an order to transfer this action, and two other actions, to the Northern District of Illinois for coordinated pre-trial proceedings with *Wilk v. American Medical Association, et al.* All of these actions involve claims that allege a "conspiracy" against chiropractic.*

The Medical Society of the State of New York, Nassau County Medical Society, and I submitted a joint motion opposing the transfer. In the motion opposing consolidation, it was argued that while common questions of fact may be present in all four cases, *State of New York v. AMA, et al.* is primarily concerned with local questions — the alleged "conspiracy" and its manifestations and effects in the State of New York. Furthermore, the memorandum stressed that consolidating pre-trial proceedings in Illinois would result in undue burden to the New York defendants. After much deliberation, the Multi-District Panel denied the motion to transfer.

In March 1980, several motions were filed in the United States District Court (Eastern District, New York) before Judge George C. Pratt. The motion that was of most vital concern was the Medical Society's motion seeking dismissal of the State's antitrust claim brought under the State antitrust law, the Donnelly Act. Through this motion, which was joined by all the other defendants, the Medical Society sought a ruling that the Donnelly Act does not apply to the learned professions. Legal papers were submitted that cited numerous New York court decisions that set forth this principle, the most recent of which was *People v. Roth, et al.***

In April, Judge Pratt dismissed the claim brought under the Donnelly Act holding that decisions cited by the Medical Society, including *People v. Roth, et al.*, were controlling. As of the date of this writing, it has been learned that the Court of Appeals, the highest State court, has signed an order granting leave to the State to appeal the *Roth* decision. If the State is ultimately successful in *Roth*, it is believed that the State would reassert its claims under the Donnelly Act in *State of New York v. AMA, et al.*

Regardless of the outcome over the Donnelly Act issue, the Attorney General can continue the lawsuit through claims based on federal antitrust provisions. Unlike the Donnelly claim however, the federal antitrust provisions do not impose monetary penalties.

Various other motions relating to housekeeping rules have been heard. At the time of this writing, the Medical Society is preparing to respond to written interrogatories served by the State of New York. Also, written interrogatories have been jointly served by the defendants upon the State. While litigation of this nature is usually protracted, General Counsel firmly believes that the Medical Society will prevail on the merits. The General Counsel has worked with our litigators, in all aspects of this case.

(b) *Medical Society v. Board of Regents.* In March, 1979 the Medical Society filed a lawsuit challenging the constitutionality of subdivision (a) of section 29.2 of the Rules of the New York State Board of Regents in the United States District Court, Northern District of New York. This rule subjects a physician to discipline for unprofessional conduct if the physician fails to provide copies of medical records to patients upon written demand. In June 1979, the United States District Court for the Northern District of New York dismissed the lawsuit and held that there was no evidence that any practitioner had been brought up on charges for alleged violations of the regulation. Because such evidence was lacking, the District Court held that there was no "Actual Case or Controversy" which is required by the United States Constitution for cases pending in the federal courts.

Rather than appeal this determination, General Counsel decided, with the approval of the Council, to initiate the challenge in the New York Supreme Court, Albany County. This action is pending. If necessary, the Medical Society would not be foreclosed from initiating a new action in the federal courts if it is determined that any physician has suffered or is threatened with official discipline through the application of section 29.2(a)(6).

(c) "*No-Fault Lawsuit.*" The General Counsel continues to consult with our litigators, in the action attacking the constitutionality of the Insurance Law, Section 678, which requires that charges by health care providers in "No-Fault" cases be billed in accordance with the Workers' Compensation Fee Schedule. There have been numerous adjournments of our motion for an injunction and the State's motion to dismiss because of our attempts to resolve the problem by many conferences with the Superintendent of Insurance and the Chairman of the Workers' Compensation Board. The Medical Society of the State of New York has continued to insist that the imposition of the fee schedule is unconstitutional, unreasonable, and arbitrary. A decision may be forthcoming later this year.

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* The other two actions pending are *Slavek, et al. v. American Medical Association* (Eastern District, Pennsylvania) and *Health Care Equalization Committee of Iowa Chiropractic Society v. Iowa Medical Society, et al.* (Southern District, Iowa).

** See *People v. Roth, et al.* in this report.

People v. Roth, et al. In this case, eight physicians were indicated for allegedly engaging in a concerted effort to resign their authorization to treat non-emergency Workers' Compensation patients, and to refuse to treat non-emergency No-Fault patients. In February 1979, the Medical Society filed an amicus curiae brief in the County Court, Nassau County, which argued that the Donnelly Act, the State antitrust law under which the eight physicians were indicted, does not apply to any of the learned professions. In August 1979, the County Court dismissed the indictments on the basis of the legal arguments presented in the amicus brief. Upon the dismissal of the indictments, the Attorney General appealed to the New York Supreme Court, Appellate Division, Second Department. In December of 1979, the Medical Society filed an amicus brief with the Appellate Division. The Appellate Division affirmed the dismissal of the indictments on March 24, 1980. After two successive defeats, the Attorney General sought leave to appeal to the Court of Appeals, New York State's highest court. It has come to the attention of the General Counsel that the Court of Appeals has consented to hear the appeal. Preparations are currently being undertaken to petition the Court of Appeals for permission to again intervene as amicus curiae.

In appearing before the courts as amicus curiae, the Medical Society has taken no position regarding the alleged conduct of the indicated physicians. The purpose of the amicus is to advocate the broader legal principle that the State antitrust law has no applicability to the professions. It is believed that the appearance as amicus is vital because resolution of the antitrust issue affects the profession as a whole.

(e) *News Group Publications, Inc. and Arthur Greenspan v. Blum* (Commissioner of New York State Department of Social Services). This case involves the attempt by the *New York Post* to obtain an order of the Supreme Court, New York County, to require the Department of Social Services to release information regarding the names of providers of Medicaid — reimbursed abortions. Various groups sought to intervene in this matter either to advance or attack the efficacy of abortions. The Medical Society's position, however, was distinct from other intervenors in that only the Medical Society sought to represent the point of view of the physicians. It is the Medical Society's position that any release of the identities of the providers of abortion services would cause public harassment and pressure against such providers. The Medical Society, through the General Counsel and our litigators, made this position clear through many conferences with Commissioner Blum and other intervenors.

It has come to the attention of the General Counsel that the *New York Post* is considering a compromise where it will write to individual clinics to inform them of the data that they are seeking, and, that if the clinic does not object, it should write to the Department of Social Services to authorize the Department to release the information.

III. ***Committees:*** The General Counsel has continued to provide staff support and legal advice to committees assigned to his division.

(a) *House Committee on Bylaws.* The assistance given to this committee is twofold. The General Counsel and his associate provide the necessary legal expertise required to insure that the changes proposed with respect to the Bylaws of this Society are both legally permissible, and are enacted in the proper fashion. In addition, this office provides the administrative services which are required.

(b) *Ethics Committee.* This office has continued to work with the Committee in regard to the formulation of ethical opinions concerning a myriad of subjects dealing with the practice of medicine.

(c) *Professional Medical Liability Insurance and Defense Board.* The General Counsel continues to sit monthly with the Board.

(d) *Judicial Council.* Your General Counsel provides legal advice to the Judicial Council during all stages of appeal proceedings. There were no new appeals before the Judicial Council this past year but the Office of General Counsel represented the Medical Society in the New York Supreme Court, County of Queens, in a case where a physician sought to annul the determination of the Judicial Council which affirmed the decision of a county medical society which suspended him from membership for a period of ten years. The General Counsel and his associate prepared the legal reply and briefs on behalf of the Chairman of the Judicial Council. Counsel representing the county medical society presented a separate brief on behalf of the county medical society. The Supreme Court held that the decision of the Judicial Council satisfied the requirements of substantiality but decided, nevertheless, to vitiate the decision because of the Court's determination that the county medical society made some procedural errors when it notified the physician of the charges.

(e) *Countersuits Subcommittee of the Professional Medical Liability Insurance and Defense Board.* The Council voted to continue the subcommittee in a "holding pattern" this past year following adverse Court of Appeals decisions in *Drago v. Buonagurio* in December 1978 and *Belsky v. Lowenthal* in May 1979. Last year, the General Counsel reported that the Illinois physician (Dr. Berlin) who had his countersuit dismissed by the Illinois Courts petitioned the United States Supreme Court for a writ of certiorari. Since that time, General Counsel has learned that the United States Supreme

Court denied certiorari. It has become apparent that an order for physician countersuits to have any chance of success, legislative change is required. General Counsel reported on one bill sponsored by the Law Revision Commission which would obtain much needed reform. At the time of this writing, the bill is still under study by a legislative committee.

IV. ***Meetings:*** The General Counsel was requested to speak on topics. Following is a list of some forums and meetings attended:

- *1980 Spring CME Assembly* — The General Counsel participated in a symposium to discuss the physician's role in highway safety;
- *Calvin Bullock, Ltd.* — The General Counsel and other representatives from the Medical Society met with representatives of Calvin Bullock to finalize agreements for the Medical Society of the State of New York Retirement Plan and to discuss the proposed Common Investment Trust for Professional Corporations of the members of the Medical Society;
- *"SPARCS" Meeting* — The General Counsel and other representatives of the Medical Society met with representatives of the Hospital Association of New York State to discuss the problems presented by the Statewide Planning and Research Cooperative System ("SPARCS") to be implemented by the State Health Department.
- *Ad Hoc Committee to Meet with Administrative Judges of New York State* — The General Counsel accompanied representatives of the Medical Society and the Medical Liability Mutual Insurance Company (MLMIC) to meet with a committee of administrative judges headed by Judge Joseph F. Gagliardi to discuss the problems involved with the medical malpractice panels.

V. ***Miscellaneous:*** The Office of General Counsel reports directly to the Council regarding the status of proposed revisions to the constitution and bylaws of district branches and county medical societies. The General Counsel is charged with advising the Council that all revisions comply with the Bylaws of the Medical Society of the State of New York, as well as State and Federal law.

The General Counsel has continued to work with the Frauds Bureau of the Nassau County District Attorney's Office concerning the irregularities in the operation of the Division of Computer Systems and Services which were discovered in February 1979. In addition, the Office of General Counsel prepared the Statement of Loss Claim with our bonding company. Through these efforts, the Medical Society was reimbursed in excess of $16,000 for loss resulting from the computer irregularities.

The General Counsel was requested to review Resolution 79-24 and to report to the Council. The Resolved portion of Resolution 79-24 reads:

"**Resolved,** That the Medical Society of the State of New York undertake a study to ascertain the extent of actual or perceived fears of deprivation of tax exempt status by scientific organizations who may wish to express opinions on matters that affect the public welfare, including recommendations for political effort to prevent or correct injustices inimical to the public welfare; and be it further

"**Resolved,** That such study shall be reported to the House of Delegates at its next annual meeting, together with such recommendations as are deemed advisable."

The General Counsel reported his recommendations to the Council in January 1980. In the report of the General Counsel, the distinctions between scientific organizations and professional associations were pointed out. The Medical Society, which is a professional association (or business league as defined by the Internal Revenue Code) is not restricted in issuing comments on political or legislative matters as in the case of a scientific organization. (The report of the General Counsel pertaining to Resolution 79-24 is published in its entirety in the Council Minutes, January 1980, pages 63-65.)

On the basis of the report of the General Counsel, the Council **DISAPPROVED** Resolution 79-24.

GOVERNMENTAL AFFAIRS

General Observations — Overview. In the area of principal concern to the Division, namely, the State Legislature, more positive accomplishments were recorded than in any recent year. Three heavily supported MSSNY bills passed both houses of the State Legislature and, as of the date of this report, one had been signed into law. These bills are familiarly known as the Malpractice Collateral Sources Bill; the Standard Claims Form Bill; and the Physicians Committee Bill. Details concerning these successful bills, as well as other legislative matters, will be spelled out in reports to the House of Delegates.

There were three additional major accomplishments on the constructive side of the ledger. Intensive negotiations involving two important health bills, namely, the so-called Physical Therapy Bill and the Professional Discipline Bill, resulted in the development of final revisions of these proposals, which made them acceptable to MSSNY. The Marijuana Cancer Therapy Bill was strongly supported by MSSNY and was endorsed by the Legislature. All three proposals are before the Governor at the time this report is being written.

As a result of MSSNY's efforts, numerous objectionable bills went down to defeat. Among these proposals were measures on abortion, optometrists, nurse practice, generic drugs, and a repealer of the present two-line prescription form.

Productive conferences were held with the leaders of both the Assembly and Senate, as well as with the chairmen of key committees, such as health groups in both houses. MSSNY officials actively participated in these important meetings, which involved such vital topics as malpractice and nurse practice.

A new-type State Legislation Conference was held in the spring in Albany as a substitute for the usual fall Syracuse meeting. The new format proved to be an outstanding success. Almost 100 county medical society representatives met for a briefing session in the morning and visited their legislators in the afternoon. Not only were the participants and legislators pleased, but the overall production work of our Albany operations can be partially attributable to the Visitation Program.

In the area of federal legislation, many communications were sent to Washington expressing MSSNY's views on pending health legislation and, when speed was necessary, telephone calls were made to the nation's Capitol in cooperation with the AMA.

Beneficial relations were continued with the New York State Association of the Professions (NYSAP) which resulted in that organization's support of key MSSNY legislative proposals in Albany. Notable among these actions was NYSAP's endorsement of MSSNY's Collateral Sources Bill before the Governor.

Albany Operations. During the 1980 session of the New York State Legislature, the director represented the State Medical Society at the State Capitol in Albany. Working closely with the Society's legislative counsel, the director contacted key lawmakers and their staffs to discuss bills of interest to the medical profession and to promote the implementation of MSSNY's legislative program.

While the Legislature is in session, the director's answering service is in operation in Albany to assist him in maintaining communication with the legislators and their staffs, county medical societies, individual physician members, and the State Society headquarters.

The weekly legislative newsletter of our State Medical Society, the *Capitol News*, has been published in Albany during each session of the Legislature since 1965. This publication was delivered each week to members of the Legislature, county medical society officers and executives, and key physicians throughout the State. The *Capitol News* is designed to keep its readers abreast of important developments in health legislation in New York State and to advise them of the opinion of the State Medical Society on the key health issues which are being discussed in the Legislature. To date, 21 issues have been distributed this year, with a final wrap-up issue to be published after the Governor has acted upon bills passed prior to the recent recess for a total of 22 issues for 1980.

The Albany activities received strong back-up support from the division headquarter's staff led by the assistant to the director. Over the past two years, more than 160 memoranda addressed to specific bills were prepared in cooperation with legislative counsel and sent to the legislators. This teamwork of personal contact and written communications was the key to success in gaining legislative approval of some of our bills and averting a massive number of undesirable measures.

Headquarters Activities. Under the supervision of the division director, the staff is responsible for the review of state and federal legislation pertaining to health care and the practice of medicine. Extensive files are maintained on key topics and issues which arise concerning the relationship of medicine and government, as well as on individual bills which are introduced in the State Legislature and in Congress.

During the 1979–80 State legislative session, approximately 23,500 bills have been introduced. These bills were screened by staff and by legislative counsel. Those involving health care (more than ten percent) were referred for analysis and comment to the appropriate Interspecialty Committee representatives and to the chairmen of the appropriate State Society committees. These comments, as well as recommendations from county medical society leaders via the Legislation Opinion Report of *Capitol News*, were considered along with information in division files in establishing the State Society's positions on all health legislation. Position statements and memoranda were prepared in cooperation with our legislative counsel and disseminated to the legislators and governmental officials. The staff also cooperated with other Society divisions by providing them with necessary information and seeking their advice and recommendations on pending legislation and regulations.

Memos and LABs Distributed. More than 160 memoranda on individual legislative proposals were prepared and distributed not only to the legislators, but to members of the State Society Council, Board of Trustees, and to staffed county medical societies. Finally, the *Legislative Action Bulletin* (LAB) was sent to county medical society presidents and executives and to liaison physicians.

Legislation Information Center. Through our legislation information center, the staff provided information and materials for publication in the *News of New York*. Varied requests for information from county medical societies, individual members, the AMA, and others were answered as quickly as possible. In addition, suggestions and opinions obtained from individual members and county medical societies regarding legislative issues were tabulated and recorded for use in preparing the State Society's positions on specific legislation.

Brochure Summarizing Legislation. Continuing the practice started last year, a 35-page brochure presenting a concise report on health bills of interest to the medical profession acted upon during the 1979 session of the State Legislature was prepared and widely distributed. A similar brochure for the 1980 session is in the planning stage.

State Legislation Committee. The Division of Governmental Affairs provided staff support to the State Legislation Committee. In this capacity, the director and staff worked closely with the committee and under its direction. It is the responsibility of the division to appraise the committee of activities in Albany, make the necessary preparations for meetings, assist in conducting the meetings, and in the preparation of reports to the Council and House of Delegates.

The division staffed two State Legislation Committee meetings. The first was held on August 23, 1979 at Headquarters. The purpose of this meeting was to prepare a report to the House of Delegates recommending MSSNY's 1980 State Legislation Program. The second meeting was held in Albany on January 31, 1980 to review the early activities of the 1980 legislative session and to consider resolutions referred to the committee by the Council and the House of Delegates. The committee reviewed new proposals which had been introduced during the early weeks of the session and discussed the topics which were likely to become the major health care issues of the ongoing session.

Special Projects. During the 1980 session, now in recess, the division was engaged in several special projects which involved working closely with committees and divisions of MSSNY and allied medical groups.

The following is a brief report of these activities:

MSSNY Committee re: Assemblyman Mark A. Siegel. The director and legislative counsel met on numerous occasions with Ralph M. Schwartz, M.D., and John A. Finkbeiner, M.D., as members of MSSNY's committee, to work with Assemblyman Mark A. Siegel, Chairman, Higher Education Committee, to discuss his Committee's report and bill on the revision of professional misconduct proceedings in the area of medicine. The end result was agreement to support a bill, which passed both houses, after many major changes had been made to meet MSSNY's objections.

Physical Therapy Bill. The director and legislative counsel and staff were engaged in numerous meetings concerning the so-called Physical Therapy Bill, in which physician-officers of the New York State Society of Physical Medicine and Rehabilitation actively participated. The combined efforts of both medicine's representatives, key legislators, including the sponsors of the bill, Senator Joseph R. Pisani and Assemblyman William F. Passannante, and the New York Chapter, American Physical Therapy Association, resulted in a bill which was acceptable to our State Medical Society.

Medicaid. The director, legislative counsel, and staff assisted Daniel F. O'Keeffe, M.D., Chairman, Commission on Medical Services, through participation in meetings regarding medicaid fees and forms with the Chairmen of both the Senate and Assembly Health Committees in Albany. Both meetings were productive in that they set favorable groundwork for future legislative considerations of MSSNY's concerns about medicaid.

Conferences with Legislator Leaders. Several worthwhile conferences were held with the leaders of both the Assembly and Senate in which the director and legislative counsel participated. These meetings involved thorough discussion of MSSNY's basic concerns about malpractice, nurse practice, generic drugs, optometric use of drugs, and other health problems. Representatives of the Medical Liability Mutual Insurance Company (MLMIC) also were actively involved in these important meetings.

Federal Legislation Committee. The division is also responsible for providing similar staff assistance to the Federal Legislation Committee. The director and his staff worked closely with the chairman and committee members and under their supervision. The division provided the committee with information on federal health bills and prepared materials for their meeting which was held on June 5, 1980. The purpose of this meeting, held at the State Society headquarters, was to discuss several important bills being considered by the 96th Congress on topics ranging from hospital cost containment and health planning to medicare and medicaid reforms.

The staff worked closely with AMA staff and exchanged data of mutual interest. At the request of the AMA, mailgrams, concerning MSSNY's positions on bills about to be considered by the Congress, were quickly dispatched to New York's Congressional Delegation.

New York State Association of the Professions. Working with the Executive Vice-President and Carl Goldmark, Jr., M.D., as MSSNY's representatives on the Board of Directors of NYSAP, the director promoted our State Medical Society's legislative issues at several Board meetings. At one crucial meeting, MSSNY's representatives were successful in blocking admission of the New York State Optometric Association to membership in NYSAP.

The director served as Chairman of NYSAP's nominating Committee; Chairman, Legislation Committee; and member of Legislation Breakfast Committee. There were many beneficial results of MSSNY's involvement in NYSAP activities. The primary bill on its legislation program was MSSNY's Professional Service Corporation Tax Benefits Bill, which, for the first time, moved in the Assembly, where it was considered by the Ways and Means Committee. The most productive action came, however, when NYSAP sent a telegram to the Governor requesting him to sign MSSNY's Collateral Sources Bill.

COMMUNICATIONS

The Communications Division is comprised of the Department of Professional and News Media Relations, the Department of Information, the Department of Membership News, and the Field Service of four regional representatives.

The Director, in addition to supervising these four components of the Division, also staffs the Council Committees on Awards and Prize Essays, Communications, Membership, and Medical School Relationships and the New York Delegation to the American Medical Association.

In September of 1979, Mark J. Kafka joined the staff as Assistant to the Director. Mr. Kafka was previously director of public affairs for Fairleigh Dickinson University and brings a new depth to our membership promotion and news media relations.

The Department of Professional and News Media Relations is responsible primarily for membership promotion, news media relations, coordination and promotion of professional workshops, and promotion of continuing medical education clinics.

I. ***Membership Promotion*** is an area of increasingly vital significance to the future of MSSNY. During the past year, the principal efforts in this respect were devoted to a new, comprehensive analysis of MSSNY's membership situation and to developing a long-range recruitment and retention program. A proposal will be submitted for management's consideration in July.

II. ***News Media Relations*** have been modestly successful. At the 1979 Annual Meeting, for instance, only a handful of reporters passed through the news room. Interest in the actions of the House of Delegates reached a new low; minimal compared to the scientific sessions, which generated relatively widespread coverage in the scientific and professional media. Successes included Statewide coverage of MSSNY's jail program and its position on premarital testing for venereal disease, home births, and the SPARCS confidentiality issue.

The Communications Division staff received only 57 media inquiries during the year reflecting the declining perception of MSSNY as a major news source.

The Communications Division encouraged greater involvement in generating media publicity by the local county medical societies. The Division has supported these local efforts by offering such special programs as the AMA speaker's workshop and the "Medicine & the Mass Media" symposium. Both were enthusiastically received by participants. Such programming will be expanded in 1980-81.

III. ***Promotion of Special Programs*** focused on resident workshops, the "Medicine & the Mass Media" symposium, and the AMA speaker's training workshop.

A total of eight "Establishing Yourself in Medical Practice" workshops for residents were conducted in New York City, Rochester, and Syracuse, with a combined registration of 224. Reduction of resident dues to ten percent of the dues of active members, effective January 1, 1980, enabled the Division to utilize the workshops as vehicles for recruiting new resident members. The results were highly successful: a total of 38 residents, 40 percent of the potential for new members at the four workshops, joined their respective county medical societies and MSSNY. Encouraging was the fact that the total promotional cost to MSSNY for these new members was only $6.03 per new member!

"Medicine & the Mass Media" was a special symposium developed internally by the Communications Division to increase understanding of media operations and opportunities on the part of MSSNY spokesmen and others with media responsibilities. The program was moderated by Professor Irving Rosenthal, MSSNY editorial consultant, and featured a panel of distinguished media and public relations professionals.

A special workshop co-sponsored by the AMA was conducted to train MSSNY officers and councilors to serve as media spokesmen. The Council, impressed with the value of this training for spokesmen, subsequently approved a series of three such workshops to be offered for the general membership in 1980-81. The Department was responsible for the promotion of the program of three continuing medical education clinics in non-urban areas, for which the total combined registration was 208 physicians. Production of the AMA cassettes for these clinics fell behind schedule, however, and the spring continuation of the series had to be cancelled; it will be continued in the fall 1980.

The Department of Information, consisting of one staff person, provides a vital service to the MSSNY membership, allied health organizations, and the public. The Department receives several hundred requests for advice, assistance, and information each month. These requests originate not only from within the State of New York, but also from other parts of the nation. The Department of Information in addition provides extensive staff assistance to the Auxiliary to the Medical Society of the State of New York and the American Association of Medical Assistants, New York State Society, Inc.

The *News of New York*, issued 24 times annually, remains MSSNY's principal means of communicating socio-economic, legislative and other non-technical and non-scientific information to our membership. Indications — responses, for example, to announcements of membership benefits and other services offered through the *NEWS* — are that reader loyalty is high. During the year, in addition to carrying special supplements promoting society meetings and continuing medical education seminars, four reports to the membership of the Medical Liability Mutual Insurance Company were carried in the *NEWS*.

Our *Ad Rem* bulletins continue as an important method for communicating "quick news" to the member and nonmember physicians of New York State. Approximately 370 *Ad Rem* bulletin boards are mounted in strategic locations in major hospitals throughout New York State.

The Medical Society of the State of New York's field service is the Society's most effective means of liaison with its component county medical societies. The four regional representatives constantly circulate about the State contacting the officers and staff of local societies and district branches to gather and disseminate current information, and to assist with the programs of both the State Society and the local societies. They attend the majority of the meetings of the county societies and district branches to convey information and interpret State Society policy. During the past year these four men have continued to try to activate county-level membership promotion programs and were active in the accumulation of much of the needed information for communications and membership programs.

The regional representatives present a "new member kit" containing comprehensive information regarding MSSNY and AMA benefits and programs to each new member with a word of personal greeting. In 1979, the regional representatives again staffed the MSSNY exhibit during our annual convention and the MSSNY booth at the 1980 CME Spring Assembly. They routinely staff the resident workshops and CME clinics held throughout the State.

Staff of the Communications Division continue to study ways for the improvement of communications with MSSNY headquarters, between the State Society and the county components, with the individual members and, of course, with the public.

INSURANCE & MEMBERSHIP BENEFITS

General Insurance. There are approximately 8,701 participants in the Medical Society of the State of New York Supplemental Insurance Programs. Group Life, Disability Income, Professional Overhead Expense, In-Hospital Indemnity, and Accidental Death and Dismemberment Insurance Programs are available for our physician members. Participation increased in all plans this past year. All of our group insurance programs feature a special renewal guarantee.

We have been advised by the underwriters of our Group Life Insurance Program, the Bankers Life of Des Moines, Iowa, that our group has earned a dividend of 66.4% of the annual premium for this year. This will be distributed to the participating physician members in the program.

Since the inception of the Group Life Insurance Program, the underwriting company has paid over $500,000 in dividends to physician members insured under the plan. The insurance programs underwritten by the Continental Insurance Companies have paid over $6,000,000 in benefits to physician members since the programs were installed. Many insured physicians have written letters to the Medical Society of the State of New York which are highly laudatory of the fast claim payment service.

Staff and the General Insurance Committee continue to explore and review other forms of insurance for the personal and professional needs of the membership. These include a Disability Benefits Law Insurance Program, an optional increased benefit in the supplemental Disability Income providing for additional lump sum payments to members returning to practice following disaability, a Major Medical Plan, a Medicare Supplement, and Group Property and Casualty insurance. It should be noted that the underwriting market for some of these plans is limited, due to the adverse experience throughout the insurance industry.

Membership Benefits. The theme "Membership Pays, It Does Not Cost" continued to be developed and expanded by the Division of Insurance and Membership Benefits. New benefits, including business machines, copying equipment, and international travel service, a unique telephone wholesale buying service of major and minor appliances as well as gift items were reviewed by staff for the Membership Benefits Committee, and referred to the Council for approval. All these programs feature special discounts and service for our physician members and their families.

The Membership Benefits Committee and staff developed the Physicians Benefit Journal, which is a new magazine that highlights our membership benefits programs and contains special articles concerning them.

Thousands of requests from our physician members, both written and telephoned, are serviced annually in a highly professional manner. An analysis of these requests show the most popular programs to be: Purchasing and Leasing Cars at group discounts; Major Appliances at wholesale prices; and our Group Insurance Programs.

Administrative Committee for the MSSNY Pension Program. After considerable study and research, the Council and Board of Trustees approved a Retirement Program for the membership, which features many flexible options and low cost.

The corporate version of the Pension Plan has also been approved and should be available before the end of the year, for the benefit of the physician members who practice within the framework of the Professional Corporation.

To date, over 1,000 physician members have expressed an interest in the program.

An Administrative Committee was established to generally oversee the performance of the Pension Program.

Fiduciary Liability Insurance was secured for the protection of the Medical Society of the State of New York and the Administrative Committee for the MSSNY Pension Program.

COMPUTER SYSTEMS AND SERVICES

The Computer Service Department activities progressed very rapidly since August of 1979. Considering the situation, we are way beyond the progress anticipated. The first major undertaking was to update all member physician records. This was accomplished by distributing a computer listing of all physicians to each and every county medical society. Included with this listing, the county medical societies were given physician maintenance forms to be returned to the State Medical Society for updating of the computer records. With the county medical societies cooperation, we have enhanced the accuracy of our physicians records.

The second undertaking was to enter all backlogged CME credits. This project was done both in-house and with the use of an outside data entry service. As of June 1980 we are entering all current CME data via the use of a Cathode Ray Tube located in the CME Division office.

The third and most strict undertaking was devoted to the Medical Directory. After realizing we did not have the necessary programs needed for development, we redesigned a program through many long hours of research and planning. Sufficient time was allocated so questionnaires would be updated properly. We deleted the names of deceased members, added zip codes, and corrected inaccuracies. We feel these pitfalls have been corrected for the current 1980–81 issue. In addition to the above, we found it very necessary to document as many programs as possible. Therefore no one individual has total control of the Computer System. This project has enhanced the security of the Medical Society's computer activities. We hope in a short period of time to be able to say that the State Medical Society has the best Data Processing Documentation in the industry.

In addition to the already developed computer applications we have developed a new dues payment system, reporting to MSSNY and the PACs' Board of Directors. It will highlight all physicians who have contributed to NYMPAC and/or EMPAC by county. A cover sheet highlighting dollars collected by district will be attached. We have also developed a method of reporting to PACs, a current year non-contributors list as compared against the previous year.

To keep our deceased physicians records up-to-date, we have developed a deceased physician system which automatically purges physicians from both the directory file and membership file. Along with this we also produce a hard copy listing which is distributed to both the Membership Department and the Communications Division. This listing will be available quarterly to any of our county medical societies, the State Education Department, and the AMA. A deceased physician's history file will be maintained on tape separate from the current membership records.

One of the largest and potentially beneficial developments is putting the New York County Medical Society on-line with MSSNY's Computer (as of October 1980). This will give them direct access to our files for inquiry purposes and direct updating of any data pertaining to New York County. This innovation will guarantee accurate data at all times, both coming in and going out of our computer. We hope many of our larger county medical societies will follow in the footsteps of New York County. We at the State Society are prepared to demonstrate to any county medical society why and how a terminal in their office can benefit their internal and external operation.

A completely new auxiliary maintenance system has been implemented during the past six months. This file can be maintained via an auxiliary maintenance form distributed to all board members and committee members. It has the ability to delete, add, or change information pertaining to any member. The purpose of this application is primarily for the accurate production of mailing labels for the Distaff magazine. The possibility of including this in our on-line environment is now in the research stage.

A few of the up and coming areas of computerization or enhancements to the now existing computerization are in the research and development stage.

They are as follows:

1. Direct communications with the State Education Department for development of our nonmember physician file.

2. A CME registry for the entire State of New York, detailing when and where a particular course will be given. Included will be category credits, speaker or speakers, topic of discussion, etc. This will be available to all society members.

3. Under the supervision of the Directors, the Division and Department staffs of both Computer Services and Research and Development will work hand in hand in the future development of enhancing our computer records of nonmember physicians. Various resources including the State Education Department, the AMA, and the HSA will be utilized.

4. Summarizing of all physicians CME credits by category within a three year period as opposed to individual detailed record keeping. It is being given serious thought about designing this application on-line so the CME Division can directly enter this data upon receiving. This application will also produce a printout upon physician request.

5. Production of specialized listings, statistical requests and various other reports to county medical societies, specialty societies, and other health related institutions.

6. Study of various mini-computers systems as they relate to membership benefits. Inasmuch as mini-computers or computer services are becoming the state of the art for conducting business, many physicians especially those in group practices are looking to an automated way of updating and increasing the throughput of everyday accounting procedures. It can also capture other vital information necessary to supplement and track the business aspects of the profession and their practice.

FINANCE

The Division has undergone some changes since the last report. The Division is now under the direction of the former Assistant Comptroller, Philip G. Keating. We trust that Mr. Keating, with his past experience as an auditor with Fox & Co., and seven years with MSSNY, will do a competent job.

Finance and Accounting. The annual report from the certified public accountants, Fox and Co., for the year ending 1979, was concluded in April, 1980. The report shows a net income of $320,072, in the General Operating Fund, and a total reserve of $1,936,627. In addition to the General Operating Fund, the Legal Fund has a surplus of $964,211, and the Special Fund (Malpractice) has a surplus of $772,858.

Also, during the year 1979, the Society was able to return over $519,000 to the counties as part of the dues incentive plan, passed by the 1978 House of Delegates.

Physicians Records and Directory. Due to the reorganization of the Computer Department, we are happy to report that both the membership and directory files have been corrected and updated. We are now confident that the 1980–81 Directory will be out on time, in the Fall of 1980, and will have zip codes.

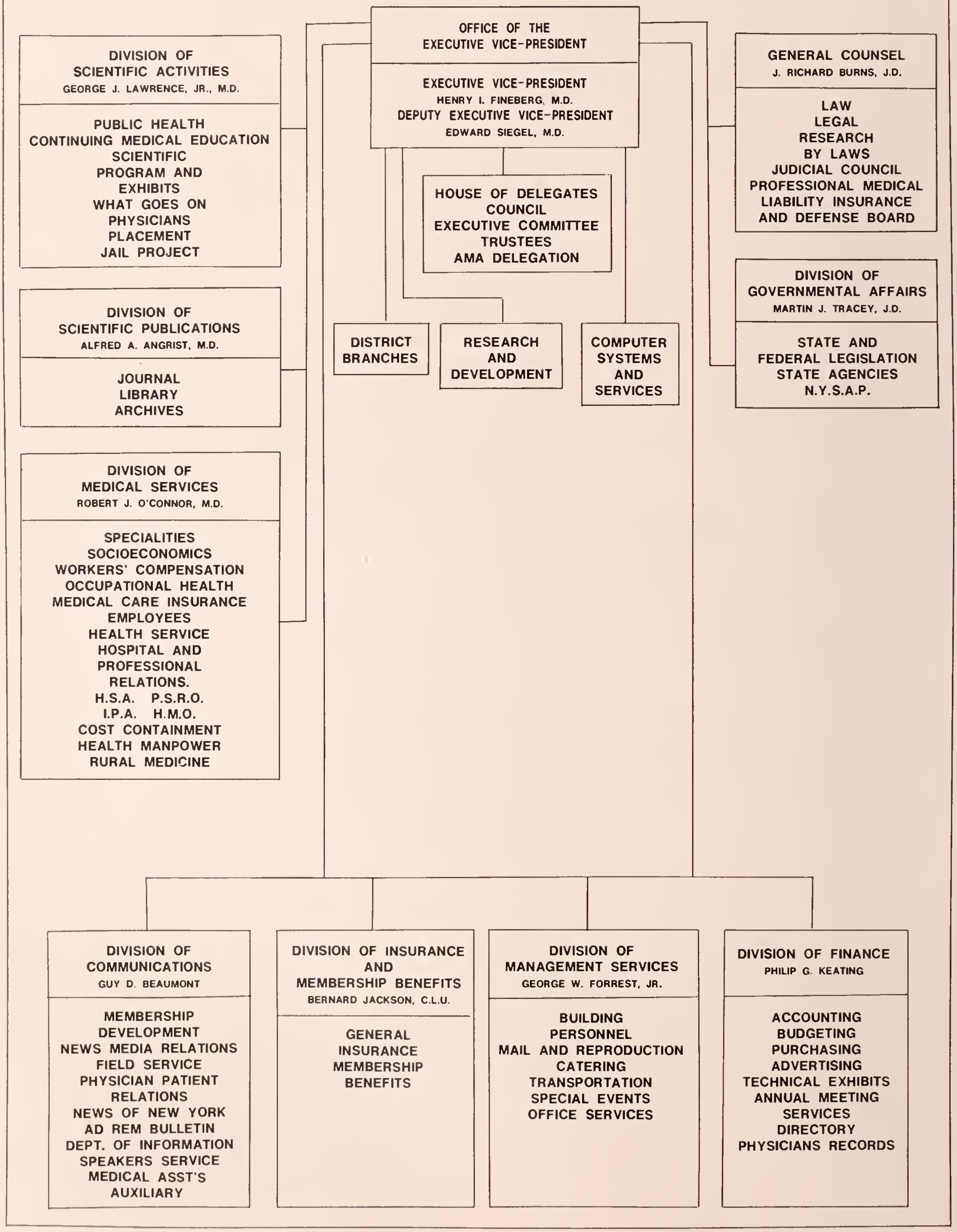
Advertising — New York State Journal of Medicine. We are happy to report a turnaround in advertising. In the last annual report, we were projecting a loss in advertising revenue for 1979. We finished the year with a net increase of $10,500. The outlook for 1980 is to at least match and hopefully surpass 1979 advertising revenues.

Technical Exhibits. As of 1980, the technical exhibits will no longer be part of the annual meetings. They were combined with the scientific meetings and made up the 1980 Spring CME Assembly at the Rye Town Hilton. Our revenue from booth rental dropped to $18,000.

Respectfully submitted,

Henry I. Fineberg, M.D.
Executive Vice-President

MSSNY
THE STAFF
TABLE OF ORGANIZATION
MAY 1, 1980



APPENDIX "A"

June 4, 1980

TO: Presidents of all Specialty Societies
Members, Interspecialty Committee
Members, Workers' Compensation & Occupational Health Committee

FROM: G. Rehmi Denton, M.D.
President
Medical Society of the State of New York

Dear Doctor:

In spite of many meetings, letters, and telephone conversations, all concerned with the Relative Value Scale use and revisions, there still continues to be a great deal of confusion as to what is actually being requested by MSSNY and the legal implications that might arise with the FTC and Justice Departments. Because of this confusion I should like to very succinctly restate the request of the MSSNY to you and our position as regards any possible legal actions that might be instigated. This letter should completely answer the many inquiries. Keep in mind that all our discussions apply only to workers' compensation and to the relative value scale — we are not discussing fees.

(a) For purposes of and on the request of the Chairman of the Workers' Compensation Board, fulfilling the requirements of the Workers' Compensation Law of New York State, the MSSNY officially requests your participation in the revision of the 1975 Relative Value Scale as it applies to your specialty.

(b) We request your participation in a revision of the 1975 RVS. This includes deleting no longer applicable procedures, adding new procedures, revising specific Relative Values, and updating terminology to conform to CPT-4. It is not our intention to start from ground zero and produce a new RVS. This would be virtually impossible.

(c) Through your representatives on the Interspecialty Committee, all changes will be considered by that committee and relativity, as it interfaces among the specialties, will be developed. When this is completed the results will be sent to the Council of the MSSNY for approval. When approval takes place the revised RVS will be sent to the Chairman of the Workers' Compensation Board as our recommendation in response to his request under Section 13-(a) of the Workers' Compensation Law. He may accept or reject our proposals. If he accepts he, and he alone, will then promulgate conversion factors to translate the RVS into fiscal reality. The MSSNY has no part in this latter process.

(d) The MSSNY is fully aware of the FTC and Justice Department activities in this area. It is the opinion of the MSSNY that we would not be subject to FTC or Justice Department challenges since we are fulfilling a request by an official NYS Agency — the Workers' Compensation Board to advise the Chairman of the Workers' Compensation Board what the MSSNY considers to be "fair and equitable remuneration," as required by Section 13-(a) of the Workers' Compensation Law. The MSSNY considers our participation in the RVS as fulfilling our obligations under the above section of the Workers' Compensation Law.

The MSSNY also recognizes the differences of opinion as expressed by various legal counsels. We cannot say that there will not be an attempt by the FTC or Justice Department to challenge our activities. We believe it to be unlikely However, in the event of legal challenges the MSSNY is ready to accept full responsibility for any legal activities arising out of its request to you. This position is inherent in our request for your participation. If any person or group is challenged it would, in all probability, be MSSNY. Also, note that the Council of the MSSNY has officially approved our participation in the RVS revisions and updating, while at the same time, stressing our fundamental philosophy that the only truly equitable fees are those based on the usual, customary, and reasonable concept.

I trust the above has answered the many inquiries from our specialty societies. We stand ready to work with each of your societies separately and collectively at the proper time. The MSSNY really has one goal in these activities — i.e., to help develop a system that will insure all our colleagues a fair and equitable return for services rendered — now and in the future.

Please do not hesitate to talk with us at any time and call the Society whenever necessary.

Sincerely,

G. Rehmi Denton, M.D., *President*

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⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman.*

⟹ Your reference committee commends the Executive Vice-President for his indepth report, and was particularly pleased with that aspect of the report dealing with the Computer Systems and Services. It was noted that the improvement of the Computer Service will allow the Society to more efficiently offer services to members in CME and many other areas.

The committee would like to take this opportunity to thank Henry I. Fineberg, M.D., for his many devoted years of service to the Society. We wish him well and look forward to his continued consultative advice to the Society in the years to come.

⟹ Your reference committee recommends that the report of the Executive Vice-President be filed for information.

⟹ . . . *The report of the Executive Vice-President was* **FILED FOR INFORMATION** . . .

NEW YORK DELEGATION TO THE AMERICAN MEDICAL ASSOCIATION (ANNUAL)

To the House of Delegates, Ladies and Gentlemen:

INTERIM MEETING
HONOLULU, HAWAII
December 2 to 5, 1979

At the Interim Meeting, Honolulu, Hawaii, December 2 to 5, 1979, the New York Delegation included the following:

Delegates: Edgar P. Berry, John H. Carter, John L. Clowe, George L. Collins, Jr., Paul M. DeLuca, G. Rehmi Denton, John A. Finkbeiner, Joseph R. Fontanetta, Carl Goldmark, Jr., Joseph J. Kaufman, Bernard J. Pisani, Milton Rosenberg, Ralph M. Schwartz, Charles D. Sherman, Jr., and George T. C. Way.

Alternate Delegates: Charles N. Aswad, Morton Kurtz, Allison B. Landolt, Robert A. Mayers, and Joseph F. Shanaphy.

Section Delegates: George F. Catlett, Ray A. Elliott, Russel Patterson, and Julius Stolfi.

Also: James M. Blake, James J. Burnett, Gerald D. Dorman, William C. Felch, Henry I. Fineberg, Robert M. Kohn, Dattatraya Lanjewar, George J. Lawrence, Jr., Victor J. Tofany, Edward Siegel, and Tamarath K. Yolles.

County Executives: Coleman M. C. Fineberg and Norman D. Steingraber.

Staff: Guy D. Beaumont and Irma A. Erickson.

Meetings: The Delegation held breakfast meetings at 8:00 a.m. on December 1 and 2, 1979, at which the reports and resolutions sent to the delegates in the advance handbook were analyzed. William S. Hotchkiss, M.D., a member of the AMA Board of Trustees, addressed the Delegation at the Sunday morning breakfast meeting, clarifying the AMA's current position on National Health Insurance and Continuing Medical Education accreditation procedures. At the 7:00 a.m. breakfast meeting on December 3, additional reports and resolutions distributed that morning were reviewed. After a consensus opinion had been reached, delegates specifically assigned to reference committees expressed the views of the New York Delegation at reference committee hearings on Monday. The Delegation considered reference committee reports at 7:00 a.m. breakfast meetings on Tuesday and Wednesday morning, December 4 and 5, 1979. Prior to its presentation to the House, each reference committee report was reviewed and the Delegation discussed the position that should be taken on the various issues coming before the House.

In addition to the above breakfast meetings, the Delegation caucused at luncheon meetings on December 3 and 4.

The New York Headquarter Suite was open on Saturday, Sunday, Monday, and Tuesday evenings.

Reference Committee Assignments. Members of the New York Delegation serving on reference committees were:

E. (Scientific-Public Health)	Joseph R. Fontanetta
G. (Miscellaneous)	Bernard J. Pisani

Observers at reference committee hearings, designated by the chairman of the delegation, were:

Amendments to Constitution and Bylaws	Drs. Aswad, Berry, and Collins
A. (Insurance and Medical Service)	Drs. Denton and Finkbeiner
B. (Legislation)	Drs. Carter and Schwartz
C. (Medical Education)	Drs. Landolt and Sherman
D. (Hospital and Medical Facilities)	Drs. Kaufman and Way
E. (Scientific-Public Health)	Drs. Clowe and Rosenberg
F. (Board of Trustees)	Drs. Blake and Goldmark
G. (Miscellaneous)	Drs. DeLuca, Shanaphy, and Siegel
H. (Miscellaneous)	Drs. Dorman, Kurtz, and Tofany

Resolutions. The following resolutions were introduced by the New York Delegation and were acted upon as indicated:

Resolution: 21(I-79), Reimbursement for Member Recruitment

Whereas, Member recruitment is a major problem in the American Medical Association and most local and state medical societies; and

Whereas, Incentives for encouraging local member recruitment efforts may result in an increase in membership; and

Whereas, The House of Delegates of the Medical Society of the State of New York adopted a resolution that, to defray the costs of county society member recruitment efforts, beginning in 1980 each county medical society will be reimbursed 50 percent of any annual net gain in the state society dues remitted by the county society; therefore be it

Resolved, That the American Medical Association adopt a plan to annually reimburse the county or local medical society 50 percent of any net gain in AMA dues remitted by that society to help defray the local cost of AMA member recruitment efforts.

AMA HOUSE OF DELEGATES ACTION: Referred to the Board of Trustees to be considered as the Board develops its dues proposal for the Annual Meeting in 1980.

Resolution: 22(I-79), Dual Disease Classification of Alcoholism

Whereas, In June 1977 the House of Delegates of the American Medical Association adopted Resolution 32 which stated that the AMA endorses the dual classification of alcoholism under both the psychiatric and the medical sections of the International Classification of Diseases; and

Whereas, The Ninth International Classification of Diseases has reached publication and it does not include this dual classification; therefore be it

Resolved, That the American Medical Association reaffirm its policy endorsing the dual classification of alcoholism under both the psychiatric and the medical sections of the International Classification of Diseases and convey this position to the editors of ICD.

AMA HOUSE OF DELEGATES ACTION: Adopted

Resolution: 23(I-79), Continuing Medical Education Credits

Whereas, Many practicing physicians participate as part-time or voluntary clinical faculty in the education of medical students and resident physicians; and

Whereas, This activity requires extensive preparation time and contact time with students; and

Whereas, Such activity constitutes, by virtue of interchange of ideas and sharing of knowledge, a high order of physician education; therefore be it

Resolved, That the American Medical Association recognize the importance of instruction of medical students and resident physicians by part-time or voluntary clinical faculty by changing credits earned in medical education teaching activities from Category III to Category I under a rigidly monitored system.

AMA HOUSE OF DELEGATES ACTION: Referred to the Board of Trustees

The following resolution was introduced by George T. C. Way, M.D., as Delegate from New York:

Resolution: 47(I-79), Accreditation of Health Data Banks

Whereas, In New York State a massive computerized data base for all in-hospital patient care has been created by State Government and financed by HEW as a pilot project in preparation for National Health Insurance; and

Whereas, This computer bank includes many specific data which can easily identify both the patient and the physician; and

Whereas, There is wide dissemination of these data not only to the 162 official and nonofficial agencies to which each hospital is subject, but also to a wide variety of other institutions, namely insurance companies, consumer groups, police departments, prosecuting bodies, and others; and

Whereas, The American Medical Association has established detailed guidelines for data banks which can reasonably insure the privacy and confidentiality of our citizen patients; and

Whereas, Efforts of the Medical Society of the State of New York to create an accrediting body for these health data banks have been rebuffed by government and other institutions; and

Whereas, The General Accounting Office in a report released in June 1979 has pointed out that accreditation done by the JCAH far exceeds the quality of that done by Federal or State Government; and

Whereas, It is obvious that widespread use of the computer for health data must be subject to an accreditation process that addresses the issue of confidentiality and privacy; therefore be it

Resolved, That the American Medical Association recommend through its Commissioners to the Joint Commission on Accreditation of Hospitals that a program for the accreditation of health data banks be established in accordance with the guidelines of the AMA as they pertain to the confidentiality and privacy of patient records; and be it further

Resolved, That the AMA through its activities in Washington encourage the concept of the accreditation of health data banks within the private sector as being in the best interests of the citizens of this Country.

AMA HOUSE OF DELEGATES ACTION: Referred to the Board of Trustees, and report back to the House of Delegates at the 1980 Annual Meeting.

The following reports respond to New York resolutions submitted at the Interim Meeting in 1978 and at the Annual Meeting in 1979. House action on these reports is indicated:

Medical Liability Insurance Coverage as Mandatory Requirement for Hospital Staff Appointment (Resolution: 78(I-78)

REPORT T OF THE BOARD OF TRUSTEES

At the 1978 Interim Meeting, Resolution 78 and a suggested substitute were referred to the Board of Trustees for consultation with the American Hospital Association and the Joint Commission on Accreditation of Hospitals. Report KK of the Board of Trustees was submitted to the House of Delegates at the 1979 Annual Meeting and was referred to the Board for further clarification as to whether or not hospitals were mandating medical liability insurance coverage for medical staff members while "going bare."

Resolution 78(I-78) urges that "medical liability insurance shall not be a mandatory requirement for hospital medical staff appointment" and that all hospitals requiring medical liability insurance of their voluntary professional staffs shall themselves be expected to carry liability insurance for their professional employees including salaried physicians in amounts equal to the limits of those of the majority of their voluntary medical staff members.

The suggested substitute resolution would leave it to the medical staff "to determine qualifications of hospital medical staff appointment including such questions as whether or not professional liability insurance should be required."

As directed by the House of Delegates, the Board of

Trustees communicated with the American Hospital Association and the Joint Commission on Accreditation of Hospitals to ascertain whether either or both associations had established policy on medical liability insurance coverage as a prerequisite for hospital medical staff appointment. The American Hospital Association informed the Board of Trustees that the Association has no official policy on this subject. The AHA also informed the Board that it knows of only a few hospitals "going bare."

The Joint Commission on Accreditation of Hospitals cited page 53, lines 3–14, of the 1979 *Accreditation Manual for Hospitals* (Governing Body and Management section), which states:

> There shall be an insurance program that provides for the protection of the physical and financial resources of the hospital. There should be appropriate coverage for damage to or destruction of hospital property, for financial loss resulting from theft or from uncontrollable business interruptions, and for financial loss resulting from liability imposed by law for actions of the members of the governing body, medical staff, and hospital personnel, including those serving on a voluntary basis. To the extent available, insurance should cover liability of the hospital arising out of malpractice or error in rendering or failing to render medical, surgical, dental or nursing treatment and the like, including dispensing of food and medications, by all individuals for whose acts the hospital may be held legally responsible.

The Joint Commission on Accreditation of Hospitals also informed the Board of Trustees that the above language in the 1979 *Accreditation Manual for Hospitals* was deleted and does not appear in the 1980 *Accreditation Manual for Hospitals* that is effective for accreditation purposes January 1, 1980.

Since 1975, a hospital's requirement mandating professional liability insurance coverage as a prerequisite for medical staff privileges has been challenged in at least four jurisdictions and the United States Supreme Court denied review of one of these cases on October 29, 1979. The reported decision in each case upheld as reasonable the hospital's requirement mandating professional liability insurance coverage at the commonly prevailing level of policy limits as a condition for staff privileges. The courts have noted the following justifications for such a requirement where professional liability insurance coverage is generally available: the importance of physicians being able to compensate patients for injuries for which they may be legally responsible; the increase in the cost of the hospital's insurance coverage if medical staff members are not covered; adverse effects on patient care to the extent that physicians without coverage might not participate in the care of patients with serious problems and might be tempted to practice defensive medicine; and the inability of a staff member to contribute with the hospital or with other staff members as joint tort-feasors to the fund to compensate a victim for settlement or judgment purposes.

A dissent was written in one case on appeal to a state supreme court. The dissenting justice expressed the opinion that "the hospital has neither a legal nor a moral duty to protect the doctor's patients from the doctor." The majority opinion that has been followed by an appellate court in another jurisdiction noted that "we can envision situations, however, where such a rule would not be reasonable in its application. Then we must remind hospitals and their governing bodies that certain of the powers they exercise are fiduciary powers and must be exercised reasonably, and for the good of the public which they serve." This dicta of the court relates to the situation where insurance coverage would not be available at a reasonable cost to medical staff members.

These court decisions reflect the courts' recognition of the practical problems hospitals face in a litigious society and the often important consideration of ease of settling cases in which more than one defendant is named. Whether the policy established by these courts should be translated into a hospital rule that the courts of all jurisdictions would be willing to uphold is a question that has been addressed primarily by the medical profession.

In 1965, the AMA House of Delegates approved the following policy statement:

> "Doctors should be encouraged to carry professional liability insurance that is adequate. However, this encouragement toward self-protection should come from local medical societies and not as a result of coercion on the part of a hospital.
>
> "There are legal as well as professional reasons why the evaluation of a physician's qualifications for staff privileges should not, in effect, be delegated to an insurance company."

Several state medical associations and the organized medical staffs of a number of hospitals have agreed upon the importance of a requirement that physician members of hospital medical staffs should have adequate liability coverage and that information on a staff member's current coverage be provided when applying for initial or continuing staff privileges. Organized medical staffs have also been urged to make an independent investigation once they learn of a member's adverse malpractice experience. Such information should be taken into consideration in the evaluation of the individual physician's continuing professional competence, character, and judgment as it relates to his continuing eligibility for medical staff privileges. If the medical staff carries out its functions responsibly, there should be no danger of an arbitrary application of a rule that would equate financial responsibility with eligibility for medical staff privileges.

Following a review of the reported court decisions and the information provided by the American Hospital Association and the Joint Commission on Accreditation of Hospitals, the Board of Trustees is of the opinion that each hospital medical staff should determine for itself whether it will require professional liability insurance coverage at the commonly prevailing level of policy limits as a condition for membership on the hospital medical staff. The Board believes that if the organized medical staff makes this determination, the members of the medical staff should comply with the requirement.

The Board of Trustees also believes that if equity demands that voluntary staff members should have insurance coverage so that the burden of financial loss would not fall entirely upon the hospital, then salaried hospital physicians should likewise be covered by adequate insurance or protected financially through self-insurance mechanisms established by the hospital so that the burden would not fall unfairly upon the members of the voluntary medical staff.

The Board of Trustees recommends that this report be adopted in lieu of Resolution: 78(I-78) and the suggested substitute resolution.

AMA HOUSE OF DELEGATES ACTION: Adopted

Pre-Hospital Admission Workups (Resolution: 127(A-79)

REPORT D OF THE COUNCIL ON MEDICAL SERVICE

At the 1979 Annual Meeting, the House of Delegates referred Resolution 127 through the Board of Trustees to the Council on Medical Service for study. The resolution would encourage (1) hospitals to accept preadmission workups performed in such out-of-hospital settings as private laboratories and physician's offices, and (2) third parties to reimburse for such workups on both surgical and medical patients, by having AMA urge state and local medical societies to develop reimbursement guidelines for such workups in cooperation with local hospitals, hospital associations, and third-party payors.

AMA policy already supports the concept of preadmission testing spoken to by this Resolution. At the 1979 Annual Meeting, the House of Delegates adopted the following statement as a part of Board of Trustees Report II:

> "The American Medical Association encourages increased use of out-patient facilities, and use of these facilities for diagnostic testing prior to hospitalization whenever medically feasible."

In recommending referral rather than adoption of Resolution 127, however, the Reference Committee indicated a need for further study as to what type of "guidelines," if any, would be feasible in this area.

The Council on Medical Service has discussed this subject further with representatives of the health insurance industry (Blue Cross and Blue Shield Associations and the Health Insurance Association of America) and the American Hospital Association, and has received written testimony on the subject from the resolution's sponsor and from the Federation of American Hospitals. Both insurance groups indicated that a significant deterrent to more widespread acceptance and third-party coverage of such preadmission testing was a lack of controls over the quality of laboratory, x-ray, and other diagnostic work done outside the hospital. Comments received from hospital representatives were supportive of preadmission testing, but agreed with the need for careful surveillance of the adequacy of such testing from the standpoint of malpractice considerations. It was noted that, because preadmission findings become a part of the hospital record, the hospital is as responsible for their accuracy as it is for work done in-house.

Insurance industry representatives also indicated a need to distinguish for payment purposes between true preadmission testing which is performed when hospitalization has already been decided on and which in essence avoids the costs of a day's hospitalization, and routine outpatient diagnostic testing such as that performed in a periodic health examination. It was their belief that coverage would be appropriate for the former, but not the latter — even on those occasions where such routine testing uncovered conditions necessitating hospitalization. The Council believes that such a distinction between types of testing is reasonable, but questions whether payment should not also be made for routine outpatient testing which results in hospitalization, particularly since the incidence of such situations would seem to be relatively low.

Insurance representatives also indicated that some policies which "pay" for preadmission testing would not pay for such testing should the tests produce findings necessitating a delay in or deferral of hospitalization.

With regard to the "guidelines" called for by the resolution, the Council believes that it would be difficult to develop guidelines for patient reimbursement which were concrete enough to provide meaningful assistance on the one hand and which avoided legal problems on the other. However, the Council believes that preadmission testing does have important potential for cost containment, and will continue its discussions with health insurers and the hospital industry in an effort to identify mechanisms which could help assure the quality of outpatient preadmission testing and thus encourage wider third-party coverage for such testing. The Council would also encourage medical staffs to initiate similar discussions locally with hospital administrators and third-party payors, so as to develop policies which would allow acceptance of preadmission testing by the institution concerned.

The Council recommends that this report be adopted in lieu of Resolution: 127(A-79).

AMA HOUSE OF DELEGATES ACTION: Adopted. The Council on Medical Service to report back to the House of Delegates at least biennially.

AMA Programs to Assist Indochinese Refugees (Resolution: 176(A-79)

REPORT W OF THE BOARD OF TRUSTEES

At the 1979 Annual Meeting, the House of Delegates adopted Resolution 176 which asked that the AMA "explore the development of a program to respond to the medical emergencies of the increasing number of refugees known as 'boat people' and, if found feasible, that the Board of Trustees implement the program as soon as possible."

During the ensuing weeks, the AMA has contacted various governmental departments and agencies and private sector organizations to determine what the AMA might do to be of assistance in providing medical services for these unfortunate people.

The research revealed that there are a number of public agencies and private organizations engaged in a variety of activities to aid refugees. However, there is no single coordinating body nor specific source of funding for the profusion of programs. The problem is compounded by diplomatic and political barriers which confront the U.S. government.

To expedite the placement of physicians who have already volunteered to serve, the AMA presently is referring physicians to one of several private, voluntary organizations recruiting health teams to serve in refugee camps in Thailand. For the moment, a minimal number of physicians are needed for short-term stays of three months. Most of the current refugee camp programs are seeking physicians willing to serve for six months, with a preference for volunteers able to sign on for one or two years.

A recruitment letter has been sent by the AMA to members of the American Association of Volunteer Physicians, veterans of the AMA Volunteer Physicians for Vietnam program, asking them to volunteer their services in the United States or overseas to help the refugees. Responses to that letter are now being received.

On the domestic side, the AMA has contacted the state and local medical societies to encourage the development of programs to provide medical care for Indochinese refugees resettling in the United States. The Minnesota Medical Association has a program in place that it believes will provide adequate medical care for refugees. A copy of the program has been sent to state medical associations as one example of refugee assistance.

Also, the AMA has responded to a request by the Center for Disease Control to recruit volunteer physicians to provide immediate medical care for refugees at major U.S. ports of entry. In addition, the AMA is requesting state and local medical societies to assist in the identification of physicians willing to serve overseas in refugee camps. To minimize confusion, the AMA will coordinate placement of volunteer physicians overseas as positions become available. Names of physicians willing to serve overseas should be referred to the Office of International Medicine at AMA Headquarters.

To develop a long-range solution to refugee problems, whether triggered by political or natural causes, the AMA has asked the National Council for International Health (AMA is a sponsor of NCIH) to develop the capability to coordinate the activities of U.S. private, voluntary organizations wishing to provide assistance for refugees both in the United States and in foreign countries.

The refugee situation is in a state of continuous change. However, it is evident that the refugee problem will be with the world for a long time to come. Therefore, the AMA will continue to monitor domestic and international programs to aid refugees and continue to seek ways the AMA can be of help.

AMA HOUSE OF DELEGATES ACTION: Adopted. Follow-up reports are to continue to be submitted to the House of Delegates as appropriate.

Important Actions of the House of Delegates Included:

1. Membership was a dominating issue at the Interim Meeting of the House of Delegates. Noting that the AMA's "power to do good" depends on its numerical strength, President Hoyt D. Gardner, M.D., called on all members to become active recruiters. Executive Vice President James H. Sammons, M.D., urged the delegates to ask their local societies to reexamine their membership activities. The reference committee considering financial affairs reported that in the absence of substantial numbers of new members, expenses will exceed income in 1981. The committee added: "This House must now set itself to recruit new members with new resolve to minimize the amount of any dues increase that the Board of Trustees may be obliged to propose at the Annual Meeting in 1980."

> A report by the Council on Long Range Planning and Development, urging support for membership programs now underway, was adopted by the House. The report points out that "a critical membership problem exists at all levels of the Federation, but particularly at the national level, which seriously threatens the future of organized medicine." The House commended the Board and the Executive Vice President for their fiscal leadership and called on the Board to "make every effort" to increase the membership.

In its report the Council on Long Range Planning and Development stressed that long-term strategies are needed to resolve the long-term membership problem and that the only feasible strategy involves reevaluation of the structure of the Federation. A related report from the council described models for changing the AMA's organizational structure and invited comment from state, county, and specialty societies before a final report is submitted to the House at the 1980 Annual Meeting.

2. Medical education will come under intensive review with an agenda of issues that ranges from admission to medical school and residency training to licensure and evaluation of physicians. In filing a report from the Council on Medical Education, the House said the concepts and principles of the report are to become "an agenda of issues for discussion, followed by the development and review of more specific recommendation." The council's report, "Future Directions for Medical Education," states a need for the restructuring of the third and fourth years of medical school, creation of a "comprehensive residency" for all first-year residents, and establishment of a committee of "public and professional statesmen" to make policy recommendations to the council.

> The House adopted a council report describing AMA activity in continuing medical education accreditation since the Association's withdrawal from the Liaison Committee on Continuing Medical Education last summer. The report pointed out that the new Committee on the Accreditation of CME has reviewed 34 applications and will review the standards and procedures for accreditation.

Another council report adopted by the House stresses the need for the AMA and all physicians to support continuing efforts to eliminate the deficit of minority physicians. The House also called for support of policies and legislation that will increase the number of physicians training for careers in biomedical research.

3. AMA policy on national health insurance, following the principles of Resolution 62 of the 1978 Interim Meeting, was reaffirmed by the House of Delegates. Resolution 62 called

on the Board of Trustees to sponsor, only if necessary, legislation to require minimum standards of adequate benefits for health insurance policies, with deductible and coinsurance; to include a system of uniform benefits provided by federal, state, and local governments for those who cannot provide for their own medical care; to make catastrophic insurance coverage, with a deductible and coinsurance, available from the private insurance industry through a nationwide program; and to provide for administration at the state level with national standardization through federal guidelines.

> In a related action on NHI, the House adopted a resolution stating that the AMA will "continue to advocate in a positive manner the superiority of a voluntary, free-choice method of medical and health care delivery compared to a system dominated and controlled by the federal government."

4. The House urged Medicare officials to stop misusing the term "reasonable charge."
5. The House opposed the extension of health planning activities.
6. The House called for broader coverage of children by health insurers.
7. The House rejected a proposal that all AMA council members be elected by the House of Delegates.
8. The House advocated revision of the Delaney Clause of the FDA law to require risk-benefit or comparative risk assessments of food additives.
9. The House called for development of more sites for disposal of low-level nuclear wastes.
10. The House urged development of strict new regulations curbing smoking on airliners.

Respectfully submitted,

George L. Collins, Jr., M.D., *Chairman*

NEW YORK DELEGATION TO THE AMERICAN MEDICAL ASSOCIATION (SUPPLEMENTARY)

To the House of Delegates, Ladies and Gentlemen:

129TH ANNUAL MEETING
CHICAGO, ILLINOIS
JULY 20 TO 24, 1980

At the 129th Annual Meeting of the American Medical Association, Chicago, Illinois, July 20 to 24, 1980, the New York Delegation included the following:

Delegates: Edgar P. Berry, John H. Carter, John L. Clowe, George L. Collins, Jr., Paul M. DeLuca, Ralph S. Emerson, John A. Finkbeiner, Carl Goldmark, Jr., Joseph J. Kaufman, Morton Kurtz, Bernard J. Pisani, Milton Rosenberg, Ralph M. Schwartz, Charles D. Sherman, Jr., and George T. C. Way.

Alternate Delegates: Charles N. Aswad, G. Rehmi Denton, James M. Flanagan, Joseph R. Fontanetta, Allison B. Landolt, George Lim, Richard N. Pierson, Jr., Joseph F. Shanaphy, William C. Stein, and M. Theodore Tanenhaus.

Section Delegates: Russel H. Patterson, Section Delegate, American Association of Neurological Surgeons.

Also: James M. Blake, Gerald D. Dorman, William Felch, Henry I. Fineberg, Louis W. Giordano, Robert M. Kohn, Dattatraya Lanjewar, George J. Lawrence, Jr., Edward Siegel, Victor J. Tofany, and Tamarath K. Yolles.

County Medical Society Executives: Coleman M. C. Fineberg, Barbara Francis, Chris Hynes, Mary Alice Hughes, Edward Lucy, Norman D. Steingraber, Joseph L. Stile, and Richard F. Treccase.

Medical Student Representatives: Charles J. Cattano, Margaret Fisher, Arthur W. Perry, and Cy Stein.

Staff: Guy D. Beaumont, Irma A. Erickson, and Mark Kafka.

The Delegation held a business meeting on Friday, July 18, 1980.

On Saturday, July 19, 1980, the Delegation interviewed candidates for positions on the AMA Board of Trustees and Councils. Thirty-four candidates were given an equal opportunity to present their qualifications for the AMA offices they sought.

The Delegation held breakfast meetings each morning, Saturday, July 19th through Thursday, July 24th. Reports and resolutions coming before the House were thoroughly analyzed to afford those delegates specifically assigned to reference committees an opportunity to express the views of the New York Delegation at each reference committee hearing. Reference committee reports were again reviewed prior to their presentation to the House, and the Delegation discussed the consensus position that should be taken on the various matters coming before the House. The Hospitality Suite was open on Friday, Saturday, Sunday, Monday, and Tuesday.

On Monday, July 21, 1980, the New York Delegation hosted its annual "picnic" luncheon for AMA delegates, alternate delegates, and guests.

NEW YORK CANDIDATES FOR ELECTIVE POSITIONS ON AMA COUNCILS

Council on Medical Education	Charles D. Sherman, Jr., M.D.
Council on Medical Service	John A. Finkbeiner, M.D.

The election of John A. Finkbeiner, M.D., to the Council on Medical Service was announced in the House on Thursday, July 24, 1980.

ELECTIONS AND AWARDS

The AMA House of Delegates honored Russell B. Scobie, M.D., of Newburgh, New York, as the 1980 recipient of the Joseph B. Goldberger Award in Clinical Nutrition. Dr. Scobie has, for almost 40 years, concerned himself with the research and promotion of water fluoridation.

The Delegation was informed of the election of Russel H. Patterson, M.D., as chairman of the Association of Specialty Society and Armed Forces Delegates.

Dattatraya Lanjewar, M.D., who served as a member of the AMA Ad Hoc Committee on Foreign Medical Graduate Affairs, received a Certificate of Appreciation for his outstanding and meritorious service on behalf of International Physicians.

Reference Committee Assignments. Members of the New York Delegation serving on reference committees and convention committees were:

B. (Legislation) . . . . Ralph S. Emerson, M.D., *Chairman*
C. (Medical Education) . . . . John H. Carter, M.D.
Credentials . . . . Ralph M. Schwartz, M.D.
Tellers . . . . George Lim, M.D.

The following were assigned by the Chairman of the Delegation to be observers at reference committee hearings:

Constitution and Bylaws . . . . Drs. Aswad, Berry, and Collins
A. (Insurance and Medical Service) . . . . Drs. Denton and Finkbeiner
B. (Legislation) . . . . Drs. Fontanetta and Schwartz
C. (Medical Education) . . . . Drs. Landolt, Pierson, and Sherman
D. (Hospital and Medical Facilities) . . . . Drs. DeLuca, Kaufman, and Way
E. (Scientific — Public Health) . . . . Drs. Rosenberg and Tanenhaus
F. (Board of Trustees) . . . . Drs. Blake and Clowe
G. (Miscellaneous) . . . . Drs. Flanagan, Lim, Shanaphy, and Siegel
H. (Miscellaneous) . . . . Drs. Dorman, Kurtz, and Tofany

ACTIONS TAKEN BY THE AMA HOUSE OF DELEGATES AT THE 1980 ANNUAL MEETING ON NEW YORK RESOLUTIONS SUBMITTED AND REFERRED AT PREVIOUS MEETINGS

AMA Programs to Assist Indochinese Refugees (Resolution 176, A-79)

REPORT U OF THE BOARD OF TRUSTEES

At the 1979 Annual Meeting, the House of Delegates adopted Resolution 176 which asked that the AMA "explore the development of a program to respond to the medical emergencies of the increasing number of refugees known as 'boat people' and, if found feasible, that the Board of Trustees implement the program as soon as possible."

Report W of the Board of Trustees was presented to the House of Delegates and adopted at the 1979 Interim Meeting. This report cited activities to determine how the AMA might best assist this group of refugees. It noted that the AMA had asked the National Council for International Health to develop the capability for coordinating activities of private voluntary organizations, major health professional associations, government agencies, and universities to provide assistance for refugees in the United States and foreign countries. To this end and with a constantly changing refugee situation, the NCIH has established the Cambodian Refugee Health Clearinghouse. The AMA aided the Clearinghouse in establishing a data bank of qualified medical personnel and will continue to provide names of volunteers as they become available. AMA publications have publicized the current needs and activities of NCIH. The AMA has further helped NCIH to delineate requirements for emergency disaster volunteer teams as new refugee problems develop worldwide.

The AMA has historically provided refugee physicians with assistance in entering the U.S. health care system. This service was given to Cuban refugee physicians and over the past five years has helped more than 600 Vietnamese physicians become established in the medical community.

Refugee problems are in a state of continuous change and new refugee groups appear as social and political changes occur. The AMA will continue to monitor domestic and international programs and will provide all possible assistance to the National Council for International Health in order to firmly establish the Council's role as a coordinating body for these activities as well as a resource for information exchange.

AMA HOUSE DELEGATES ACTION: Filed. The Reference Committee suggested that the Board of Trustees continue to monitor the problems of the influx of large numbers of refugees from many foreign lands. The refugees are often not properly screened for disease which can result in public health problems. These diseases are sometimes difficult to diagnose because they are seen infrequently by American physicians. The Reference Committee further suggested that special attention be given to the additional issues and to informing members of the Association about the possible diseases that may be encountered when examining recent immigrants into the United States, whatever their native land.

Reimbursement for Member Recruitment (Resolution 21, I-79)

REPORT D OF THE BOARD OF TRUSTEES

Resolution 21(I-79) calls for the American Medical Association to adopt a plan to annually reimburse county or local medical societies fifty percent of any net gain in AMA dues remitted by that society to help defray the local cost of AMA member recruitment efforts. Resolution 21 was referred to the Board of Trustees at the 1979 Interim Meeting of the House of Delegates.

The Board of Trustees is sympathetic to this proposal. However, at the present time, the Association is testing the effect of several pilot programs that offer state or county societies a rebate on dues received from new members. Until the results of these test programs are available and evaluated, the Board is reluctant to endorse the proposal in Resolution 21.

AMA HOUSE OF DELEGATES ACTION: Adopted in lieu of Resolution 21, I-79.

Continuing Medical Education Credits (Resolution 159, A-79 and 23, I-79)

REPORT N OF THE COUNCIL ON MEDICAL EDUCATION

Resolution 159(A-79) and Resolution 23(I-79) as referred asked that part-time or volunteer faculty receive Category 1 instead of Category 3 credit toward the AMA's Physician's Recognition Award (PRA) for teaching medical students and resident physicians.

The Council on Medical Education (CME) and its Advisory Committee on Continuing Medical Education (ACCME) have frequently restated that physicians should not receive credit toward the PRA for carrying out activities that are a normal part of their professional activities. The value of teaching as a learning experience has made such an activity acceptable under Category 3 as partial fulfillment of the requirement for the PRA.

At the present time, the teaching of medical students and resident physicians when a part of a planned program of continuing medical education may be designated by an accredited institution or organization as meeting the requirements for Category 1 credit for the PRA.

As indicated in the Council on Medical Education Report J(I-79), the ACCME is carefully reviewing the requirements for the PRA. The CME anticipates the early receipt of this Committee's recommendations on modification of the requirements for the PRA. Comments will be requested from all components of the Federation before proposed changes in the requirements for the PRA are recommended by the CME to the House of Delegates.

CME believes that the intent of Resolution 159(A-79) and Resolution 23(I-79) can be achieved within the presently stated requirements of the PRA and recommends that this report be adopted in lieu of Resolution 159(A-79) and Resolution 23(I-79).

AMA HOUSE OF DELEGATES ACTION: Adopted in lieu of Resolution 159, A-79 and Resolution 23, I-79.

Confidentiality and Accreditation of Computer Data Banks (Resolutions 11 and 47, I-79)

REPORT E OF THE COUNCIL ON MEDICAL SERVICE

Report E of the Council on Medical Service addressed confidentiality issues identified in Resolutions 11 and 47 which were referred by the House at the 1979 Interim Session to the Board of Trustees for study.

The Reference Committee concurred with Report E on the need for a broad review of the many confidentiality-related issues, and noted that the testimony before the Reference Committee further supported this view. It was also noted that included in such a review would be an extensive consideration of mechanisms, including accreditation vehicles, for preserving the intent and observance of appropriate confidentiality policies. The AMA House of Delegates referred this report back to the Board of Trustees for further study.

Important Actions of the House of Delegates Included:

1. The Principles of Medical Ethics were revised by the House of Delegates. The new code was prepared by an ad hoc committee after two years of study and consultation with medical societies and individuals.

The text of the AMA's new Principles of Medical Ethics follows:

> *Preamble:* The medical profession has long subscribed to a body of ethical statements developed primarily for the benefit of the patient. As a member of this profession, a physician must recognize responsibility not only to patients, but also to society, to other health professionals, and to self. The following Principles adopted by the American Medical Association are not laws, but standards of conduct which define the essentials of honorable behavior for the physician.
>
> I. A physician shall be dedicated to providing competent medical service with compassion and respect for human dignity.
>
> II. A physician shall deal honestly with patients and colleagues, and strive to expose those physicians deficient in character or competence, or who engage in fraud or deception.
>
> III. A physician shall respect the law and also recognize a responsibility to seek changes in those requirements which are contrary to the best interests of the patient.
>
> IV. A physician shall respect the rights of patients, of colleagues, and of other health professionals, and shall safeguard patient confidences with the constraints of the law.
>
> V. A physician shall continue to study, apply, and advance scientific knowledge, make relevant information available to patients, colleagues, and the public, obtain consultation, and use the talents of other health professionals when indicated.
>
> VI. A physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve, with whom to associate, and the environment in which to provide medical services.
>
> VII. A physician shall recognize a responsibility to participate in activities contributing to an improved community.

2. The House authorized the Board of Trustees to take steps to eliminate the dual accreditation by the LCCME and the AMA's year-old Committee for Accreditation of Medical Education. The House also called for continued support of voluntary continuing medical education and asked state associations and specialty societies to support a moratorium on additional mandatory CME and mandatory recertification programs.

3. The delegates reiterated the Association's current policy on national health insurance. The AMA's policy remains to maintain the high quality of medical care within the

framework of private insurance. Current emphasis, as voted at the 1978 Interim Meeting, is to work within the four principles outlined to assure the availability of private insurance against the cost of catastrophic illness.

4. In a report adopted by the House of Delegates, the AMA Board of Trustees said it had undertaken a study of JCAH procedures in response to widespread criticism from the membership and cited several other recommendations it will make to the JCAH Board of Commissioners, including streamlining the accreditation process and placing major emphasis on improving the quality of the survey process in short-term, acute-care hospitals.

5. The House reaffirmed its policy against preferential subsidies to any one form of health care delivery, urged the federal government to stop giving subsidies to HMOs, and protested the use of federal tax money for advertising to promote HMOs. The AMA will continue its policy of neutrality and fair market competition among all systems of health care delivery, recognizing that the presence of multiple alternative systems enables patients and physicians to exercise true choice.

6. The AMA will devote greater emphasis to its legislative and other efforts to assure equitable and realistic levels of reimbursement for physician services under the Medicare and Medicaid programs. Concentrated effort will be focused on the repeal of the federal government's "economic index."

7. Two resolutions passed by the House asked the AMA to recommend that CT scanning equipment should be readily available for patients, and that efforts by health systems agencies to block the acquisition of scanning equipment are deemed to be detrimental to the quality and cost effectiveness of health care.

8. The House adopted a resolution which proposed that the National Institutes of Health or other federal agency fund an independent and impartial study and clinical trials to evaluate the efficacy and safety of chiropractic.

9. The need for expanded AMA membership was emphasized, and the House lifted the moratorium on adding specialty society representatives in the House.

Respectfully submitted,

George L. Collins, Jr., M.D., *Chairman*

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⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman*.

During the reference committee hearing there was a discussion of the importance of bringing resident staff into our State and county medical societies. It was recommended that the county medical societies and the State Society establish mechanisms to facilitate residents acquiring membership in these respective societies to encourage their interest in organized medicine and its activities.

The Committee would like to call the House's attention to the fact that resolutions addressing this problem have been introduced and referred to the Reference Committee on Bylaws. It was also emphasized that full-time medical faculty be encouraged to join forces with organized medicine.

It was also pointed out in the discussion that the State Society has encouraged some medical schools and faculties to become members of the Society, and the Committee recommends that these efforts be extended across the State.

Your Committee noted that Dr. Finkbeiner was elected to the Council of Medical Services of the AMA.

⟹ Your reference committee recommends that the annual and supplementary reports of the New York Delegation to the American Medical Association be filed for information.

⟹ . . . *The annual and supplementary reports of the New York Delegation to the American Medical Association were* **FILED FOR INFORMATION** . . .

COMMITTEE ON DISTRICT BRANCHES

To the House of Delegates, Ladies and Gentlemen:

The members of the Standing Committee on District Branches are as follows:

Richard D. Eberle, M.D., *Chairman*	Onondaga
Sheppard Arluck, M.D.	Livingston
Stephen W. Blatchly, M.D.	Tompkins
Samuel Cytryn, M.D.	Nassau
Nathan M. Greenstein, M.D.	The Bronx
George H. Hanlon, M.D.	St. Lawrence
Allison B. Landolt, M.D.	Westchester
Michael J. Lynch, M.D.	Washington
George E. Taylor, M.D.	Allegany
Nicholas P. Teresi, M.D.	Albany

In order to ensure proper balance upstate and downstate, task force assignments were allocated to each district branch president on the basis of the district branch represented by him. The following matters were considered during the meetings held by the committee on September 16, 1979, February 13, 1980, and May 21, 1980:

Discussion ensued concerning mechanisms which would encourage physicians to become active participants in the district branches.

The representative from the Seventh District Branch stated that the Seventh District Branch is actively involved, and physicians in the district are interested in the programs of the branch. A dues structure enables the district branch to avail itself of the services of an executive director, who is the liaison between physicians in smaller counties and the urban counties. The Seventh District Branch has a Legislative Committee, and is working toward addressing Health Care Planning and Continuing Medical Education. HSAs and the PSRO are other areas of prime interest to the branch. Meetings are also held during planned trips outside of the United States for members of the branch.

It was noted by the Committee that the MSSNY/AMA Video Clinics on CME have influenced physicians to attend the meetings.

Members of the committee commented on the following task force assignments:

I Realignment of District Branches — Geographical — To consider the following subjects and all aspects of realignment:

a) relation to planning authorities; e.g., HSAs
b) relation to government — county, regional, state, etc.
c) educational facilities — medical centers, large hospitals

It was suggested that the basis of the district branches may only be political, that is, to supply names for the Nominating Committee which is made up of representatives of each district, and that the need for realignment should be held in abeyance in order that the realignment formula will fit the political, social, and socioeconomic needs of the membership of MSSNY. The functions of the districts and the importance to membership, county societies, MSSNY, and the public should prior be determined.

The President of the Medical Society of the County of Orange, Inc., has requested that District 9 be divided. Orange County Medical Society suggested that a new District 10 be formed, consisting of the counties of Dutchess, Orange, Putnam, Ulster, and Sullivan. In his communication to the President of the Ninth District Branch, the President of the Medical Society of the County of Orange, Inc., pointed out that the number of members in this group would not be inconsistent with that of Districts 4, 6, and revised District 3. Orange county requested a revision of the Bylaws of MSSNY in order that a councilor represent this new district.

The Committee was of the opinion that realignment should not take place without the approval of each county medical society concerned. Perhaps there would be some merit in increasing the number of districts. Realignment should not be accomplished necessarily for political advantage alone, but, rather should concern all physicians in a particular county in many other ways. District Branches seem to align with educational facilities to some degree, and probably should continue to do so. The district branches are related also to medical service and referral patterns.

II Influence of District Branches within State Medical Society policy making procedure:

a) representative of district branch at Council meetings
b) relation of councilor to district branch
c) structure of district branch within the State Medical Society structure (includes review of Article XVII — Bylaws of MSSNY)
d) political influence of district branch within the State Medical Society
e) communication between district branches and MSSNY

Direct election of councilors by district branches for a stronger input of district branches to MSSNY was discussed. The Bylaws of MSSNY now provide that the Nominating Committee of MSSNY shall consist of eleven members, one from each district branch, and two members-at-large. The Committee wants to point out that the Bylaws also provide that "the Nominating Committee shall be appointed by the President from a list of not less than three nor more than five names submitted by the respective District Branches." Names are not considered from other sources. At the meeting of the Council of MSSNY each councilor reports regarding the activities of the specific district assigned to him by the President. In these respects the district branches are now represented on the Council of MSSNY.

It was requested that communication could be improved with the district branches by informing the president of each district branch, in addition to the county medical societies, of the various directives and activities of MSSNY, such information to flow from MSSNY directly.

III Structure of District Branches to include:

a) Constitution and Bylaws of each district
b) lines of authority
c) how do members have input?
d) relationship to each county
e) communications with county societies
f) method of election of officers and delegates
g) staff support
h) financial support — where obtained, how, how much

The bylaws of each district branch should be updated to take into consideration new functional concepts within the framework of the districts, thereby having the bylaws of all of the districts in conformity. Conducting four meetings during the year, establishing committees within the branches, and utilizing the assistance of the regional representatives of MSSNY would encourage participation. In this way a better perspective of the membership would be obtained in regard to the submission of nominations for positions on the Council, the AMA delegation, committees, etc.

The structure of the district branches would be strengthened by an increase in financial assistance from the local area to fund a director to handle communication with MSSNY and the county medical societies in regard to the activities of the districts.

IV Functions of District Branches

a) educational
b) political
c) legislative
d) social

A report was submitted to the Committee in regard to the following functions:

Educational: CME programs conducted by the district branches — continuation of the videocassette programs which provide for the educational needs of the members should be expanded to include more geographical areas. The natural centers of education within each district could be the source of much of this educational activity.

Political: District branches now act as a political force and caucus as a group at the House of Delegates, representing specific geographical areas in common problems, and should continue to do so.

Legislative: District branch activity in this area has been beneficial and should be expanded. There is a need for the district branches to cooperate and address problems relative to each of the counties.

Social: District branch meetings afford an opportunity for physicians from a much broader area than the county medical society to exchange ideas and discuss mutual problems. The meetings should include the interests of all county societies of each district branch. These meetings may be held in New York State or outside of the United States.

The Committee agreed that the above areas are important, and should be strengthened in every way possible. Political function should include external politics as well as internal. Committees on the district level is an excellent way for district branches to further their suggestions. The representatives from county committees could coordinate activities within the district and strengthen them on a realistic level. This would lead to a closer identification with the State Society.

Written résumés of activities of the various district branches and suggestions for improvement were received from the area representatives of MSSNY.

At its meeting on March 20, 1980, the Council approved the recommendation of the Committee that communication be improved with the district branches by informing the president of each district branch, in addition to the county medical societies, of the various directives and activities of MSSNY, such information to flow from MSSNY directly.

The Council also approved the following summary submitted by the Committee in its report to the Council on March 20, 1980:

1) that district branches can and should serve important functions within MSSNY including political, legislative, educational, and social, for the smaller counties. There may be other important functions;
2) that input into the functional and policy making structure of MSSNY can best be accomplished through a regional approach method as the district branch concept;
3) that no district branch will serve its functions well without a solid financial and staff support more properly structured at the regional and local level rather than from MSSNY;
4) that matters such as Bylaws changes, direct election of councilors by district branches, realignment or changes of district branch geographical structure should be held in abeyance until the district branches demonstrate their ability to function successfully;
5) that no change in alignment should be mandated without the concurrence of each county directly concerned;
6) that physician input in health planning could be augmented by an active district branch involvement; and
7) that smaller county participation can only be strengthened in the district branch concept and that this will strengthen and enlarge the overall membership involvement.

At its meeting on May 21, 1980, the Committee discussed improved communication from State to district and county level, and at its meeting on June 26, 1980, the Council approved the recommendation of the Committee that the duties and role of councilors vis-a-vis improved communication in their relationship to the district branches as it pertains to the Council be promulgated and emphasized.

It must be emphasized that district branches should start to obtain solid financial and staff support at the regional and local level, and begin to structure their programs to relate to the important functions outlined in this report.

Respectfully submitted,

Richard D. Eberle, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman.*

There was extensive discussion on the role of the District Branches at the reference committee hearing. The general consensus was that each district branch should continue to function in accordance with the needs of their geographical locale.

⟹ Your reference committee recommends that the report of the Committee on District Branches be filed for information.

⟹ . . . *The report of the Committee on District Branches was* **FILED FOR INFORMATION** . . .

DISTRICT BRANCHES

Second District Branch

To the House of Delegates, Ladies and Gentlemen:

The Second District Branch of the Medical Society of the State of New York consists of the medical societies of the counties of Nassau and Suffolk. Its membership is over 3,300 physicians. The officers are as follows:

President	Samuel Cytryn, M.D., Nassau
1st Vice-President	Noel H. Miller, M.D., Suffolk
2nd Vice-President	Lawrence Ravich, M.D., Nassau
Secretary	William H. Bloom, M.D., Suffolk
Treasurer	Sears E. Edwards, M.D., Nassau
Delegate (Concludes term in 1980)	Leonard Weitzman, M.D., Suffolk

As can be seen, the counties alternate positions each term of office in an equitable fashion. The administrative duties of the Branch are assumed by the county whose member happens to be President. The Executive Director and secretarial staff thereby become unpaid employees of the State Medical Society.

The Executive Committee of the Branch has held one meeting this year to discuss the place of District Branches in the schema of the State Society. The members were well aware of the platitudes of "mutual social, educational, and political endeavors as promulgated by the Council and its Committees." In the case of the Second District, the only reason for existence appears to be political:

1) Sending a member to the Nominating Committee;
2) Electing or selecting a delegate to the House of Delegates; and
3) Forwarding the names of potential nominees.

Socially and educationally the two counties are self standing. Each Academy of Medicine is a certifying agency for Continuing Medical Education and each county runs a full quota of programs for its constituency. Neither county seems interested in unified programs. Socially the counties spread over a 100 mile span and distances and travel time are prohibitive.

The District Branch system can be made to function, but not if it remains with its present distribution of nine district branches. The demography of our State has greatly changed since the original District Branch system was devised. The First, Second, and Ninth District Branches comprise approximately 70% of the membership and yet have only about 33% of the vote (excluding the two members at large) on the Nominating Committee and quite possibly on other State Society committees. The number of district branches need to be increased, perhaps doubled. We can use the districting as promulgated by the Federal government in the PSRO distribution. These districts were based on size and demography and were not politically motivated.

We are continually complaining of the inaction of our membership, yet some counties have shown great activity regarding political, socioeconomic, and medical-legal projects. District branches, as constituted presently, may be too large and unwieldly in membership to get unified and concerted action or too large in areas so that the geographic needs are different for each area.

The Second District Branch feels that a complete reassessment of the system is necessary, if the system is to be revitalized and made viable. We wish to deal with the realities of the 1980s and not with the status quo of the 1940s. We want New York to again be the number one medical society in the nation.

Respectfully submitted,
Samuel Cytryn, M.D., *President*

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⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Second District Branch be filed for information.

⟹ . . . *The report of the Second District Branch was* **FILED FOR INFORMATION** . . .

Third and Fourth District Branches

To the House of Delegates, Ladies and Gentlemen:

The Third and Fourth District Branches of the Medical Society of the State of New York have scheduled their combined Annual Meeting for September 18, 1980, in Saratoga Springs, New York.

During the past year, Third District Branch Councilor, John H. Carter, M.D., and Daniel F. O'Keeffe, M.D., Councilor, Fourth District Branch, have met with officers and members of their respective district branches, to outline the programs and actions of the Medical Society of the State of New York. Drs. Carter and O'Keeffe have also been active in bringing to the Council of the MSSNY, those problems specifically relating to their respective districts and, in general, to the problems facing organized medicine in New York State.

The annual meeting, scheduled for September, will bring together members of the district branches, so that they may bring to their councilors and delegates, resolutions and positions relative to the meeting of the MSSNY House of Delegates.

A special report will be made to the 1980 House of Delegates immediately following their meeting of September 18.

Respectfully submitted,

Nicholas P. Teresi, M.D., *President*
Third District Branch

Michael J. Lynch, M.D., *President*
Fourth District Branch

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⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Third and Fourth District Branches be filed for information.

⟹ . . . *The report of the Third and Fourth District Branches was* **FILED FOR INFORMATION** . . .

Seventh District Branch

To the House of Delegates, Ladies and Gentlemen:

The Seventh District Branch continues to function as an integral part of the medical community of the Genesee Valley-Finger Lakes Region of Western New York State. It is duly recognized as the spokesman for organized medicine in this area by the Finger Lakes HSA, PSRO, Blue Shield Plans, Workers' Compensation Board, New York State Department of Health, etc. It consists of the highly organized and sophisticated urban Medical Society of the County of Monroe, and six less structured rural medical societies, each united by a close camaraderie due to intimate local professional interaction. Through the leadership of a Medical Advisory Committee and an Executive Director, the component county units have formed a cohesive coalition to represent the interests of the region's practicing physicians.

Economically, the Branch provides to its members benefits in the area of various insurance coverages. This socioeconomic role is highlighted by the Annual Convention cosponsored with the Eighth District Branch. This year the event was held on St. Thomas, U.S. Virgin Islands. The program consisted of personal financial planning with representatives from bankers, brokers, and insurance agents. Reports were also delivered by leaders of the Blue Shields of Rochester and Western New York. Difficulties in implementing the Medicare Part B reimbursement mechanism in Upstate New York was a strong bone of contention. It served as a harbinger of anticipated problems with the planned institution of MMIS procedures in our region this fall. Meetings were held with representatives of the Medical Society of the State of New York, the State Department of Social Services, and Bradford Administrators which resulted in an easing of the paperwork burden, so disruptive to the Medicaid program in other areas of the State.

Health planning is an intensely active arena in this age of limited resources and overwhelming inflation. The Branch formed a mechanism to draw upon the pool of expert talent within this medical community. This was modeled after a concept developed by the Minnesota State Medical Society. Resource groups were formed to work along with the Finger Lakes HSA in its review of medical concerns of the region. The groups were involved with the applications of two Rochester hospitals for cardiac imaging capability; the expansion of the GVGHA HMO to a second site in Monroe County; the development of the Hospice concept; and an investigation of prepaid health care. Inherent weaknesses in the scheme were the failure of the HSA to totally commit itself to the development of such an out of house influence in its deliberative functions, as well as a lack of cohesion within the medical community itself.

The county societies are all aware of the importance of liaison with elected representatives in helping to influence their decisions which affect both physician and patient alike. Monroe County has a strong committee structure operative in this political area. The rural counties are served by legislators who hold key positions in both Congress and the State Legislature. To help draw upon these resources on a recognized level, the Branch this year formed a Legislative Committee. By focusing on a few prime issues we hope to present a unified front which will be of significance to these officials. In addition, the Branch has joined with the Genesee Region Chapter of the New York State Public Health Association in health issues forums, which serve to recognize communal interests involving the total range of health related matters. The implementation of agreed upon proposals will require interaction with appropriate levels of government, and involve all elements of the medical-health care team.

Continuing medical education is an acknowledged requirement to improve the quality of medical care among the practicing physicians. The Branch hopes to work with sponsoring organizations in developing local programs available to the entire membership. This summer cosponsorship was given to a presentation of the Ophthalmology Division of the Park Ridge Hospital. In the spring, arrangements were made for the Medical Liability Mutual Insurance Company to present a program on improving practice skills so as to avoid unwarranted exposure in this aspect of patient care.

Respectfully submitted,

Sheppard Arluck, M.D., *President*

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⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Seventh District Branch be filed for information.

⟹ . . . *The report of the Seventh District Branch was* **FILED FOR INFORMATION** . . .

Eighth District Branch

To the House of Delegates, Ladies and Gentlemen:

In addition to its Annual Meeting and Election of Officers, the Branch also convened two meetings of its Advisory Council; and called a special meeting of its Workers' Compensation Advisory Committee during the past year.

At the Annual Meeting on September 6, 1979, the following slate of candidates were elected unanimously to serve for a two-year term of office:

President	George E. Taylor, M.D.,	Allegany
President-Elect	Carmelo S. Armenia, M.D.,	Erie
Secretary	Harvey J. Blanchet, Jr., M.D.,	Orleans
Treasurer	Frederick R. Downs, M.D.,	Wyoming
Delegate	Paul W. Sum, M.D.,	Cattaraugus

During the year, under the auspices of its Committee on Continuing Medical Education, chaired by Milford C. Maloney, M.D. (Erie County), the Branch has planned two medical seminars; one on "Cardiovascular Diseases/Hypertension Update"; and the other, on "Current Concepts in Diagnosis and Management of Cardiac Arrhythmias." The Committee has also sponsored several conferences with representatives of other regional medical organizations to explore ways and means of developing closer working relationships to foster optional continuing education opportunities for the medical community.

Plans were formulated and a successful combined convention of the Seventh and Eighth District Branches was held at Frenchmen's Reef, St. Thomas, Virgin Islands, from March 2 through 8, 1980. The next scheduled combined convention has been set for the Brittania Beach Hotel, Paradise Island, Nassau, Bahamas, B.W.I., from February 28 through March 7, 1981.

The Advisory Council at its meetings —

1. interviewed Eugene L. Beltrami, M.D., who gave a status report on the formation of a new PSRO for this area. With MSSNY assistance, an ad hoc committee, chaired by Dr. Beltrami, has completed the incorporation of "Health Care Review Services of Western New York, Inc.," a nonprofit corporation, and has advised the United States Department of Health and Human Services that this new organization intends to make application for designation as the PSRO for this area. HHS has promised to notify us at such time as proposal might be submitted;
2. added a number of "preferred purchase programs," for members only as a tangible benefit of county and branch society memberships;
3. suggested candidates to be nominated for MSSNY offices;
4. authorized a feasibility study for a Member's Directory;
5. stimulated the designation of county society representatives to its Health Systems Agency Monitoring Committee; and
6. endorsed a proposal that the delegates from the Seventh and Eighth District Branches convene before the annual meeting of the MSSNY House of Delegates, after receipt of resolutions and reports to be considered.

The officers convened a special meeting of the Workers' Compensation Advisory Committee and endorsed a resolution from that Committee calling upon the House of Delegates to continue its opposition to the concept of regionalization of fees allowed to physicians who treat patients under the Workers' Compensation Law where the schedule of allowances fails to provide for payment of usual, customary, and reasonable fees.

Respectfully submitted,

George E. Taylor, M.D., *President*

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⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Eighth District Branch be filed for information.

⟹ . . . *The report of Eighth District Branch was* **FILED FOR INFORMATION** . . .

Ninth District Branch

To the House of Delegates, Ladies and Gentlemen:

The officers of the Ninth District Branch for two years (September 1979 to September 1981) are as follows:

President	Allison B. Landolt, M.D.,	Westchester
First Vice-President	John Simmons, M.D.,	Putnam
Second Vice-President	Joel E. Mandel, M.D.,	Rockland
Secretary	Francis McMahon, M.D.,	Dutchess
Treasurer	W. Brewster Wolfe, M.D.,	Orange
Executive Director	Joseph L. Stile	

Since the Annual Meeting of the District Branch on September 16, 1979, the officers of the organization have been occupied with plans to revitalize the activities of our district. Your President has met twice with the Ad Hoc Committee to Evaluate District Branches on February 13th and May 21st, 1980. Much constructive discussion occurred with several suggestions acted upon. The gist of these meetings can be found in the Annual Report of the Ad Hoc Committee, chaired by Richard Eberle, M.D.

I called a meeting of the District Branch officers on April 26, 1980, at the Spring CME Assembly of MSSNY. It was a well attended gathering and many innovative motions were introduced. The report of the Ad Hoc Committee was studied and used as a basis of our agenda. It was agreed that district functions fell into four categories; educational, legislative, political, and social. These could be used to implement our relationship with the Health Systems Agency and hopefully encourage a closer liaison with pharmacist and dental groups particularly for legislative purposes.

However it was the consensus that the major value of the district was in the area of continuing medical education. The following recommendations were made:

1) A cooperative effort by the counties of the district to develop a CME registry to inform all members of educational programs available. A monthly newsletter would serve as the informant.

2) A motion to institute district dues of $5.00 per member, per year which could be used in addition to the yearly allowance from MSSNY of $1,000.00. This would be used for CME, including the organization of programs outside the continental limits of the United States. Such a dues structure will require a bylaws change and approval of each component county society.

3) Formation of four district branch committees; an educational, legislative, political, and social committee. Volunteers will be welcome.

All in all the year thus far has been most productive. As your President I feel we are hopefully on our way to a more active and participatory membership. I wish to thank the other officers for their helpfulness, contribution, and willing service. To Mr. Joseph Stile, our able and devoted Executive Director, many thanks. To Mrs. Barbara Francis, who, as the incomparable organizer of CME for the Westchester Academy of Medicine, has no peer, our grateful appreciation for her enthusiasm, refreshing ideas, and dedicated support. Without two such loyal staff we could not hope to revitalize our organization.

Respectfully submitted,

Allison B. Landolt, M.D., *President*

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⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Ninth District Branch be filed for information.

⟹ . . . *The report of the Ninth District Branch was* **FILED FOR INFORMATION** . . .

PHYSICIANS' HOME

To the House of Delegates, Ladies and Gentlemen:

This is the current report of Physicians' Home.

Physicians' Home is a tax free corporation independent of the Medical Society of the State of New York whose purpose is to provide aid to needy physicians, their wives or widows, and dependent children.

Physicians' Home has functioned continuously since 1919. The name is misleading in that it was discovered early that our "guests" much preferred cash funds permitting them to remain in their own homes and surroundings.

Aid is distributed in the form of monthly checks. Applicants can apply directly or be referred by a friend, relative, or associate.

We now have 92 "guests," and are actively seeking new applicants.

Funds have been accumulated via endowments, yearly contributions from members, voluntary assessments from members of the Medical Society of the State of New York, contributions from the Auxiliary to the MSSNY, and from various county medical society auxiliaries.

In the first nine months of the present fiscal year (October, 1979 through June, 1980) we have distributed $135,498.37.

Applicants furnish a detailed current budget, are interviewed by a professional social worker who reports to our Executive Committee, and all "guests" are reviewed yearly so that Physicians' Home can be aware of increasing or decreasing needs of each "guest."

Physicians' Home has only one salaried employee, who manages the office. No officer, director, or trustee receives any reimbursement for services or expenses.

In any given year administrative costs and the excess of aid over donations are defrayed from investment income.

The portfolio is managed by Manufacturers Hanover Trust Company. Our books are checked by Price Waterhouse and Company.

Through the years our relations with the Medical Society of the State of New York have been beneficial, cordial, and constructive. The Physicians' Home welcomes the opportunity to present this report for your information and will appreciate your continued efforts to widen the base for financial support of this unique institution and help us find worthy "guests."

Respectfully submitted,
Executive Committee
Physicians' Home

Perrin B. Snyder, M.D., *President*

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⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Physicians' Home be filed for information.

⟹ . . . *The report of the Physicians' Home was* **FILED FOR INFORMATION** . . .

RÉSUMÉ OF INSTRUCTIONS FROM THE 1979 HOUSE OF DELEGATES AND ACTIONS THEREON BY THE COUNCIL, BOARD OF TRUSTEES, EXECUTIVE COMMITTEE, OFFICERS, COUNCIL COMMITTEES, AND GOVERNMENTAL AGENCIES

*To the House of Delegates, Ladies and Gentlemen:**

Alcoholism (page 451). The House adopted the following portion of the report of the Reference Committee on Public Health and Education:

> "Your reference committee requests the House of Delegates to ask the American Medical Association to contact the editors of the International Classification of Diseases so that alcoholism is classified as both a medical and mental illness in the next edition.
>
> "Your reference committee is aware that in 1977 the AMA adopted a resolution introduced by the New York Delegation. The resolved portion of the resolution called on the American Medical Association to endorse the dual classification of alcoholism under both the psychiatric and medical sections of the International Classification of Diseases. The AMA adopted the resolution; however, at present the ICD does not include this dual classification. Your reference committee, therefore, recommends that the resolution be again introduced at the 1979 Interim Meeting of the AMA by the New York Delegation."

On October 5, 1979, a communication was sent to the Chairman of the Committee on Alcoholism informing him of the action of the House.

At its meeting in December, 1979, the American Medical Association adopted resolution 22(I-79). The resolved portion reads as follows:

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* Pages referred to are from the Minutes of the 1979 Annual Meeting of the House of Delegates, as published in the New York State Journal of Medicine for February 1980, vol. 80, no. 3, pages 313–533.

Resolved, That the American Medical Association reaffirm its policy endorsing the dual classification of alcoholism under both the psychiatric and the medical sections of the International Classification of Diseases and convey this position to the editors of ICD.

A letter was sent by the AMA to the Chief Medical Officer, International Classification of Diseases, World Health Organization (WHO), Geneva, Switzerland, informing him of the sense of Resolution 22(I-79).

On February 27, 1980, Dr. A. Jablensky, Senior Medical Officer of the Division of Mental Health of WHO, Geneva, Switzerland, informed the AMA that the proposal will be taken into account in current and future work on classification and diagnosis.

Robert A. Israel, Head, WHO Center for Classification of Diseases for North America, in his reply on March 10, 1980, stated that the views of the United States on ICD, while carrying a great deal of weight, must be considered in an international arena, and are not always accepted. Therefore, it is necessary that a great deal of prepartory work and consulting with colleagues in other countries take place before the WHO sponsored international revision conference takes place. Mr. Israel is looking forward to close collaboration with the AMA on many issues as the ICD revision work moves forward.

AMA — Report on Actions of the New York Delegation. The actions of the AMA House of Delegates at the Convention in Hawaii, December 2–5, 1979, on resolutions introduced by the New York Delegation were reported in the *"News of New York"* on December 15, 1979.

The following resolutions were forwarded to the AMA as requested by the House: Resolution 79-17, *"Membership Recruitment Campaign,"* (page 366); and 79-34, *"Continuing Medical Education Credits,"* (page 460). (See Continuing Medical Education.)

In accordance with a recommendation of the Reference Committee on Public Health and Education which was adopted by the House (page 451), a resolution entitled *"Dual Disease Classification of Alcoholism"* — 22(I-79), was also forwarded to the AMA. The AMA House of Delegates adopted this resolution. (See Alcoholism.)

George T. C. Way, M.D., introduced a resolution entitled *"Accreditation of Health Data Banks"* — 47(I-79). (See Data Centers.)

Actions taken by the AMA House of Delegates on the resolutions introduced by the New York Delegation are included in the annual and supplemental reports of the New York Delegation to the AMA.

Amphetamines (See Drug Abuse; also Annual Report of the Committee on Drug Abuse.)

Athletic Trainers (page 456). The House approved the recommendation of the Reference Committee on Public Health and Education that the Medical Society of the State of New York support a bill for certification, but not for licensure, of athletic trainers.

The reference committee had been informed that Bill S.2594 to license athletic trainers would, among other things, permit them to treat athletic injuries without physician supervision.

The Chairmen of the Committees on State Legislation, and Medical Aspects of Sports were informed of the action of the House on October 5, 1979.

On February 4, 1980, Legislative Counsel, Rice and Conway, prepared a legislation memorandum in opposition to S.2594 (Stafford) A.3292 (Walsh) which would amend the education law in relation to licensing the practice of athletic training. The memorandum noted that MSSNY believes that this legislation is unnecessary and that appropriate certification requirements and procedures would provide adequate protection to the public. Furthermore, although it is recognized that well-trained individuals can provide valuable assistance both in the rendering of first aid and in the application of therapeutic treatments to injured athletes, MSSNY firmly believes that unless emergency conditions exist and the services of a physician are not available, such treatment should be rendered only under the direct supervision of a physician. The memorandum urged that this bill be defeated.

It is noted in the annual report of the Committee on State Legislation, that this bill presently remains in committee in both houses.

Bylaws, Amendments Adopted (pages 340–341). The House voted to adopt Resolution 78-3, *"Lowering of Dues and Assessments Levied for Active Members of the Medical Society of the State of New York in Residency Training,"* amending Article XV, paragraph 3 of the Bylaws. Resolution 78-3 changes the dues structure for active members who have not completed their continuous residency training. On October 3, 1979, this resolution was referred to the Division of Finance for implementation.

The House adopted Resolution 78-5, *"Further Clarification of the Function of the Council of the Medical Society of the State of New York,"* which amended the introductory paragraph of Article IV of the Bylaws which established that the Council is in fact the executive committee of the House of Delegates.

These amendments have been incorporated in the 1980 Bylaws published on pages 1485–1492 of the August issue of the *New York State Journal of Medicine.*

Bylaws, Amendments Proposed (pages 519–522). Resolution 79-1, *"Members Who Have Been Dropped from the Rolls of Membership of the Component County Medical Societies and the Medical Society of the State of New York,"* 79-2, *"Unified Membership in County, MSSNY, and AMA,"* 79-3, *"Direct Election of Councilors of the Medical Society of the State of New York by District Branches,"* 79-14, *"Medical Society of the State of New York Dues for Interns and Residents,"* 79-27, *"Age Qualifications for Entitlement to Life Membership for Practicing Physicians,"* 79-37, *"Number and Assignment of Councilors,"* 79-38, *"Vacancies and Succession,"* 79-39, *"Life Membership,"* 79-40, *"Past President of AMA — a Member of the House of Delegates* *of the Medical Society of the State of New York for Life,*" and 79-43, "*Compliance with Continuing Medical Education Requirements,*" are under consideration by the House Committee on Bylaws.

In addition, the speaker charged the House Committee on Bylaws with the review of the entire Bylaws, as well as the review and update of the Principles of Professional Conduct.

In his supplementary report to the House of Delegates, the Chairman of the House Committee on Bylaws noted that recommendations of officers, committee members, and staff have been evaluated relative to determining areas of required revision. Because of the difficult nature of this work, and time limitations, much further consideration and effort by the committee as a whole will be necessary prior to the completion of the review. The Chairman recommends that the House Committee on Bylaws continue this review for the coming year should this be the desire of Speaker Shanaphy.

Chiropractic (pages 367, 387). The Reference Committee on Reports of Officers considered the report of the Executive Vice-President, and the House adopted the following two paragraphs of the reference committee report:

> "The Medical Society of the State of New York wishes to reaffirm its belief that a physician should at all times practice a method of treatment which is founded on a scientific basis and which is in the best interest of the patient.
>
> "The Medical Society of the State of New York knows of no scientific evidence to condone spinal manipulation as appropriate treatment for the majority of human diseases. The Medical Society of the State of New York will continue to warn the public of the dangers to health in relying on the theory that disease is caused by misalignment of the spine which can be cured by manual manipulation and adjustment."

The House unanimously adopted amended substitute Resolution 79-13, "*Henry I. Fineberg, M.D., and Chiropractic,*" the resolved portion of which reads as follows:

Resolved, That every physician who is a member of the Medical Society of the State of New York stand in support of Henry I. Fineberg, M.D., against the infamous charge made by the New York State Attorney General.

On October 1, and October 15, 1979, the News of New York informed the membership of MSSNY of the action taken by the House.

On October 19, 1979, the Medical Society of the County of Niagara informed MSSNY that a resolution had been unanimously passed in support of the position of Henry I. Fineberg, M.D., concerning Chiropractic in New York.

On October 27, 1979, the Medical Society of the County of St. Lawrence transmitted a resolution which had been passed unanimously in full support of Henry I. Fineberg, M.D., in his stand on Chiropractic, and against the "infamous" charge made by the New York State Attorney General.

At its meeting on March 20, 1980, the Council was informed that a hearing had been held before Federal Judge Pratt on behalf of the Medical Society of the State of New York, Nassau County Medical Society, and Dr. Fineberg. Judge Pratt dismissed the part of the suit that called for penalties; i.e., the charge of violation of the State antitrust law, the Donnelly Act. The judge ruled that New York antitrust laws do not apply to the medical profession. Charges that the defendants violated Federal antitrust laws are still before the court. (See also Executive Vice-President report.)

Continuing Medical Education (page 460). The Reference Committee on Public Health and Education considered Resolution 79-34, "*Continuing Medical Education Credits,*" and recommended the following substitute resolution in lieu of Resolution 79-34:

Resolved, That the Medical Society of the State of New York urge, petition, and encourage the American Medical Association to recognize instruction of medical students and resident physicians by part-time voluntary clinical faculty, by changing credits earned in medical education teaching activities from Category III to Category I under a rigidly monitored system; and be it further

Resolved, That the New York Delegation to the American Medical Association introduce a resolution to that effect at the AMA Interim Meeting in December, 1979.

The House adopted the substitute resolution in lieu of Resolution 79-34, and on October 5, 1979, the Committee on Continuing Medical Education was informed of the action taken by the House.

The New York Delegation to the AMA introduced a resolution to this effect at the December, 1979, session of the American Medical Association House of Delegates — Resolution 23(I-79), "*Continuing Medical Education Credits.*" The House referred Resolution 23(I-79) to the Board of Trustees. The resolved portion read as follows:

Resolved, That the American Medical Association recognize the importance of instruction of medical students and resident physicians by part-time or voluntary clinical faculty by changing credits earned in medical education teaching activities from Category III to Category I under a rigidly monitored system.

At the annual meeting of the AMA House of Delegates July 20–24, 1980, a report was adopted in lieu of the resolution.

The reference committee in commenting on the report stated:

> "Testimony from the AMA Advisory Committee on Continuing Medical Education explained that programs were actually in operation which allowed for Category I credit for medical teaching when it is a part of a properly planned program of an accredited sponsor. Thus, a change in Physician's Recognition Award (PRA) standards was not considered necessary.
>
> "Additional testimony disclosed that the current avenues for credit for medical teaching may be expanded further by possible changes in standards being considered for the PRA program."

Cost Containment. *"The Cost Conscious Physician,"* Resolution 79-7 (pages 488–489) was adopted by the House. The resolved portion of Resolution 79-7 reads as follows:

Resolved, That the Medical Society of the State of New York urge all physicians to endeavor to influence the administrators and directors of their hospitals to list the charges for the procedures and medications in such fashion as to emphasize cost-consciousness and to maximize the education of those who order these items, as to their costs and the cost of hospital stay.

On October 8, 1979, the resolution was forwarded to Mr. George B. Allen, President of the Hospital Association of New York State, for his consideration. It was also sent to the Chairman of the Committee on Cost Containment for the Committee's information and guidance. The Director of the Division of Communications was directed to inform the membership of the action of the House. The resolution was published in the October 15, 1979, issue of the *News of New York*.

In the annual report of the Committee on Cost Containment, it was noted that on January 17, 1980, the Council charged the Committee with the preparation of a voluntary cost containment program for hospital medical staff; and on April 17, 1980, the Council considered and approved the Committee's guidelines for hospital cost awareness programs.

Data Centers (pages 459–460). *"Voluntary Accreditation Program for Medical Data Center,"* Resolution 79-9, which requested that the Medical Society of the State of New York provide financial support for the implementation of the voluntary accreditation program by the New York State Association for Confidentiality of Health Data, Inc., was referred to the Council with a fiscal note of $25,000 over a period of two years.

The House referred Resolution 79-10, *"Legislation of Medical Data Centers"* to the Council. The resolved portions of Resolution 79-10 read as follows:

Resolved, That the Medical Society of the State of New York, as a member organization, shall strongly support the medical data center accreditation program launched by the New York State Association for Confidentiality of Health Data, Inc.; and be it further

Resolved, That the Medical Society of the State of New York strongly encourage its members to transmit medical data only to such data centers as have volunteered for accreditation by the New York State Association for Confidentiality of Health Data, Inc.; and be it further

Resolved, That the Medical Society of the State of New York shall initiate the necessary legislative measures to establish adequate safeguards to protect patient privacy in the creation and operation of computerized health data systems, and to develop an effective accreditation program for those data centers which handle confidential medical data.

At its meeting on October 25, 1979, the Council referred Resolutions 79-9 and 79-10 to the Committee on Information Technology in Medicine.

At its meeting on January 17, 1980, the Council approved the recommendation of the Committee on Information Technology in Medicine that Resolution 79-9 and Resolution 79-10 be not approved.

A subcommittee of the Committee on Information Technology in Medicine was created to address proposals for legislative efforts and develop proposals for educational activities for confidentiality of health data.

The Council also discussed the possible involvement of the Joint Commission on Accreditation of Hospitals (JCAH) in the accreditation of those data centers which handle confidential medical data. George T. C. Way, M.D., introduced a resolution at the Interim Meeting of the AMA on December 2–5, 1979, Resolution 47(I-79) *"Accreditation of Health Data Banks,"* which requested that the AMA recommend through its Commissioners to the Joint Commission on Accreditation of Hospitals that a program for the accreditation of health data banks be established in accordance with the guidelines of the AMA as they pertain to the confidentiality and privacy of patient records, and that the AMA through its activities in Washington, encourage the concept of the accreditation of health data banks within the private sector as being in the best interests of the citizens of this country. The AMA referred Resolution 47(I-79) to the Board of Trustees for report back to the AMA House of Delegates at the 1980 Annual Meeting.

At the Annual Meeting, July 20–24, 1980, it was noted that there is a need for a broad review of the many confidentiality related issues and that, included in such a review, would be an extensive consideration of mechanisms, including accreditation vehicles, for preserving the intent and observance of appropriate confidentiality policies. The AMA House again referred this matter back to the Board of Trustees for further study.

Further developments regarding data centers handling confidential medical data follow:

On November 15, 1979, the Council discussed the position of MSSNY regarding the Statewide Planning and Research Cooperative System (SPARCS), a computerized system for the New York State Department of Health, which will collect information from every general hospital in New York State on four uniform documents developed in 1978 under the auspices of the Data Systems Development of the Office of Health Systems Management. The Council approved the following position statement on the SPARCS program: "The Medical Society of the State of New York cannot endorse the Statewide Planning and Research Cooperative System, as recently proposed, unless patient and physician confidentiality and privacy are adequately protected. The MSSNY is not opposed to legitimately collected data for research purposes."

On December 27, 1979, the *Ad Rem* reported that the Statewide Planning and Research Cooperative System (SPARCS), which is operated by the State Health Department as a pilot project under a federal grant, is in jeopardy because of disagreement between the State and Federal government over confidentiality. HEW's Health Care Financing Administration is refusing to support SPARCS in 1980 because of State regulations that any requests for data must go through the State Data Protection Review Board. According to the Hospital Association of New York State's "*News,*" HCFA has insisted on having open access to Medicare and Medicaid data and "related information," which is interpreted to include nonfederal patients. The Health Department has refused in the interest of patient privacy.

The *Ad Rem* reported on January 30, 1980, that HEW has agreed to renew its grant to the State to gather hospital data through SPARCS through the end of this year. HEW and the State Health Department had been at an impasse over confidentiality. The agreement reached is that all requests will go through the State's Data Projection Review Board, and the board will consider the applicability of Federal statute entitling HEW to data on Medicaid and Medicare patients.

Death — Pronouncement of (page 458). The Reference Committee on Public Health and Education was in complete agreement with the Committee on Forensic Medicine in its concern about the lack of availability of physicians in the pronouncement of death in those instances where individuals die suddenly or unexpectedly. However, it was of the opinion that the way to resolve this problem is not for physicians to abdicate their responsibilities. The reference committee recommended and the House approved that MSSNY oppose legislation which would designate individuals other than physicians to pronounce death.

On October 5, 1979, the Committees on Forensic Medicine and State Legislation were informed of the action of the House.

The recommendation of the reference committee that MSSNY remind physicians of their responsibilities both to the family of the deceased and to the community in caring for the dead, and that this be published in MSSNY's publications, was also approved by the House. This information was disseminated to the membership in the *News of New York* on October 15, 1979.

The Chairman of the Committee on Forensic Medicine noted, in his annual report to the House of Delegates, that the problem of pronouncement of death continues to exist in urban and semi-urban communities as an outgrowth of two factors: 1) the lack of availability of physicians; and 2) patients being cared for by institutions; placing the responsibility of pronouncement on the local medical community rather than on the institution.

The problem of pronouncements is compounded by the fact that doctors are not available in many instances to certify death. The Committee feels that this problem still exists and will only increase in the future, but hopes that each community could solve the problem of pronouncement of death and increase the availability of physicians to certify death in their patients.

The annual report of the Committee on State Legislation, noted that no legislation regarding pronouncement of death has yet been introduced into the New York State Legislature.

Diabetes Testing Materials (page 456). The Committee on Metabolic Diseases noted that diabetes testing materials are paid for by Medicaid, and the Committee recommended that MSSNY adopt the position that these materials, if prescribed by a physician, should also be paid for by other insurance plans.

The Reference Committee on Public Health and Education, in reviewing the report, commented that it is not logical to require private insurance companies to pay for diabetes testing materials simply because they are paid for by Medicaid. The House, in adopting this portion of the reference committee report, concurred.

The Committee on Metabolic Diseases was informed of the action of the House on October 5, 1979.

Driving Disabilities (page 450). The House adopted the recommendation of the Reference Committee on Public Health and Education to reestablish the Medical Advisory Board in the Department of Motor Vehicles, which would set up guidelines for reporting patients with medical driving disabilities. On September 9, 1979, this recommendation was forwarded to the Committee on Accident and Injury Prevention and to the Commissioner of the Department of Motor Vehicles.

It was noted in the annual report of the Committee on Accident and Injury Prevention, that joint efforts of the Committee with the New York State Department of Motor Vehicles to write legislation reestablishing a Medical Advisory Board of the Department of Motor Vehicles and developing guidelines for physicians concerning medical driver limitations, are continuing. The DMV is in serious need of expert, authoritative medical opinions concerning drivers with medical driving disabilities. Current medical guidelines lack proof of effectiveness and are being successfully challenged in court. The reestablishment of a Medical Advisory Board and expansion of the research programs of the DMV remain urgent necessities.

Drug Abuse (page 453). The House adopted the following recommendation of the Reference Committee on Public Health and Education:

> "Your reference committee wishes to call the attention of the House of Delegates to the fact that investigation of the prescribing practices of physicians by way of monitoring the triplicate prescription program has yielded the names of a number of physicians who are, indeed, using amphetamines excessively in weight reduction programs. The Committee recommends that these drugs be limited to use in hyperactive children and narcolepsy."

On October 5, 1979, the recommendation of the Reference Committee on Public Health and Education was forwarded to the Committee on Drug Abuse.

Glenn E. Haughie, M.D., Deputy Commissioner of Health, requested to speak to the Council at its meeting on November 15, 1979, in regard to Legislative Proposal H.D. 36-80, which would provide the legislative and financial support for a new State initiative to constrain the illegal sale of controlled substances. The proposal would amend the Public Health Law to add a section providing for the registration of all practitioners and pharmacies that prescribe, distribute, dispense, or administer controlled substances, and would amend present law to require formal reporting of disciplinary actions relating to physicians and controlled substances to the Board of Professional Medical Conduct. Dr. Haughie informed the Council of various approaches that the New York State Department of Health is taking to control drug abuse.

The discussion in the Council centered on the obvious desire of physicians to control drug abuse. However, there was objection to an increase in the bureaucracy and having physicians pay $50 to obtain a controlled substance certificate of registration in order to finance this particular program.

The Council referred the discussion and material presented to them to the Committee on Drug Abuse for their review and to report their recommendations to the Council.

In its annual report, the Committee on Drug Abuse noted that the draft was studied by the Committee and disapproved because of a lack of statistical information and insufficient knowledge of the experience of other States in handling this matter. A meeting was held between representatives of MSSNY and the State Health Department to discuss possible areas for cooperative attempts at solutions to the problem. (See annual report of the Committee on Drug Abuse.)

Drugs (page 514). "*Expiration Date on Drug Labels,*" Resolution 79-4, was amended and adopted by the House. The amended resolution portion of Resolution 79-4 reads as follows:

Resolved, That the Medical Society of the State of New York support appropriate legislative or regulatory action that would mandate the inclusion of the expiration date and control number on all prescription drug labels on containers dispensed to patients.

On October 9, 1979, the Committee on State Legislation was informed of the action of the House.

In the annual report of the Committee on State Legislation, it is noted that a memorandum supporting S.4388 (Sen. Halperin); A.6392 (M. of A. Smoler), which would require expiration dates on prescription drugs in this State was prepared and distributed to the legislature. The memorandum urged amendment of the bill to require that the drug's control number be included along with the expiration date. The bill is presently in committee in both houses.

Dues Increase Allocation (page 362). The Reference Committee on Reports of Officers, in considering the allocation of the 1977 dues increase, recommended the following:

> "Because of present economic conditions, with no possibility of additional revenue, the reference committee recommends that the $25.00 portion of the dues increase that was returned to the county societies last year be allocated to the general fund for the coming fiscal year so that no dues increase will be necessary. The use of these funds will again be reviewed by the 1980 House of Delegates.
>
> "The Committee hopes that membership recruitment will be so successful that no future dues increases will be necessary."

This recommendation was adopted by the House, and was forwarded on October 4, 1979, to the Chairman of the Committee on Budget and Finance.

Environmental Quality (page 454). The last paragraph of the report of the Committee on Environmental Quality stated: "The morbidity, mortality, and genetic damage affecting this and essentially all future generations must be carefully considered before continuing along the treacherous route of the nuclear economy."

In reviewing the report of the Committee, the Reference Committee on Public Health and Education recommended that this last paragraph be referred back to the Council since all of the facts on the subject of radiation are not yet available. The reference committee was of the opinion that this paragraph does not reflect scientific evidence.

The House voted to refer the last paragraph of the report of the Committee on Environmental Quality to the Council. At its meeting on October 25, 1979, the Council referred this paragraph of the report back to the Committee on Environmental Quality.

Fees (See also Medicaid).

Fees. "*Rates for Medical Services Under the Workers' Compensation Medical Fee Schedule,*" Resolution 79-23 (page 490), was adopted by the House as amended by the Reference Committee on Medical Services. The resolved portion of amended Resolution 79-23, reads as follows:

Resolved, That the President of the Medical Society of the State of New York continue to fulfill his obligation of advising the Chairman of the Workers' Compensation Board regarding the prevailing medical fees by recommending that the level of fees be set at the usual, customary, and reasonable fee levels present in defined localities.

On October 8, 1979, Resolution 79-23 as amended was forwarded to the Chairman of the Committee on Workers' Compensation and Occupational Health for the information and guidance of the Committee.

In his report to the Council on February 14, 1980, the chairman of the Workers' Compensation and Occupational Health Committee noted that legal opinion is that MSSNY may participate in the setting of a fee schedule for workers' compensation. This is already the official policy of the MSSNY, and the intent of this resolution is being actively pursued.

Arthur Cooperman, Chairman of the Workers' Compensation Board, attended a meeting of the Council on June 26, 1980, and informed the Council that he is presently moving in the direction of regionalization of fees. President Denton expressed the opinion of MSSNY that the adoption of usual, customary, and reasonable fees would be a far more equitable payment mechanism than geographic regionalization.

(See also Report of the Committee on Workers' Compensation and Occupational Health.)

Health Coordinator — Position of (page 459). Resolution 79-18, "*Health Coordinator in Elementary Schools,*" which requested that MSSNY strongly recommend to the Education Department of the State of New York that the position of health coordinator be restored in each school district, and that this health coordinator be responsible for initiating and implementing health education programs in the elementary schools in the district to which he or she is assigned, was adopted by the House.

A communication enclosing this resolution was forwarded to Mr. Gordon Ambach, Commissioner of Education of the State of New York, on October 5, 1979, with the request that he give this resolution due consideration.

"*Health Education and Illness Prevention,*" Resolution 79-46 (page 489) was adopted by the House. The resolved portions of Resolution 79-46 read as follows:

Resolved, That the Medical Society of the State of New York do all in its power to encourage and foster the use of all available health promotional means by members of the Medical Society of the State of New York, so that illness and the cost of its care will be reduced; and be it further

Resolved, That the Medical Society of the State of New York and its affiliates actively encourage the State Legislature and all local governing bodies of this State to increase their fiscal support of means of health education and disease prevention.

On October 9, 1979, the Chairman of the Committee on Cost Containment, and the Presidents, Secretaries, Executive Secretaries and/or Directors of Component County Medical Societies were informed of the action taken by the House.

On November 2, 1979, the Division of Governmental Affairs sent a memorandum to members of the New York State Legislature and to county medical society legislation chairmen informing them of the action of the House and requesting their cooperation in carrying out the intent of Resolution 79-46.

In the annual report of the Committee on State Legislation it was noted that a memorandum in support of A.5448 (Diggs), which would require the establishment of programs for instruction in schools regarding nutrition, mental and emotional health, family living, and disease prevention and control, was prepared and distributed to the Assembly Health Committee, which has not yet considered the bill.

Hospital Privileges. The House adopted two paragraphs of the report of the Reference Committee on Medical Services, thereby amending Section "B" of the "GUIDELINES ESTABLISHED BY THE MEDICAL SOCIETY OF THE STATE OF NEW YORK AND THE HOSPITAL ASSOCIATION OF NEW YORK STATE FOR INDIVIDUAL HOSPITALS AND THEIR MEDICAL STAFFS IN THE DETERMINATION OF MEDICAL STAFF MEMBERSHIP AND HOSPITAL PRIVILEGES" (page 488).

Section "B" of the guidelines now reads as follows:

B. Granting of Hospital Privileges

Privileges shall be granted on the basis of the individual qualifications which shall take into consideration the interest, training, experience, and ability of each practitioner.

1. Hospitals without clinical departments shall grant privileges on an individual basis in accordance with the interest, training, and experience of the applicant. Such hospitals may consult with the nearest departmentalized hospital, if necessary, in the determination of such privileges. It shall be accepted that in today's medical community there is no role for the partially trained specialist.
2. Hospitals with clinical departments shall grant privileges based on training and experience consistent with the requirements of the various Specialty Boards. Family physicians who apply to such hospitals shall become members of an Administrative Department of Family Practice with clinical privileges granted on an individual basis as recommended by the Specialty Department in which the specific privilege belongs.
3. The dilemma of teaching hospitals in obtaining an adequate patient population that would permit the fulfillment of their purposes results in large measure from the lack of admissions by the personal physicians because of the loss of control of their patients when the latter are admitted into such institutions. A solution to this problem can be reached if university hospitals establish a methodology that will effect close cooperation between the personal physicians and the university hospital attending and resident staff, with the personal physicians continually involved in the care of their patients, and observe the policy originally proposed by this society and later adopted by the AMA and that is that there shall be one physician responsible for the patient's care, and that physician shall be the patient's own private physician.

On October 8, 1979, Mr. George B. Allen, President of the Hospital Association of New York State, Inc., and the Chairman of the Committee on Hospital and Professional Relations, were informed of the action of the House.

Litigation Costs (pages 515–516). Resolution 79-20, "*Litigation Costs for Issues of General Impact to the Medical Profession*" was amended by the House and referred to the Council for its study as to exact wording. The resolved portions of Resolution 79-20 read as follows:

Resolved, That the Medical Society of the State of New York request General Counsel to review all actions by governmental and regulatory agencies against physician members to ascertain if the matter at bar is of a generic nature that applies to the profession as a whole; and be it further

Resolved, That all matters determined to be pertaining to the general practice of medicine by General Counsel shall be considered for appropriate action by the Medical Society of the State of New York.

At its meeting on October 25, 1979, the Council amended Resolution 79-20 by the deletion of the first resolved, and adopted Resolution 79-20 as amended. General Counsel was so informed.

In the annual report of the Subcommittee on Legal Affairs, it is noted that in matters where intrusion into the practice of medicine are unwarranted and unjustified, and where negotiation has failed, litigation has been commenced.

Medicaid

Medicaid Claims. The Reference Committee on Medical Services considered Resolution 79-41, *"Time Limitation for Processing Medical Claims"* (page 492), and recommended a substitute resolution for Resolution 79-41. The House adopted the following substitute resolution in lieu of Resolution 79-41:

Whereas, The time limits for processing medical claims differ between the Medicare program (Title XVIII) and the Medicaid program (Title XIX); and

Whereas, Such difference is unreasonable and confusing; and

Whereas, It is the expressed intent of the government to bring these two programs into closer conformity; therefore be it

Resolved, That the Medical Society of the State of New York seeks a change in the time limitations for processing medical claims under Title XIX to those that apply to Title XVIII (27 months); and be it further

Resolved, That the Medical Society of the State of New York seek the implementation of this change by appropriate communication with the necessary Federal and State governmental agencies.

On October 5, 1979, the substitute resolution for Resolution 79-41 was sent to the Director of the Division of Medical Services for his guidance in seeking implementation of the directive of the House. On March 18, 1980, a letter was sent to Barbara Blum, Commissioner of the New York State Department of Social Services, requesting that the time limitation for processing medical claims be brought into conformity.

On April 24, 1980, Commissioner Blum replied that upon review of the current circumstances and those under which the present bill submission limitations for the New York State Medical Assistance Program were originally promulgated, she has determined that it would be contrary to the program and fiscal objectives of the New York State Department of Social Services to change to the Title XVIII requirements. A copy of Commissioner Blum's reply is contained in the annual report of the Committee on Medical Care Insurance, Appendix "B."

Medicaid Committee. *"Creation of a Medicaid Committee of the Medical Society of the State of New York,"* Resolution 79-6 (page 489). The House adopted the following substitute resolution recommended by the Reference Committee on Medical Services in lieu of Resolution 79-6:

Whereas, Enrollment of physicians as providers of medical services under the Medicaid Program of the State of New York has increased; and

Whereas, It is the stated position of the Medicaid Program to enlist all physicians to improve the quality of, and accessibility to, medical care; and

Whereas, The State agencies involved in the administration of this program not infrequently have taken unilateral and arbitrary actions that have constituted harassment and discouraged physician participation in the program; and

Whereas, The Medicaid Program concerns many of the members of the Medical Society of the State of New York and its component societies; and

Whereas, Such members are frequently in need of assistance and information; and

Whereas, The Medical Society of the State of New York through its Medical Care Insurance Committee devotes approximately 70% of its time to Medicaid problems and in assisting our members when such problems are brought to its attention; and

Whereas, Many members are unaware of such Society activities; therefore be it

Resolved, That the Medical Society of the State of New York urge each county medical society to form a Medicaid or Medical Care Insurance Committee to deal with the Medicaid problems of its members and to foster and defend the rights of the indigent to adequate medical care; and be it further

Resolved, That such committees establish lines of communication with the Medical Society of the State of New York Medical Care Insurance Committee and seek the latter's assistance when appropriate.

On October 8, 1979, the Chairman of the Committee on Medical Care Insurance, and Presidents, Secretaries, Executive Secretaries and/or Directors of Component County Medical Societies were requested to carry out the directive of the House.

At its meeting on January 17, 1980, the Council, in response to a recommendation to form a Statewide Medicaid Committee, discussed the intent of the House of Delegates in adopting substitute Resolution 79-6.

It was noted that the implementation of the Statewide Medicaid Committee would be ineffective, based on the fact that Medicaid as administered in the State of New York is now a fragmented process.

Medicaid at this point in time is administered in 54 counties by local Commissioners of Social Services, who have the sole responsibility for the administration of Title XIX programs in their particular areas. In 8 additional counties of New York State, composed of the 5 New York City counties, as well as Nassau, Washington, and Chemung, the Medicaid program is administered by the State Department of Social Services, and the local commissioners are responsible merely for eligibility.

It was felt that until the Medicaid Management Information System (MMIS), which is now implemented in the 8 counties referred to, is implemented throughout the State, no committee at the State Society level could adequately handle the problems, which at this point involve 55 different programs.

It was therefore recommended that the modified resolution, that Medicaid committees be formed at the local level, be implemented and utilized until the Statewide program is put in place.

To bring the collective strength of the State Society to bear on the involved governmental agencies, the scope of the MSSNY Ad Hoc Committee on Medicaid was expanded to deal with:

1. Reimbursement Forms
2. Universal Coding
3. Updating of Fees

G. Rehmi Denton, M.D., President, noted that, even though particular problems are referred to individual insurance carriers as well as local county medical societies, the issue is often not resolved. He, therefore, recommended that a system be established to assure that, after all avenues available to an individual physician to seek redress are utilized, the Medical Society of the State of New York use its strength and good offices to attempt to resolve the problem.

The Council approved the implementation of this "Ombudsman" program. The membership was informed of this new service to members through the *News of New York* (February 15, 1980 issue) and the *Ad Rem* on February 12, 1980.

On June 26, 1980, Daniel F. O'Keeffe, M.D., Chairman of the Ad Hoc Committee on Medicaid distributed a "Flow Chart" summarizing what is being accomplished relative to the following objectives:

1. Redefine levels as related to Medicaid
2. Increase accessibility of care
3. Improve continuity of care
4. Change reimbursement comparable to Medicare
5. Key is to set a design to help Medicaid patients; to provide specific recommendations to the State on specific issues; to design a better program
6. Obtain function of Medicaid Advisory Committee

Medicaid Fees. The Reference Committee on Governmental Affairs and Legal Matters considered Resolution 79-15, "*Increase in Physician Fees Under the Medicaid Program*" (page 514), Resolution 79-33, "*Reimbursement for Medical Care Under the Medicaid Program*" (pages 514–515), and Resolution 79-42, "*Medicaid Fee Schedule*" (page 515), and recommended that Resolution 79-42 be adopted in lieu of Resolutions 79-15 and 79-33. The House adopted the recommendation of the reference committee. The resolved portions of Resolution 79-42 read as follows:

Resolved, That the Medical Society of the State of New York strongly support the revision of the Medicaid Fee Schedule to a level of reimbursement that is equivalent to the usual, customary, and prevailing fees that are in existence in this State in the year 1979, and strongly urge that these fee schedules be reviewed and revised on an annual basis (as is done with Medicare reimbursement schedules); and be it further

Resolved, That the House of Delegates direct that all necessary steps be taken immediately on behalf of the Medical Society of the State of New York to achieve these objectives.

On October 5, 1979, the Directors of the Division of Governmental Affairs and Medical Services were informed of the action of the House.

At its meeting on February 14, 1980, the Council was informed that a meeting had been held with Barbara Blum, Commissioner of the New York State Department of Social Services, the Office of Health Systems Management, and the Office of the Budget, with the Ad Hoc Committee of MSSNY for Medicaid Reimbursement, to discuss an increase in Medicaid fees.

At that meeting MSSNY presented data that reflected an increase of 98% on fees under the workers' compensation program for the period 1966 to 1980, a time when Medicaid fees in New York State remained stationary. MSSNY then requested a 100% increase in the Medicaid medical fee schedule.

Commissioner Blum noted that, based on the fiscal constraint placed upon the budget, such an increase at this time is unobtainable, but stated they had recommended to the legislature a 20% increase in certain limited code numbers in the physician based primary care services, with a fiscal impact of 7.3 million.

Since these increases were merely proposals, it was urged that MSSNY legislative representatives work vigorously to contact legislators and impress upon them the necessity, not only to preserve this very limited proposed increase, but to attempt to secure additional funding to allow medical fees for physicians to rise to acceptable levels.

It is noted in the annual report of the Committee on Medical Care Insurance, that the Chairman of the Commission on Medical Services addressed a communication to the New York State Senate and Assembly Health Committees requesting dialog relative to increasing Medicaid reimbursement. This resulted in a meeting in Albany with the NYS Senate Health Committee on May 13, 1980, at which the difficulties experienced by health providers due to the inordinate paper work and cumbersome forms, delay in payment, delay in certification, as well as low reimbursement, were brought to their attention. An additional meeting with the Chairman of the Assembly Health Committee on May 27, 1980, resulted in a commitment by the Chairman to work as diligently and expeditiously as possible to secure adequate reimbursement for physicians who render services under the Title XIX program. (See also Medicaid Committee.)

Medical Student Funding (pages 431–432). The House adopted the following substitute resolution for Resolution 79-44, "*Medical Society of the State of New York Funding of Students to AMA Conventions*":

Resolved, That the Medical Society will extend an honorarium of $100.00 to a medical student from each medical school to attend the annual meeting of MSSNY; and be it further

Resolved, That the MSSNY pay full expenses of one medical student selected by the student membership to attend the Interim and Annual Meetings of the House of Delegates of the American Medical Association, expenses not to exceed $2,000.

(Fiscal note: $1,200 + $2,000 = $3,200)

Funding for the substitute resolution was approved by the Board of Trustees at its meeting on October 25, 1979.

Membership Recruitment (page 366). Resolution 79-17, "*Membership Recruitment Campaign*" was amended by the House and adopted as amended. The resolved portions of amended Resolution 79-17 read as follows:

Resolved, That the local county medical society be entitled to retain 50% of the first year's State Society dues for each member it obtains through its local membership recruitment campaign; said monies to be used to defray the costs incurred in its recruitment campaign; and be it further

Resolved, That this program apply to all first-time members and those who have not been members for two years or more; and that this be applied only to a net gain of full dues paying members; and be it further

Resolved, That this procedure go into effect with the 1980 dues year and remain in effect for a two year period, at which time the House of Delegates will review its degree of success; and be it further

Resolved, That the Medical Society of the State of New York introduce a similar resolution, affecting AMA dues, at the 1979 Interim Meeting of the AMA House of Delegates.

On October 4, 1979, the Director of the Division of Finance was requested to inform all county medical societies concerning this resolution and the procedure to be used in implementing it.

The New York Delegation to the AMA introduced a resolution to this effect at the December, 1979, session of the American Medical Association House of Delegates — Resolution 21(I-79), "*Reimbursement for Member Recruitment.*" The resolved portion of which follows:

Resolved, That the American Medical Association adopt a plan to annually reimburse the county or local medical society 50 percent of any net gain in AMA dues remitted by that society to help defray the local cost of AMA member recruitment efforts.

In considering this resolution, the reference committee of the AMA noted that "the AMA has projected an increase in memberships for 1980, and the full value of the funds that these new memberships will provide are part of the fabric of the planning." The AMA House referred Resolution 21(I-79) to the Board of Trustees to be considered as the Board develops its dues proposal for the Annual Meeting in 1980.

At that meeting, July 20–24, 1980, the Board of Trustees indicated in its report to the House that it was sympathetic to this proposal. However, at the present time, the Association is testing the effect of several pilot programs that offer state or county societies a rebate on dues received from new members. Until the results of these test programs are available and evaluated, the Board is reluctant to endorse the proposal in Resolution 21.

Metropolitan Hospital — Closure of. The House referred Resolution 79-45, "*Closure of Metropolitan Hospital, New York City*" (page 492), to the First District Branch. The resolution requested the Medical Society of the State of New York to support efforts to ensure the continued operation of Metropolitan Hospital, New York City. On October 8, 1979, Nathan Greenstein, M.D., President of the First District Branch, was sent a communication informing him of the action of the House. It was noted that the Reference Committee on Medical Services felt that the issues raised in this resolution have a complex set of interacting pressures that impinge upon the desirability or necessity of closing of any hospital, and though the reference committee was aware that the Health Systems Agency report, which had just been received, stated that Metropolitan Hospital is not to be closed, it was of the opinion that this matter required further study and consideration. Nathan M. Greenstein, M.D., President of the First District Branch, in his letter of November 30, 1979, informed the Executive Committee that the First District Branch had considered this resolution. It was recommended and approved by the First District Branch, that the ambulatory care services at Metropolitan Hospital be maintained as they now stand, but that the inpatient service be analyzed and evaluated and should be adapted to match the needs and requirements of the community.

Past House of Delegates Actions (pages 421–422). Resolution 79-31, "*Past House of Delegates Actions on Content of Submitted Resolutions*" which calls for all past actions of the House of Delegates of the Medical Society of the State of New York alike in content to presently submitted resolutions to be listed as a footnote to each resolution submitted for action by the House of Delegates was adopted by the House.

This procedure will go into effect for the 1980 resolutions.

Physicians' Assistants (page 490). The House referred Resolution 79-26, "*Modification of Scope of Practice by Physicians' Assistants,*" which requested MSSNY to introduce legislation to repeal section 6542(7) of the Education Law to the Council.

At its meeting on October 25, 1979, the Council voted to not adopt Resolution 79-26.

Public Relations Campaign (pages 430–431). The House referred Resolution 79-11, "*Ongoing Public Relations Campaign,*" to the Council for further study. The resolved portions read as follows:

Resolved, That the Medical Society of the State of New York institute a continuing and ongoing public relations program in the public printed and electronic media; and be it further

Resolved, That MSSNY assess each member $100 to fund this program; and be it further

Resolved, That this program be under the direction of the Executive Vice-President, who will implement it through his Division on Communications, which will draw on outside help as necessary (advertising agencies, etc.); and be it further

Resolved, That this program consist of a series of newspaper ads and TV spots which will appear in various newspapers and be televised on various TV channels throughout New York State according to Appendix "A" which will effectively give every citizen in New York State an opportunity to get the physicians' view on critical socioeconomic issues which confront everyone regarding health care.

Fiscal Note: Appendix "A"

(Appendix "A" outlined the program with an estimated cost of $2,224,198.)

On October 18, 1979, the Columbia County Medical Society forwarded a resolution urging the Council to disapprove assessment of $100 per member for purposes of public relations in the media.

At its meeting on October 25, 1979, the Council referred Resolution 79-11 to the Committee on Research and Development. On June 26, 1980, the Council approved the recommendation of the Committee on Research and Development that Resolution 79-11 be not approved, and the Council approved the recommendation of the committee that the Committee on Communications create a program on internal education for physician members with respect to public relations in their own office.

State Legislation Program for 1980 (pages 507 and 508). The Reference Committee on Governmental Affairs and Legal Matters recommended and the House approved the following State Legislation Program for 1980:

1. Investment Fund — Pain and Suffering Damages Over $100,000 Plus Special Damages. (S.4420; Pisani) (A.5684; Tallon)
2. No-Fault Insurance Law Amendment. (S.256; Marchi) (A.6553; Connelly)
3. Parallel Coverage — Emergency Care in Physicians' Offices. (S.4448; Lombardi) (A.5688; Tallon)
4. Medical Society Involvement in Physician Discipline. (S.5681; Warder)
5. Drug Information to Expectant Mothers — Amendment.
6. Professional Service Corporation Tax Law Amendments. (S.3801; Pisani) (A.4681; Robach)

In its annual report to the House, the Committee on State Legislation presents a detailed report on the 1980 State legislation program.

Survey of Physicians in New York State (page 403). The House adopted Resolution 79-16, "*Demographic Survey of Physicians in New York State*" which calls upon MSSNY to adopt Resolution 78-31, "*Pilot Demographic Survey of Health Care Physicians,*" and that the demographic survey of physicians in New York State be started without further delay, with the initiation of the Pilot Demographic Survey of Health Care Physicians. Fiscal Note: $10,000.

On October 4, 1979, the Chairman of the Board of Trustees and the Director of the Division of Finance were informed of the action of the House of Delegates.

At its meeting on October 25, 1979, the Board of Trustees referred Resolution 79-16 to the Committee on Research and Development for study.

The Council on January 17, 1980, approved the recommendation of the Committee on Health Manpower and Rural Medical Service that this Committee be informed of the methodology of implementing the Statewide demographic survey of health care professionals.

The Council was informed at its meeting on June 26, 1980, that the Committee on Research and Development had decided that the survey should be done on a pilot basis in Nassau and Suffolk counties in accordance with Resolution 78-31.

In the annual report of the Committee on Research and Development, it was noted that the thinking of the Committee at this time resolves into three phases: 1) the pilot study is invaluable to test the mechanism; 2) the entire State ultimately should be surveyed; and 3) the Empire State Medical, Scientific, and Educational Foundation should be the vehicle for the Statewide survey.

With regard to the implementation of this Pilot Demographic Survey it was decided:

1. A master list of sources which will eventually yield a list of the physicians in the area would be compiled.

2. Staff will prepare a rough draft of information required from physicians for the survey to be circulated to the Committee on Research and Development for additions and suggestions.

3. After the completion and evaluation of the pilot project survey, the Empire State Medical, Scientific, and Educational Foundation should be approached for the possibility of grant funds for the Statewide study.

Tax Laws and Scientific Organizations (pages 516–517). The House referred Resolution 79-24, "*Use of Tax Laws to Control Scientific Organizations,*" to the Council for further study. The resolved portions of Resolution 79-24 read as follows:

Resolved, That the Medical Society of the State of New York undertake a study to ascertain the extent of actual or perceived fears of deprivation of tax exempt status by scientific organizations who may wish to express opinions on matters that affect the public welfare, including recommendations for political effort to prevent or correct injustices inimical to the public welfare; and be it further

Resolved, That such study shall be reported to the House of Delegates at its next annual meeting, together with such recommendations as are deemed advisable.

At its meeting on October 25, 1979, the Council referred Resolution 79-24 to MSSNY General Counsel and to the Comptroller for their opinion, and for a report back to the Council and the House of Delegates.

J. Richard Burns, J.D., General Counsel, reported to the Council at its meeting on January 17, 1980, as follows:

A Scientific Organization is a 501(c)(3) corporation under the *Internal Revenue Code*. A 501(c)(3) corporation includes:

> "Corporations, and any community chest, fund, or foundation, organized and operated exclusively for religious, charitable, scientific, testing for public safety, literary, or educational purposes . . . no part of the net earnings of which inures to the benefit of any private shareholder or individual, no substantial part of the activities of which is carrying on propaganda, or otherwise attempting to influence legislation (except as otherwise provided in subsection (h)), and which does not participate in, or intervene in (including the publishing or distributing of statements), any political campaign on behalf of any candidate for public office."

In order to qualify as a 501(c)(3) corporation, the organization must be organized and operated exclusively for the purposes specified in the section.

The articles of a 501(c)(3) corporation may not empower it:

(1) To devote more than an insubstantial part of its activities to attempting to influence legislation by propaganda or otherwise; or

(2) Directly or indirectly to participate in, or intervene in (including the publishing or distributing of statements), any political campaign on behalf of or in opposition to any candidate for public office; or

(3) To have objectives and to engage in activities which characterize it as an "action" organization. (Internal Revenue Regulations 1.501(c)(3)-(b)(2))

Section 1.501(c)(3)-1(c)(3)(ii) of the Internal Revenue Regulations provides:

> "An organization is an 'action' organization if a substantial part of its activities is attempting to influence legislation by propaganda or otherwise. For this purpose, an organization will be regarded as attempting to influence legislation if the organization —
>
> (a) Contacts, or urges the public to contact, members of a legislative body for the purpose of proposing, supporting, or opposing legislation; or
>
> (b) Advocates the adoption or rejection of legislation . . ."

Section 1.501(c)(3)-1(c)(3)(iii) of the Internal Revenue Regulations provides:

> "An organization is an 'action' organization if it participates or intervenes, directly or indirectly, in any political campaign on behalf of or in opposition to any political candidate for public office . . . Activities which constitute participation or intervention in a political campaign on behalf of or in opposition of a candidate include, but are not limited to, the publication or distribution of written or printed statements or the making of oral statements on behalf of or in opposition to such a candidate."

As distinguished from the above restrictions, 501(c)(3) corporations may engage in nonpartisan analysis, study or research and may make the results available to the public. (Internal Revenue Regulations 501(c)(3)-1(c)(3)-(iv))

According to the Internal Revenue Code and interpretive regulations, substantial restrictions prevent 501(c)(3) corporations from engaging in political activities.

The advantage of setting up 501(c)(3) corporations is that contributions to 501(c)(3) organizations are deductible as charitable contributions.

The Medical Society of the State of New York is a 501(c)(6) corporation and not a 501(c)(3) corporation. There is no requirement by statute or regulation that a 501(c)(6) corporation refrain from carrying on propaganda or seeking to influence legislation in order to maintain its tax exemption.

The manner in which 501(c)(6) corporations seek to influence legislation, however, may affect the amount of tax deduction that the corporation's members may take for dues paid to the corporation. Under section 162 of the *Internal Revenue Code*, membership dues paid by a professional to a professional association are deductible as a business expense. Section 162(e)(2)(B) limits this deduction by providing that the deduction shall not include any amount incurred in connection with attempts to influence the general public, or segments of the general public, with respect to legislative matters, elections, or referenda. Attempts to influence the general public is termed, "grass roots lobbying."

Extensive grass roots lobbying by the exempt corporation may result in a reduction in the amount of the membership dues that is deductible. The percentage of dues paid by the members equal to the proportion of grass roots lobbying conducted by the corporation will be nondeductible.

Attempts by the corporation to contact the members of the corporation regarding elections, matters related to legislation or referenda is not held as grass roots lobbying. According to revenue rulings, the following are examples of grass roots lobbying:

(1) Appeals by the corporation urging its members to contact employees and customers (or patients) regarding legislation;

(2) Communications to prospective members regarding legislative matters; and

(3) Expenses incurred by the corporation for newspaper advertisements setting forth the corporation's position with respect to elections, legislative matters or referenda where the Internal Revenue Service construes the advertisement is designed to influence the general public.

In the opinion of General Counsel, no further action is required for Resolution 79-24, and it should be disapproved. As a 501(c)(6) corporation, the Medical Society of the State of New York is free to speak out on issues affecting legislation and political matters. The exception is that the Medical Society cannot contact the general public on such matters without jeopardizing the business deduction that our members may take with respect to membership dues. General Counsel is quite sure, however, that our Division of Governmental Affairs can assure the membership that the Medical Society is fully involved in legislative activities affecting our membership.

The Medical Society of the State of New York does sponsor 501(c)(3) corporations as its "research arm." These 501(c)(3) sponsored corporations of course, cannot be involved in partisan matters. However, this provides no problem since bodies such as the Empire State Medical, Scientific, and Educational Foundation were not organized for political or legislative purposes. Our scientific organizations will not jeopardize their status for reporting on nonpartisan analysis, study or research in scientific or medical matters, since it is for this very purpose which the organizations exist.

The Council approved the report of General Counsel, thereby not adopting Resolution 79-24.

"WATS" Telephone Line (page 422). Resolution 79-36, "*800 WATS Telephone Line,*" was referred to the Council by the House. The resolved portions of this resolution read as follows:

Resolved, That the Medical Society of the State of New York install, as a pilot project, an 800 "WATS" telephone line to be used for communication between the MSSNY headquarters and physician members throughout New York State; and be it further

Resolved, That the Medical Society of the State of New York use this 800 "WATS" telephone line to contact nonmember physicians from a list supplied by the individual constituent county medical societies; and be it further

Resolved, That in the event that the pilot project utilizing the 800 "WATS" telephone line is found to be cost effective and does improve the communications between MSSNY headquarters and the member physicians throughout New York State, that additional lines be installed to meet the needs required by the MSSNY as the representative of physicians in New York State.

At its meeting on October 25, 1979, the Council tabled action on Resolution 79-36 until its meeting on November 15, 1979. Staff investigated the fiscal implications and reported back to the Council on February 14, 1980, that two incoming "WATS" lines would be necessary, which would cost approximately $29,200 per year. This would exclude all downstate counties (approximately 70% of the membership), and calls would be nontraceable. The cost of two outgoing "WATS" lines would be $12,000 per year, and calls would again be nontraceable. The Council disapproved Resolution 79-36 because of the fiscal implications and the nontraceable aspects of the "WATS" line.

Workers' Compensation Fees — (See also Fees.)

Workers' Compensation Rating Forms (page 491). Resolution 79-35, "*Reasonable Charges to Nonmembers by County Medical Societies for Processing Workers' Compensation Rating Forms,*" which requests the Medical Society of the State of New York to endorse the principle of component county medical societies charging a reasonable fee to nonmembers for processing workers' compensation rating forms, and that said fee will apply to dues if nonmembers subsequently join the county medical society, was referred to the Council by the House.

At the meeting of the Council on October 25, 1979, it was noted that this matter had been explored with the Chairman of the Workers' Compensation Board, and that a letter requesting a formal response is to be sent to the Chairman. The Council tabled action on Resolution 79-35, pending a reply from the Chairman of the Workers' Compensation Board. The letter was sent to the Chairman, and a reply was received stating he is giving this recommendation due consideration.

It is noted in the annual report of the Committee on Workers' Compensation and Occupational Health, that at the last meeting of the Advisory Committee on the Medical Fee Schedule and Allied Problems, the Chairman stated he intends to implement reregistration of all physicians. This will not infer a completely new application process but will update existing files and make them current. The Chairman will permit county medical societies to charge a fee up to $10.00 for processing new applications for workers' compensation authorization.

◆

⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman.*

⟹ Your reference committee recommends that the Résumé of Instructions from the 1979 House of Delegates and Actions thereon by the Council, Board of Trustees, Executive Committee, Officers, Council Committees, and Governmental Agencies be filed for information.

⟹ . . . *The Résumé of Instructions from the 1979 House of Delegates and Actions thereon by the Council, Board of Trustees, Executive Committee, Officers, Council Committees, and Governmental Agencies was* **FILED FOR INFORMATION** . . .

RESEARCH AND DEVELOPMENT

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Research and Development are as follows:

George T. C. Way, M.D., *Chairman*	Dutchess
James M. Blake, M.D.	Schenectady
Lynn R. Callin, M.D.	Monroe
George L. Collins, Jr., M.D.	Erie
Ralph S. Emerson, M.D.	Nassau
Henry I. Fineberg, M.D.	Suffolk
Carl Goldmark, Jr., M.D.	New York
Walter T. Heldmann, M.D.	Richmond
George Himler, M.D.	New York
Edward Siegel, M.D.	Clinton

The Committee on Research and Development is composed entirely of past presidents, a resource which heretofore has been almost totally overlooked.

During the past year the Committee has met on four occasions. It has failed to function at the level originally envisioned because of a lack of staff support from September, 1979, to May 15, 1980. This deficiency was precipitated by the unexpected departure of the head of the computer division who also provided that principle staff function for research. It now appears that the desired staff for this committee has been attained by Ms. Deborah Siegel who joined the administration on May 15, 1980.

Of the wide variety of items on our agenda for the year, three projects have taken form, all of which we consider to be of a major significance.

Firstly, we have established a top-level relationship with the deans of the twelve medical schools in New York State. The deep cleft between medical schools and organized medicine can be bridged at this time at least on a State level. Our initial efforts to establish frank communications revealed many common interests and many common problems. There is now a glimmer of hope that both organizations, i.e., the Associated Medical Schools of New York and the Medical Society of the State of New York, may form a significant liaison to the mutual benefit of all.

Secondly, we have initiated conversations at a top level with the principal employers within New York State with the hope of establishing a working partnership with business in the form of a New York State Round Table on the "Cost of Medical Care." For almost two years our efforts in this arena have been stymied by the Hospital Association of New York State and Blue Cross/Blue Shield. Only when we made the decision to go it alone could we begin to see some fruition for this concept. Our efforts with business have been favorably endorsed with a pledge for continuing cooperation and increasing support. It is my personal opinion that this represents a real positive and major innovative first for the MSSNY.

The third project addressed by the Committee has been the pilot demographic study authorized by the House of Delegates (Resolution 79-16). This issue could not be initiated until June, 1980, because of lack of staff. However, it was given top priority by Ms. Siegel upon her arrival. The area selected for the pilot study was Nassau and Suffolk counties. Initial inquiries revealed preparatory work on a similar study by the regional HSA. At the time of this report, conversations with various sources were under way to address this issue by 1) establishing a master list of practitioners, and 2) creating a spectrum of data which we might hope to secure. This pilot study may well end up as a joint venture between various interested parties.

The thinking of the Committee at this time resolves into three phases: 1) the pilot study is invaluable to test the mechanism; 2) the entire State ultimately should be surveyed; and 3) the Empire State Medical, Scientific, and Educational Foundation should be the vehicle for the Statewide survey.

In conclusion, I would like to say that the Committee on Research and Development is beginning to acquire the stature which many of us have long envisioned. It is also beginning to fill in what has been a longstanding and quite apparent void in our organization.

The potential for this Committee is limited only by the imagination and performance ability of its members.

I urge the House of Delegates not only to endorse the activities of this Committee, but also to support strongly its philosophy of innovation and exploration as it tries to address an ever-changing role for the Medical Society of the State of New York. The problems in the health care field, not only for the patient but also for the physician, are increasingly numerous and complex. As part of its responsibility to the citizens of New York State, it behooves the MSSNY to address these problems.

We hope that the Committee on Research and Development will help the MSSNY in fulfilling its role.

Respectfully submitted,

George T. C. Way, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman.*

Your reference committee endorses the function of this Committee and strongly supports its continued activity.

⟹ Your reference committee recommends that the report of the Committee on Research and Development be filed for information.

⟹ . . . *The report of the Committee on Research and Development was* **FILED FOR INFORMATION** . . .

Resolution 80-16, Demographic Survey of Physicians in New York State

Introduced by Leonard Weitzman, M.D., Delegate, Second District Branch

Whereas, The 1978 House of Delegates referred Resolution 78-31 to the Council. The resolution called on the Medical Society of the State of New York to undertake a pilot project of doing a demographic survey of all physicians practicing medicine in the counties of Nassau and Suffolk, as a first step toward a demographic survey of health care professionals in New York State; and called for this demographic survey to be done with the full cooperation of Nassau and Suffolk County Medical Societies and to be done in such a fashion as to make the information pertinent and relevant to the multitude of health care delivery problems being presented by the federal and State regulatory agencies so as to best serve the interests of the patients and potential patients in Nassau and Suffolk Counties; and further requested that a similar survey be done Statewide if this pilot demographic survey proved to be of value; and

Whereas, The 1979 House of Delegates adopted Resolution 79-16 which called on the 1979 House of Delegates of the Medical Society of the State of New York to adopt Resolution 78-31; and requested that the demographic survey of physicians in New York State be started without further delay with the initiation of the pilot demographic survey of health care physicians. (Fiscal Note: $10,000); therefore be it

Resolved, That the 1980 House of Delegates of the Medical Society of the State of New York reaffirm Resolution 79-16; and be it further

Resolved, That the 1980 House of Delegates of the Medical Society of the State of New York receive at this House a report outlining the demographic procedures to be followed for the survey, as well as the projected date for the initiation of the pilot demographic survey of physicians in New York State.

PAST HOUSE ACTION: Resolutions 78-31, 79-16

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⟹ *Report of the Reference Committee on Reports of Officers.* The following report was presented by John T. Prior, M.D., *Chairman.*

Your Committee wholeheartedly endorses the Demographic Survey, but feels it should be on a Statewide basis, and this is actively being pursued at this time by the Committee on Research and Development.

We urge the Committee on Research and Development to give priority consideration to this project.

The Committee also recommends that the county societies encourage their membership to cooperate fully with this study by responding to questionnaires or interviews.

⟹ Your reference committee recommends that Resolution 80-16 be not adopted.

⟹ . . . *The House voted to* **NOT ADOPT** *Resolution 80-16* . . .

Resolution 80-2, Shortening the Annual Meeting of the House of Delegates of the Medical Society of the State of New York

Introduced by Medical Society of the County of Kings

Whereas, In the past several years, the number of resolutions introduced at the Annual Meeting of the House of Delegates of the Medical Society of the State of New York have been drastically reduced from 150 to about 50; and

Whereas, The reference committees have been able to complete their reports in a shorter period of time; therefore be it

Resolved, That the Medical Society of the State of New York reduce the Annual Meeting of the House of Delegates by one day, commencing in 1981.

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⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman.*

Your reference committee is sympathetic with the intent of this resolution, however, your Committee recommends disapproval of this resolution for the following reasons:

(a) There is no way to predict how many resolutions will be submitted annually.

(b) It is difficult to predict how much discussion a given resolution will generate.

(c) There is no way to predict how much time will be required to give a resolution a fair hearing.

⟹ Your reference committee recommends that Resolution 80-2 be not adopted.

⟹ . . . *The House, after considerable discussion,* **REFERRED** *Resolution 80-2 to the Council* . . .

Resolution 80-5, Distribution of Minutes of the Council of the Medical Society of the State of New York

Introduced by Tioga County Medical Society

Whereas, The House of Delegates of the Medical Society of the State of New York meets only regularly each Fall; and

Whereas, Much of the business of MSSNY is conducted by the Council; and

Whereas, The scope of these matters are of concern to many "grass roots" members; and

Whereas, County medical societies are the nexus between individual members and MSSNY; therefore be it

Resolved, That the Medical Society of the State of New York send the minutes of every meeting of the Council to the president and secretary of each component county medical society.

Fiscal Note: Approximately $800 per year for postage and mailing costs.

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⟹ *Report of the Reference Committee on Reports of Officers:* The following report was presented by John T. Prior, M.D., *Chairman.*

⟹ Your reference committee recommends that Resolution 80-5 be adopted.

After discussion, the House amended Resolution 80-5 by inserting the phrase "and the president of each State specialty society represented on the MSSNY Interspecialty Committee as well as its representative on the Interspecialty Committee" in the resolved portion and changing the fiscal note by $300. The Resolved portion would then read as follows:

Resolved, That the Medical Society of the State of New York send the minutes of every meeting of the Council to the president and secretary of each component county medical society, and the president of each State specialty society represented on the MSSNY Interspecialty Committee as well as its representative on the Interspecialty Committee.

Fiscal Note: Approximately $1100 per year.

⟹ . . . The House voted to **ADOPT** Resolution 80-5 as **AMENDED** . . .

⟹ . . . *The House voted to* **ACCEPT** *the report of the reference committee as acted upon by the House* . . .

SCIENTIFIC ACTIVITIES, PUBLICATIONS, AND MISCELLANEOUS

ADMINISTRATIVE COMMITTEE FOR THE MSSNY PENSION PROGRAM

To the House of Delegates, Ladies and Gentlemen:

The members of the Administrative Committee for the MSSNY Pension Program are as follows:

Milton Rosenberg, M.D., *Chairman*	Suffolk
G. Rehmi Denton, M.D.	Albany
Henry I. Fineberg, M.D.	Suffolk
Robert M. George, M.D.	Oneida
Edward Siegel, M.D.	Clinton

After considerable study and research, the Council and Board of Trustees approved a Retirement Program for the membership, which features many flexible options and low cost.

The Corporate version of the Pension Plan has also been approved and should be available before the end of the year, for the benefit of the physician members who practice within the framework of the Professional Corporation.

To date, over 1,000 physician members have expressed an interest in the program.

The Pension Administrative Committee was established to generally oversee the performance of the Pension Program.

Fiduciary Liability Insurance was secured for the protection of the Medical Society of the State of New York and the Administrative Committee for the MSSNY Pension Program.

Your chairman would like to thank the members of the Committee for the time and energy they devoted to Committee activities.

In addition, I would like to thank Bernard M. Jackson, CLU, Director of the Division of Insurance and Membership Benefits, and his secretary, Mrs. Sylvia Frank, for their able staff assistance.

Respectfully submitted,

Milton Rosenberg, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Scientific Activities, Publications, and Miscellaneous:* The following report was presented by John L. Clowe, M.D., *Chairman*.

The Committee felt that it should be pointed out to the members of the Medical Society of the State of New York that the MSSNY Pension Program is a new service. It is a method of providing practitioners a flexible retirement program both for incorporated and unincorporated practitioners that can be tailored to individual needs.

Fiduciary liability insurance for MSSNY and the Administrative Committee for the Pension Program has been secured. At the present time, over 1,000 inquiries have been received.

⟹Your reference committee recommends that the report of the Administrative committee for the MSSNY Pension Program be filed for information.

⟹. . . *The report of the Administrative Committee for the MSSNY Pension Program was* **FILED FOR INFORMATION** . . .

ADVISORY COMMITTEE TO THE AMERICAN ASSOCIATION OF MEDICAL ASSISTANTS, NEW YORK STATE SOCIETY, INC.

To the House of Delegates, Ladies and Gentlemen:

The members of the Advisory Committee to the American Association of Medical Assistants, New York State Society, Inc., are as follows:

Carl C. Sansocie, M.D., *Chairman*	Monroe
Anthony F. Fragola, M.D.	Suffolk
Charles Poskanzer, M.D.	Albany

The twenty-first annual meeting of the society was held April 23–27, 1980, at Kutsher's Country Club, Monticello, New York. Dorothy Sellars, CMA-A, President-Elect of National, was the PAC representative.

Anthony Fragola, M.D., attended the meeting in its entirety and Eunice Skelly, Manager, Department of Information, Medical Society of the State of New York, represented MSSNY, attending the Saturday and Sunday sessions.

Eric Sheldon, M.D., conducted an all-day workshop on "Stress Management and Biofeedback," which awarded participants Continued Education Units. Gustave Gavis, M.D., addressed the medical assistants on the subject of allergies. Henry Goldfarb, M.D., spoke on "Holography," while Gerald Burday, Ph.D., presented a program entitled "Communicating With the Handicapped." Harry V. Lynch, Esq., addressed the group on the subject of "Medical-Legal Problems Affecting the Medical Assistant."

As continued education is the primary objective of the association, it should be noted that most of the local chapters sponsored educational seminars this year, awarding the participants CEUs. In addition, these chapters included at their monthly meetings a guest speaker. An extensive educational program was presented at the Annual National Meeting held in New Orleans in October, 1979.

Also, the Eastern Central Regional Meeting will be held July 12–13, 1980, in Washington, D.C., with an extensive educational program planned.

The advisors strongly recommend that physicians not only encourage their medical assistants to become members, but to become certified. We note and commend those physician employers who have paid all or part of the medical assistant organization dues, and, in some cases, travel expenses to educational seminars. We urge the members of the MSSNY to encourage and advise their assistants to attend the meetings and seminars throughout the State.

Respectfully submitted,

Carl C. Sansocie, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Scientific Activities, Publications, and Miscellaneous:* The following report was presented by John L. Clowe, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Advisory Committee to the American Association of Medical Assistants, New York State Society, Inc., be filed for information.

⟹ . . . *The report of the Advisory Committee to the American Association of Medical Assistants, New York State Society, Inc., was* **FILED FOR INFORMATION** . . .

AWARDS AND PRIZE ESSAYS

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Awards and Prize Essays are as follows:

Alfred A. Angrist, M.D., *Chairman*	Queens
John T. Ellis, M.D.	New York
Aaron Feder, M.D.	Queens
* Steven Gaudio	New York

The Committee met on August 7, 1980, at Society headquarters to select the winner of the 1980 Albion O. Bernstein, M.D. Award competition and to discuss means of reviving interest in some of the less familiar awards.

George Köhler, Ph.D., of the Basel (Switzerland) Institute for Immunology, was chosen to be the recipient of this year's Bernstein Award, on the basis of his work on the production of monoclonal antibodies by hybridoma.

The Committee passed a recommendation that, in the future, the Bernstein Award be presented at the Annual Scientific Assembly of the MSSNY rather than at the House of Delegates meeting. This recommendation was approved by the MSSNY Council at its meeting on September 4, 1980, along with another Committee recommendation that the Bernstein Award recipient be invited to present a lecture at the Annual Scientific Assembly.

The other award programs were reviewed separately. The Committee's recommendations on each were presented to the Council on September 4, and all were approved.

The *Lucien Howe Prize* has not been awarded since 1972. The terms of the Howe bequest stipulate that the award be for the "best original contribution to some branch of surgery — preferably ophthalmology." The Committee recommended the following policy changes in the administration of the award: (1) That the award not be based on an essay, but that it be for a lecture at the Scientific Assembly. The restriction limiting competition to interns and residents would be dropped. (2) That the award be made available annually, rather than every three years. (3) That the amount of the award be determined each year by the amount of interest earned on the fund, rather than being set arbitrarily at $200. The Howe Fund presently totals over $16,000, and the interest to be earned in 1980 is expected to be approximately $1700.

The *Merit H. Cash Prize* competition has also suffered from a lack of physician interest in recent years, primarily because the award has been so small ($200). However, unlike the Howe Prize, there are not sufficient funds to permit increasing the amount of the award substantially. It is projected that the fund will earn approximately $300 in interest in 1980. An award of this size does not seem to be worth the effort of competition for resident physicians in this day and age; therefore a recommendation was made to consider instituting a Statewide essay contest for high school students.

It was decided that the Communications Division would submit a plan for the administration of such a contest, after consultation with the State Education Department.

The *A. Walter Suiter Lectureship Fund* was established under the terms of the will of Dr. Suiter, a past president of the MSSNY, who died in 1925. By the terms of the will, the lecturer is designated by a committee selected by the Society. The Committee must determine the subject of the lectures and the lectures are to be delivered annually before the regular general meetings of the Society. There are no restrictions on the Society as to the amounts paid as honoraria, but in 1941 the Board of Trustees fixed the honorarium at $50, and in 1959 it was changed to $100. The Suiter Fund presently totals over $17,000 and the projected interest for 1980 is $1800.

The Committee recommended that the lectureship be awarded annually for an address (which could be on a nonmedical subject) presented at the Scientific Assembly, and that the amount of the award be determined each year by the amount of interest earned on the fund.

Respectfully submitted,

Alfred A. Angrist, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Scientific Activities, Publications, and Miscellaneous:* The following report was presented by John L. Clowe, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Committee on Awards and Prize Essays be filed for information.

⟹ . . . *The report of the Committee on Awards and Prize Essays was* **FILED FOR INFORMATION** . . .

COMMUNICATIONS

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Communications are as follows:

Richard B. Nolan, M.D., *Chairman*	New York
George W. Benninger, M.D.	Orange
Edward C. Hughes, Jr., M.D.	Onondaga
William C. Stein, M.D.	Niagara
* Olivia N. Serdarevic	New York

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* Medical Student

* Medical Student

The Committee on Communications met on November 16, 1979 and March 6, 1980.

At its November 16 meeting, the Committee noted the growing number of physicians who are advertising. This advertising, the Committee believes, has been given impetus by the FTC ruling.

The Committee commended favorably on the latest edition of the MSSNY Position Paper manual produced under the direction of Deputy Executive Vice-President Edward Siegel, M.D.

On January 17, 1980, the Council and the Board of Trustees approved the recommendation of the Communications Committee that MSSNY conduct a pilot seminar to evaluate the potential for training physicians in public communication skills: e.g. radio and television appearances, newspaper interviews, etc. Since the pilot workshop was to determine whether MSSNY should budget funds to sponsor additional workshops, it was deemed appropriate that the officers and councilors making the decision should experience the training and judge its value firsthand. The seminar, with officers and councilors in attendance, was held on April 17 and 18. The questionnaires distributed at this workshop unanimously approved of the workshops "as a valuable experience for medical communicators" and recommended "that MSSNY should make this training experience available to key county medical society communicators on a regularly budgeted basis."

Therefore the recommendation of the Communications Committee that MSSNY annually conduct such workshops in appropriate locations throughout the State was approved by the Council and the Board of Trustees. The cost of the workshops (not including participants' expenses) will be borne by MSSNY. Participants will be designated by their county medical society. The budget approved by the Board of Trustees was not to exceed $12,000 for three workshops. The dates and locations of these workshops will be announced in September, 1980.

The Committee also developed a new symposium concept designed to promote mutual understanding of the needs, interests, and operations of both the news media and the medical profession, in order to generate fair, accurate, and responsible reporting of medical news. A recommendation subsequently was made to the Council for a symposium which would include a panel discussion by leading professionals in communications: Irving Rosenthal, MSSNY Editorial Consultant and former Director of the Communications Program at City College of New York; L. Richard Guylay, a pioneer in political and organizational public relations; Kalman Seigel, member of the editorial board of The New York Times in charge of Letters to the Editor; and Earl Ubell, Health and Science Editor for WCBS-TV. The Council and the Board of Trustees approved the project and the symposium was successfully conducted in New York City on May 15. Comments received from the 71 people who attended indicated that the symposium was a good training experience and that with modifications it might be worth conducting again. An innovation was the videotaping of the entire program to determine whether a cassette condensation of the highlights of the symposium will be useful to groups throughout the State. It is expected that production of the videotape cassette will be completed in September and its application and distribution will then be determined.

On March 6, 1980, the Committee continued discussion relative to the publication of a brochure on the rising cost of health care which would be offered in quantity to members at cost for distribution to their patients. Coincidentally, the Committee on Cost Containment independently conceived of the same need and a majority of the Committee recommended that it be offered to all physicians.

The Committee discussed an invitation from the New York State Energy Office that MSSNY submit recommendations relative to the availability of gasoline to physicians in the event of another gasoline shortage. The Committee agreed our recommendations must be "equitable, fair, and in the public interest" in order to be accepted by the State. The outline for an editorial was developed and referred to Executive Vice-President Henry I. Fineberg, M.D., whose related editorial appeared in the *News of New York* on May 1, 1980. The position of MSSNY relative to the gasoline shortage was reiterated in his editorial in the *News of New York* on June 15, 1980.

Respectfully submitted,

Richard Nolan, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Scientific Activities, Publications, and Miscellaneous:* The following report was presented by John L. Clowe, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Committee on Communications be filed for information.

⟹ . . . *The report of the Committee on Communications was* **FILED FOR INFORMATION** . . .

GENERAL INSURANCE

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on General Insurance are as follows:

Robert M. George, M.D., *Chairman*	Oneida
Renzo Basili, M.D.	Kings
Maurice J. Elder, M.D.	St. Lawrence
John Alan Ramsdell, M.D.	Westchester
Charles E. Rogers, M.D.	Nassau
Irwin J. Rosenberg, M.D.	Broome
William C. Stein, M.D.	Niagara
Kenneth W. Woodward, M.D.	Monroe

The Committee on General Insurance is pleased to announce that there are approximately 8,701 participants in the Medical Society of the State of New York Supplemental Insurance Programs. Group Life, Disability Income, Professional Overhead Expense, In Hospital Indemnity, and an Accidental Death and Dismemberment Insurance Program are available for our physician members. Physician participation increased in all plans this past year. All of our group insurance programs feature a special renewal guarantee.

The Group Life Insurance maximum was increased to $100,000.

We have been advised by the underwriters of our Group Life Insurance Program, the Bankers Life of Des Moines, Iowa, that our group has earned a dividend of 66.4% of the annual premium for this year. This will be distributed to the participating physician members in the program.

Since the inception of the Group Life Insurance Program, the underwriting company has paid over $500,000 in dividends to physician members insured under the plan. The insurance programs underwritten by the Continental Insurance Companies have paid over $6,000,000 in benefits to physician members since the programs were installed. Many insured physicians have written letters to the Medical Society of the State of New York which are highly laudatory of the fast claim payment service.

Staff and the General Insurance Committee continue to explore and review other forms of insurance for the personal and professional needs of the membership. These include a Disability Benefits Law Insurance Program, an optional increased benefit in the supplemental Disability Income providing for additional lump sum payments to members returning to practice following disability, a Major Medical Plan, a Medicare Supplement, and Group Property and Casualty Insurance. It should be noted that the underwriting market for some of these plans is limited, due to the adverse experience throughout the insurance industry.

Your chairman would like to thank the members of the Committee who have contributed a considerable amount of their time and energy to the work of this Committee.

Also, I would like to take this opportunity to thank Bernard M. Jackson, CLU, and his secretary, Mrs. Sylvia Frank, for their able staff assistance.

Respectfully submitted,

Robert M. George, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Scientific Activities, Publications, and Miscellaneous:* The following report was presented by John L. Clowe, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Committee on General Insurance be filed for information.

⟹ . . . *The report of the Committee on General Insurance was* **FILED FOR INFORMATION** . . .

LIBRARY AND ARCHIVES

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Library and Archives are as follows:

Albert M. Schwartz, M.D., *Chairman*	New York
Eliza H. Caldwell, M.D.	Westchester
Marks G. Jacoby, M.D.	Suffolk
Albert B. Lowenfels, M.D.	Westchester
Harriet Northrup, M.D.	Chautauqua
* Stuart Wachter	The Bronx

The activities of the Albion O. Bernstein Library during the past year were reviewed. Acquisition and usage statistics remained fairly constant with the exception of interlibrary loans. Requests for these have greatly increased because the National Library of Medicine, which previously had a program of subsidy for Regional Central Libraries for this purpose has cut off funds and now libraries have to fend for themselves or pay a $5.00 fee for each loan filled. A bill was introduced in the New York State Legislature, and the Society was asked to support it, which, among other things, would provide money for these interlibrary loans on a limited basis.

Drs. Angrist and Siegel payed a visit to the Olin Library of Cornell University in Ithaca, New York, last November to look into the matter of our archival holdings on deposit with their Department of Manuscripts and University Archives. Their discussion with the head of the department resulted in a letter to us stating the importance of the preservation of documents emanating from our society to research and to history. It also included a detailed list of our holdings together with a plan to make these documents accessible and retrievable. Implementation of these suggestions are now under consideration. Plans are also being formulated for ongoing identification and orderly withdrawal of those documents that are deemed suitable and judged desirable for future inclusion in the archival collection.

The microfilming of the *New York State Journal of Medicine,* the transactions of the Society, and the old directories, has entered an active phase. An agreement has just been concluded with University Microfilms International, in Ann Arbor, Michigan, for the microfilming of the current and future editions of the Journal as well as all the back issues. The project will take some time to complete and will cost us nothing, in fact we will receive royalties from any sales generated. As it is believed that the transactions and the old directories have commercial value too, the same company has been approached to work out a similar agreement with these volumes as has been done with the Journal. We are now awaiting their response.

Old medical instruments continue to be donated to the Library. It is hoped that in the near future a display case can be set up with the more Interesting items.

This report was circulated and approved by the members of the Committee.

Respectfully submitted,

Albert M. Schwartz, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Scientific Activities, Publications, and Miscellaneous:* The following report was presented by John L. Clowe, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Committee on Library and Archives be filed for information.

⟹ . . . *The report of the Committee on Library and Archives was* **FILED FOR INFORMATION** . . .

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* Medical Student

MEDICAL SCHOOL RELATIONSHIPS

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Medical School Relationships are as follows:

Richard N. Pierson, Jr., M.D., *Chairman*	New York
Robert Bourke, M.D.	Albany
Patricia Kelly McCarthy, M.D.	Suffolk
Julius E. Stolfi, M.D.	Kings
* Justin Schechter	Suffolk

This Committee was established in 1979 with the goal of exploring the too inactive interface between organized medicine and the many and distinguished medical schools in the State. The Committee has proceeded based on these facts:

a. Medical school interactions with organized medicine are nearly invisible, although they occur, particularly at Upstate medical schools, with reasonable effectiveness.

b. The "desirability" (or even "necessity") of involving academic and teaching resources in certain MSSNY areas is overwhelming.

c. Perhaps most important, today's students — tomorrow's professional colleagues — are not well exposed to several very critical aspects of medical care. This occurs in part because faculties are frequently not closely in touch with the current practice of medicine, particularly with regard to the legal, regulatory, and political environments of both office and hospital practice.

This Committee continues to believe that its role is to "Think Ahead." Weakness in membership hurts. Weakness in "town-gown" understanding hurts. Increasing the quality, as well as the quantity, of the attention MSSNY pays to its medical schools, their faculties and their students, addresses these problems.

The Committee met four times during the year, addressing the goal of discovering specific projects which would increase the quantity and quality of the interactions between organized medicine and the 12 medical schools in the State. Our focus was primarily towards the deans and faculty.

A meeting was arranged between the deans of the Associated Medical Schools of New York and the leaders of MSSNY — President Denton, President-Elect Schwartz, Immediate Past-President Way, and your Committee Chairman. Dr. C. H. William Ruhe, Senior Vice President, of the AMA also attended and spoke. An exchange of AMA, MSSNY, and medical school viewpoints was shared. The Committee proposed participation by medical schools in quality control of the MSSNY continuing medical education programs, as well as projects combining school and county medical society resources on medical service to underserved areas. Another project, involving development of a curriculum for teaching of medical ethics, was suggested for later implementation.

Progress in achieving these goals was partial. The MSSNY Committee on Continuing Medical Education passed a resolution to facilitate faculty participation in accreditation activities; however, it was not possible to increase the membership of the Committee on Medical School Relationships sufficiently to initiate the more ambitious projects in each medical school service area. The concept behind these projects (designed to place a very visible, working partnership involving faculty, students, practitioners, and community hospitals in the view of legislators and community politicians and the public), will be reevaluated for possible implementation in the coming year.

The Committee is particularly grateful to its member Julius E. Stolfi, M.D., for his many useful suggestions, and to Guy Beaumont and his staff for their management of Committee activities.

Respectfully submitted,

Richard N. Pierson, Jr., M.D., *Chairman*

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⟹ *Report of the Reference Committee on Scientific Activities, Publications, and Miscellaneous:* The following report was presented by John L. Clowe, M.D., *Chairman.*

The reference committee wholeheartedly agrees with the concepts contained in the report of the Committee and endorses the continuing dialogue between the faculty, students, practitioners, and community hospitals. The Committee urges the Council to closely follow the results.

⟹ Your reference committee recommends that the report of the Committee on Medical School Relationships be filed for information.

⟹ . . . *The report of the Committee on Medical School Relationships was* **FILED FOR INFORMATION** . . .

MEMBERSHIP

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Membership are as follows:

Duane M. Cady, M.D., *Chairman*	Onondaga
James H. Cosgriff, Jr., M.D.	Erie
William L. Craver, M.D.	Monroe
Robert M. Farrell, M.D.	Queens
Martin Markowitz, M.D.	Kings
Seymour R. Stall, M.D.	Dutchess
Patricia G. Squillace, M.D.	Nassau
Nicholas P. Teresi, M.D.	Albany
Robert B. Wallace, M.D.	Oneida
* John T. Farrar	Monroe

The mission and purpose of the Committee is to develop interest in Federation membership through every possible means and to create every possible incentive for members to continue to support organized medicine.

The Committee held a meeting on Thursday, November 8, 1979, in Syracuse.

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* Medical Student

* Medical Student

A newly designed application form produced by the Ad Hoc Committee chaired by Nicholas P. Teresi, M.D., was approved by the Committee. The form has been printed and distributed to all county medical societies.

Concern was expressed by the Committee over the possibility that current CME membership requirements will result in a significant loss of members in 1981. It was reported that governmental pressures for CME have dissipated recently and MSSNY might, therefore, reevaluate its policies.

Concern was also expressed over the extended waiting periods for the induction of new members by some county medical societies. These delays are caused by bylaws, the machinery of processing, only having two society meetings per year or having only one induction meeting per year. They result in negative first impressions (of organized medicine,) and also create for some new members a serious delay in the purchase of insurance. This is a major deterrent to recruitment of new members: many physicians opt instead to purchase inexpensive membership in pseudo medical organizations offering comparable insurance benefits.

The Communications Division staff was charged with developing a new, comprehensive membership promotion plan for 1980–81. (This work is nearing completion and will be submitted to the Executive Vice-President for first approval in August.)

Discussion continued on the need to establish uniform classes of membership among the county medical societies to conform to MSSNY bylaws. Consideration will be given to this need in the new membership plan.

The Committee recommended that MSSNY take advantage of the new resident dues (10% of active member dues) as an incentive for membership and by applying the nonmember differential in the registration fee of resident workshops to MSSNY membership. Interestingly, the application of this recommendation resulted in 38 new resident members in 1980 (from four workshops — 34% of attendance.)

With the improvement in quality and speed of the MSSNY computer services current member and nonmember lists are delivered as requested to county medical societies in order to up-date both county and MSSNY records.

The Committee continues to believe that the foremost effort for attracting new members should be placed on resident physicians and physicians newly licensed to practice in New York State.

Respectfully submitted,

Duane M. Cady, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Scientific Activities, Publications, and Miscellaneous:* The following report was presented by John L. Clowe, M.D., *Chairman.*

Some concern was expressed in the discussion of the annual report of the Committee regarding the fact that there is a possible loss of membership if the current CME requirements continue. However, the reference committee feels that it is far too premature to evaluate this until 1982, or some time in the future. As members of the Medical Society of the State of New York, we feel it is a step in the right direction to maintain the CME Accreditation Program, to produce the assurance of quality medical care, and fulfill our professional responsibilities.

⟹ Your reference committee recommends that the report of the Committee on Membership be filed for information.

⟹ . . . *The report of the Committee on Membership was* **FILED FOR INFORMATION** . . .

MEMBERSHIP BENEFITS

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Membership Benefits are as follows:

John G. Hamilton, M.D., *Chairman*	Monroe
John L. Green, M.D.	Monroe
Kenneth Ho, M.D.	Onondaga
Karl Neumann, M.D.	Queens
Perry Robins, M.D.	New York
Thomas J. Sheehy, Jr., M.D.	Nassau

The theme "Membership Pays, It Does Not Cost" continued to be developed and expanded by the Division of Insurance and Membership Benefits. New benefits, including business machines, copying equipment, an international travel service, a unique telephone wholesale buying service of major and minor appliances as well as gift items, were researched by staff for the Membership Benefits Committee, reviewed by the Committee members, and then referred to the Council for approval. All programs feature special discounts and services for our physician members and their families.

The Membership Benefits Committee and staff developed the Physicians Benefits Journal, which is a new magazine that highlights our membership benefits programs and contains special articles concerning them.

Thousands of requests from our physician members, both written and telephoned, are serviced annually in a highly professional manner. An analysis of these requests show the most popular programs to be: Purchasing and Leasing Cars at group discounts, Major Appliances at wholesale prices, and our Group Insurance Programs.

The Committee will continue to explore all meaningful programs befitting the image of the Medical Society of the State of New York.

Your chairman would like to thank the members of the Committee for the time and energy they devoted to Committee activities.

In addition, I would like to thank Bernard M. Jackson, CLU, Director of the Division of Insurance and Membership Benefits, and his secretary, Mrs. Sylvia Frank, for their able staff assistance.

Respectfully submitted,

John G. Hamilton, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Scientific Activities, Publications, and Miscellaneous:* The following report was presented by John L. Clowe, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Committee on Membership Benefits be filed for information.

⟹ . . . *The report of the Committee on Membership was* **FILED FOR INFORMATION** . . .

PUBLICATIONS

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Publications are as follows:

Milton Gordon, M.D., *Chairman*	Suffolk
Arthur H. Diedrick, M.D.	Westchester
Alfred A. Angrist, M.D., *ex officio*	Queens
Julius E. Stolfi, M.D., *ex officio*	Kings
* Dan Courtade	Monroe

The following recipients of the Redway Award and Medal and William Hammond Award for Distinguished Service for 1979-1980 have been approved by the Committee:

Redway Award and Medal for medical writing: To Harold L. Atkins, M.D., for his article entitled "Emission Tomography" which appeared in the August, 1979, issue of the *Journal.*

Hammond Award for Distinguished Service: To Steven D. Douglas, M.D., for dedication in reviewing manuscripts.

The Annual Report covers the period October, 1979, to June, 1980, and has been approved by the Publications Committee.

To reduce the backlog of Case Reports, it was decided to publish at least six per issue; the plan was successful, and it is now possible to accept Case Reports for consideration. It is felt that Case Reports are excellent teaching tools.

The *New York State Journal of Medicine* continues to be published on a monthly basis and is reported to be one of the top publications requested in medical libraries. Included during this period was much official material concerning the Medical Society of the State of New York, special presentations prepared and indexed under the direction of Irma Erickson, Executive Associate. The December issue included a page of County Officers and the revised Bylaws (20 pages.) The Continuing Medical Education Preliminary Program appeared in March, with 12 pages, and in April the Medical Society Committees were published on 6 pages. Part II of the February issue contained the Minutes of the House of Delegates Annual Meeting, September 16 to 20, 1979; this was 224 pages with covers and 2 pages of advertising matter.

Material appearing in the *Journal* is listed in semiannual indexes that are published in December and June. This year it has been possible to computerize the indexes, which makes for greater efficiency and saves much time.

The Publications Committee, under Milton Gordon, M.D., Chairman, is responsible for reviewing matters of policy, particularly in reference to new members of the Associate Editorial Board. The *Journal* maintains its preeminent position because of the painstaking, conscientious, and capable service rendered over these many years by the Editorial Board. We are enormously grateful for their invaluable contribution.

During this period, the nine months, October through June, 375 manuscripts were received and 102 rejected; 130 were sent to consultants, and finally, a total of 232 manuscripts were published. Also included are reports and opinions reflecting special concerns of the Medical Society: malpractice, hospital costs, and proposed government health care programs.

The *Journal* continues to accept original work and work of an experimental nature as well as clinical presentations. Deliberate support is given to practical and pragmatic presentations which can help the physician in his daily practice. To this extent the *Journal* is more pragmatically oriented than many other publications.

Advertisements run throughout the *Journal* without, however, breaking up articles. During this period, the gross advertising yield was $153,867.10.

Of the total of 1,736 pages, including covers, 1,448.5 were editorial pages (inlcuding the Minutes, Reports, Continuing Medical Education Preliminary Program, and What Goes On,) and 285.5 (plus 2 pages in the February Part II Minutes) were advertising pages. The percent ratio of editorial to advertising was 84/16.

Alfred A. Angrist, M.D., editor; Julius E. Stolfi, M.D., associate editor; Elizabeth C. Smith, managing editor; Frances E. Casey, editorial production; Cecilia M. Scafuro, manuscript editor, index, programs, and copy; Audrey Hudson, copy editor; Adela Berkwitz, secretary and copy editor; Eleanor Burns, reprints and clerk-typist; and Robert Miller, advertising production, continue in their respective duties.

It seems appropriate for all of the assistance that our Associate Editorial Board has rendered over the years, that we list their names:

Anthony A. Albanese, Ph.D.
Lloyd T. Barnes, M.D.
Jeremiah A. Barondess, M.D.
Joshua A. Becker, M.D.
Stuart Bondurant, M.D.
Albert Cook, M.D.
Seymour Cutler, M.D.
William Dock, M.D.
Vincent P. Dole, M.D.
Steven D. Douglas, M.D.
Aaron Feder, M.D.
Vincent J. Fontana, M.D.
Lytt I. Gardner, M.D.
Carl Gemzell, M.D.
Carl M. Harris, M.D.
Alfred P. Ingegno, M.D.
Ralph F. Jacox, M.D.
Ira Snow Jones, M.D.
Leslie A. Kuhn, M.D.
George J. Lawrence, Jr., M.D.
Harry M. LeVeen, M.D.
Gerald P. Murphy, M.D.

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* Medical Student

Stephen Nordlicht, M.D.
Richard H. Orr, M.D.
Edmund D. Pellegrino, M.D.
Ira Polisar, M.D.
Paul Reznikoff, M.D.
Howard A. Rusk, M.D.
Henry Schutta, M.D.
Joseph E. Snyder, M.D.
Bjorn Thorbjarnarson, M.D.
Vincent Tricomi, M.D.
Robert Turell, M.D.
James H. Wall, M.D.
Robert P. Whalen, M.D.
Frank M. Woolsey, Jr., M.D.
Melvin D. Yahr, M.D.
Alex W. Young, Jr., M.D.

Respectfully submitted,

Milton Gordon, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Scientific Activities, Publications, and Miscellaneous:* The following report was presented by John L. Clowe, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Committee on Publications be filed for information.

⟹ . . . *The report of the Committee on Publications was* **FILED FOR INFORMATION** . . .

SCIENTIFIC PROGRAM

To the House of Delegates, Ladies and Gentlemen:

The members of the Scientific Program Committee are as follows:

Stephen Nordlicht, M.D., *Chairman*	New York
Thomas S. Bumbalo, M.D., *Assoc. Chairman*	Erie
Joseph J. Kaufman, M.D., *Assoc. Chairman*	Ontario
Martin Lipkin, M.D., *Assoc. Chairman*	New York
A. W. Martin Marino, Jr., M.D., *Assoc. Chairman*	Kings
Maxwell Spring, M.D., *Assoc. Chairman*	The Bronx
Leo J. Swirsky, M.D., *Assoc. Chairman*	Kings
Bernard J. Pisani, M.D., *Advisor*	New York

The academic year of 1979–1980 has seen a sharp increase in the activities of this Committee. For the first time in recent memory the meeting of the House of Delegates is being held separately from what was previously called the Annual Scientific Program. The Committee has informally renamed this meeting the Annual CME Assembly and hopes for an eventful Bylaws change which will make this official.

The first CME Assembly was held at the Rye Town Hilton Hotel, Port Chester, New York, April 25, 26, and 27, 1980, and was very favorably received by the more than 1200 physicians who attended. Statistical reports for this meeting and for the meeting of September 15, 16, and 17, 1979, are appended (Appendix "A".) The Committee is encouraged at the success of this first attempt at a separate educational meeting and is optimistically looking ahead to an even more successful Assembly at Niagara Falls, June 26, 27, and 28, 1981.

The fall of 1979 also saw the inauguration of a new series of CME Video Clinics in several areas of Upstate New York. These Video Clinics are produced by the AMA and presented by MSSNY as innovative, inexpensive, and conveniently located programs of CME for nonurban physicians in the State. Three programs were each presented in five cities before a total attendance of 275 physicians who received them very enthusiastically and indicated, almost unanimously, a desire for a continuation of this type of program. We are therefore continuing with a new series this fall in six Upstate cities. The schedule (Appendix "B") has been mailed to about 6,000 of our Upstate members.

Another programming innovation is being instituted on October 19, 1980, when MSSNY is sponsoring a program on "Medicine and Religion" which is being organized by this Committee. This one-day program will feature a number of outstanding and well-known speakers from the field of medicine, religion, and the press. It will be held at Rockefeller University and the Committee contemplates similar meetings in the future in other parts of the State.

A total of 11 exhibits were presented this year, compared to 27 in 1979.

The Upjohn Company's cash award of $150 and an impressive plaque were presented to George L. Hines, M.D., Nassau Hospital, Mineola, New York, for his instructive and well presented exhibit, "The Mobile Cardiac Shock Van."

Several other exhibits competed for the first place award for their originality and educational excellence.

The Committee is of the opinion that scientific exhibits at the Medical Society of the State of New York Annual CME Assembly should be discontinued unless there is a substantial increase in quality and quantity in 1981 at Niagara Falls.

Respectfully submitted,

Stephen Nordlicht, M.D., *Chairman*

APPENDIX "A"

Attendance Figures for 1979 Meeting

Physicians	2,183
* Allied Profession	382
Guests	240
Total	2,805

Attendance Figures for 1980 Meeting

Physicians	1,334
* Allied Profession	102
Guests	91
Total	1,527

Comparative Figures

	1977	1978	1979	1980
Physicians	2,388	2,437	2,183	1,334
* Allied Profession	769	610	382	102
Guests	296	296	240	91
Total	3,453	3,343	2,805	1,527

* Includes: Dentists, Ph.D.s, medical students, nurses, medical technicians, physicians' assistants, etc.

APPENDEX "B"

CME Video Clinics Schedule
Fall 1980

Title of CME Clinic	Locations of all CME Clinics					
	BATH	AMSTERDAM	SARANAC LAKE	WATERTOWN	POTSDAM	OLEAN
Neurological Examination 7 Cat. 1 credits	SEPT. 6	SEPT. 6	SEPT. 13	SEPT 11	OCT. 11	SEPT. 20
Headache and Neck Pain 6 Cat. 1 credits	OCT. 4	OCT. 25	OCT. 11	OCT. 16	SEPT. 13	OCT. 25
Comatose & Multiple Traumatized Patients 7 Cat. 1 credits	NOV. 8	NOV. 15	NOV. 8	NOV. 6	NOV. 15	NOV. 22

⟹ *Report of the Reference Committee on Scientific Activities, Publications, and Miscellaneous:* The following report was presented by John L. Clowe, M.D., *Chairman.*

The Committee noted that the attendance figures for the first meeting of the CME Assembly had dropped from previous years; however, since this is the first of the separated scientific sessions, it is our hope that this trend will be reversed and that we continue to watch this with interest in future years. In view of the reduced attendance, in our opinion, it might be wise to postpone the introduction of a Bylaws change which will make the annual CME Assembly official as suggested by the Committee until the success of the new format can be evaluated in the future.

⟹ Your reference committee recommends that the report of the Scientific Program Committee be filed for information.

⟹ . . . *The report of the Scientific Program Committee was* **FILED FOR INFORMATION** . . .

STUDENT MEMBERSHIP OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

To the House of Delegates, Ladies and Gentlemen:

On Friday, February 8, 1980, at MSSNY Headquarters there was a meeting of the Medical Student Representatives with Executive Vice-President Henry I. Fineberg, M.D. The following were present:

John T. Farrar, *Chairman*
Arthur W. Perry, *Vice-Chairman*
Matthew J. Kuhn, *Secretary-Treasurer*
Thomas G. Pasternac, *Delegate*

Guy D. Beaumont, Director, Communications Division
J. Richard Burns, J.D., General Counsel
Eugene Dombrowski, Director & Comptroller, Division of Finance
George J. Lawrence, Jr., M.D., Director, Division of Scientific Affairs

A number of announcements of policy were made and conclusions were reached.

Dr. Fineberg advised the medical students that there will be no student member dues for 1980. It was agreed that some students will join merely because membership is free but that dues, however, nominal, will reduce the number of student members. Student members present said medical students hear little about organized medicine and that students apparently decide on joining with very limited knowledge. One idea considered was to have the students subscribe to the Journal but have free membership. John Farrar said that if the cost of the Journal was the problem, he would prefer no dues and that the students did not receive the Journal. It was also proposed by the students that MSSNY have no dues the first and second year, dues in the third and fourth year. This would gain the most members and later, after communication with MSSNY, determine whether the students are really sincere about membership. No decision was made relative to dues for 1981 and after. Doctor Fineberg said MSSNY invites the students to study and make suggestions relative to student member dues. Doctor Lawrence pointed out that paying dues gives one a sense of belonging, of responsibility, that it is a token of sincere interest.

MSSNY Bylaws, it was pointed out, provide student members with the same rights as active members. The Bylaws stipulate who is eligible for student membership, the benefits the student member is entitled to receive, that one student member delegate is eligible for each 1,000 student members to a maximum of three delegates. Discussion brought agreement that the student members should hold two meetings each year. One will be a "spring caucus," the other a meeting the day prior to the MSSNY annual meeting, and in the hotel used by MSSNY.

Doctor Fineberg agreed to ask the Budget Committee for an allocation of up to $1,000 to underwrite the expenses of two student member representatives to the spring caucus from each of the twelve medical schools, a total of 24 student members. At the spring caucus the student representatives, with the assistance of their MSSNY staff counselor, will develop resolutions to be submitted to the House of Delegates. Such resolutions must be submitted 30 days prior to the annual meeting.

In addition, at the spring caucus a list will be drawn up of medical students recommended for appointment to committees by the incoming MSSNY president.

The second meeting of the 24 student representatives will be held in the Booth Room of the Grand Hyatt Hotel. MSSNY will pay $100 of the expenses of 12 of the medical student representatives. The total $1,200 expense money will be paid to the 12 elected representatives but it can be used by the 24 student members as they see fit. At this meeting the representatives will elect the number of delegates and alternate delegates according to the Bylaws and their current membership. It is expected that the delegates and alternate delegates will be from amongst the 24 medical school representatives present at the caucus.

The expenses of the elected medical school delegates and alternate delegates attending the meeting of the House of Delegates will be paid by MSSNY.

In the past there has been a petty cash fund to cover postage and other incidentals of the medical student group. Doctor Fineberg indicated that MSSNY will continue to pay such sundries.

Mr. Guy D. Beaumont, Director, Communications Division, was appointed MSSNY representative to the medical students. He will be present at each meeting of the medical students to assist them with their resolutions and in other ways. The students were asked to consider their present constitution and bylaws and with the assistance of Mr. Beaumont develop their recommendations for revision.

A meeting of the Student Membership Representatives was held on April 6, 1980, at Columbia University.

The following members were present:

John T. Farrar, *Chairman*	University of Rochester School of Medicine and Dentistry
Arthur W. Perry, *Vice-Chairman*	Albany Medical College of Union University
Matthew Kuhn, *Secretary-Treasurer*	Upstate Medical Center
Charles Cattano	Upstate Medical Center
Jeffrey Dresner	New York Medical College

The meeting was called to order at 11:00 a.m. The first order of business was a consideration of membership dues. It was agreed that the idea of dues for students as a means of showing support for the MSSNY would probably work. However, requiring such support from students who have no knowledge of the MSSNY or what it does would be detrimental to the goal of increasing involvement in the Society. Therefore it was unanimously decided that if dues are felt to be necessary they be minimal ($3-$5) and be applied only for the last two years of medical school. The first two years would allow students to become acquainted with the Society by joining free and hopefully become active participants in local and Statewide projects and committees. Given the small number of students present it was felt necessary to contact the other representatives for a vote. John Farrar was assigned this task. The dues recommendation noted above was discussed with representatives from each school except Downstate (no representative) and was passed by unanimous vote.

Other topics of discussion included:

1. New bylaws for the student representatives: Arthur Perry was assigned the task of formulating a draft for the next meeting.
2. Student representatives election procedures: Here it was pointed out that students need the approval of their school student government to be certified as a representative of that school. This leaves the method of selection up to each school but that in all cases the selection process should take place in the fall of each year.
3. Membership drive for fall of 1980
   a.) Distribute a general letter to all incoming students.
   b.) Have the current representative at each school talk to the new students and encourage membership at the time of orientation if possible.
4. MSSNY Committees
   a.) Each representative is to submit a list of interested students with special qualifications to the Chairman.
   b.) The Chairman using a blind random draw shall select individuals for official recommendation to the MSSNY.
   c.) All those students currently on committees who will be students 1980-1981 who wish to will be again recommended for that committee.
5. Delegates to the Medical Society of the State of New York annual meeting:

Jeffrey Dresner — New York Medical College
Chak Tom — New York University School of Medicine
Charles Cattano — Upstate Medical Center

The meeting was adjourned with plans for the next meeting the day prior to the meeting of the House of Delegates.

Respectfully submitted,
John T. Farrar, *Chairman*

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⟹ *Report of the Reference Committee on Scientific Activities, Publications, and Miscellaneous:* The following report was presented by John L. Clowe, M.D., *Chairman.*

⟹Your reference committee recommends that the report of the Student Membership of the Medical Society of the State of New York be filed for information.

⟹ . . . *The report of the Student Membership of the Medical Society of the State of New York was* **FILED FOR INFORMATION** . . .

Resolution 80-50, Feasibility of Establishing an Insurance Company to Provide Services Directly to the Consumer

Introduced by Medical Society of the County of Orange, Inc.

Whereas, The Immediate Past President and the Executive Vice President of the American Medical Association spoke to the House of Delegates of the Medical Society of the State of New York in convention in 1979; and

Whereas, Each mentioned in his address the fact that the AMA had established a dialogue with the top ninety companies of the Fortune "500"; and

Whereas, The dialogue consisted of problems that the corporate employers had experienced as purchasers of health insurance for their employees, and the cost of such insurance; and

Whereas, Dialogue between the medical profession and the purchasers of health insurance would be enhanced if the physician could be in a position to provide the actual insurance on a competitive basis; and

Whereas, The doctor-owned and doctor-run Medical Liability Mutual Insurance Company spends only 5% of income for operating costs, compared with 15% for commercial companies; and

Whereas, An increased physician involvement in the financing of medical care would enhance, strengthen, and augment their relationship with hospitals and patients; therefore be it

Resolved, That the Medical Society of the State of New York through its Committee on General Insurance investigate the feasibility of establishing an insurance company (similar to that established in the malpractice insurance area) to sell health insurance to consumers so that a direct relationship, with all that it implies, could be established between the physician who renders this service and the consumer who receives the service.

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⟹ *Report of the Reference Committee on Scientific Activities, Publications, and Miscellaneous:* The following report was presented by John L. Clowe, M.D., *Chairman.*

In view of the overwhelming testimony of those present at the hearing, your reference committee feels that because of the magnitude of the undertaking, as well as the high cost, it goes far beyond the purview of the medical profession and raises serious questions not only of conflict of interest but possible antitrust implications. In addition, no fiscal note was submitted. Therefore your reference committee recommends that Resolution 80-50 be not adopted.

⟹ . . . *The House, after discussion, voted to* **NOT ADOPT** *Resolution 80-50 . . .*

Resolution 80-15, Summary of the Official Positions of the Medical Society of the State of New York

Introduced by Leonard Weitzman, M.D., Delegate, Second District Branch

Whereas, The first edition of the Summary of the Official Positions of the Medical Society of the State of New York was issued in June, 1977; and a second edition was sent to presidents, secretaries, executive directors/secretaries, and public relations staff of component county medical societies, and presidents of district branches in October, 1979; and

Whereas, The Medical Society of the State of New York is recognized as the official spokesman for organized medicine in New York State; and

Whereas, The Official Positions of the Medical Society of the State of New York must change in accord with the changing systems of health care delivery in New York State; therefore be it

Resolved, That an updated edition of the Position Papers of the Medical Society of the State of New York be annually distributed to the Delegates to this House of Delegates; and be it further

Resolved, That the Delegates of this House of Delegates receive a 1980 updated version of the Position Papers of the Medical Society of the State of New York within 60 days from the date that this resolution is adopted.

Fiscal Note: $560 per year.

PAST HOUSE ACTION: Resolution 76-78

■

⟹ *Report of the Reference Committee on Scientific Activities, Publications, and Miscellaneous:* The following report was presented by John L. Clowe, M.D., *Chairman.*

Your reference committee has considered this resolution and wishes to present the following substitute resolution:

Resolved, That an updated edition of the Position Papers of the Medical Society of the State of New York be annually distributed to the Members of this House of Delegates; and be it further

Resolved, That the Members of this House of Delegates receive a 1980 updated version of the Position Papers of the Medical Society of the State of New York within 60 days from the date of the adjournment of the House; and be it further

Resolved, That the updated edition of the Position Papers of the Medical Society of the State of New York be disseminated by incorporating it in the edition of the New York State Journal of Medicine which contains the proceedings of the House of Delegates.

Fiscal Note: $1,000 per year

PAST HOUSE ACTION: Resolution 76-78

⟹ . . . *The House, after considerable discussion,* **REFERRED** *the substitute resolution, the original resolution, and discussion in the House pertinent to this matter to the Council . . .*

Resolution 80-29, Dues for Student Members

Introduced by G. Rehmi Denton, M.D., and Ralph M. Schwartz, M.D., as Individuals

Whereas, The annual dues are determined by the House of Delegates under Article XV of the Bylaws of the Medical Society of the State of New York; and

Whereas, Student members are now exempt from the payment of dues; and

Whereas, The principal goal of the student membership is to help students become committed members of organized medicine after graduation; and

Whereas, Membership allows MSSNY access to students during the time when they are forming their attitude and habits regarding membership in medical organizations; and

Whereas, Payment of some nominal dues is essential to establishing commitment; therefore be it

Resolved, That the annual dues for student members be set at $3.

and

Resolution 80-40, Student Dues

Introduced by John T. Farrar, Delegate, Student Membership of the Medical Society of the State of New York

Whereas, The Student Membership is an active part of the Medical Society of the State of New York; and

Whereas, It is in the best interest of organized medicine in general to encourage student participation and involvement during medical school; and

Whereas, Many students do not have any prior knowledge of the purpose and activity of the MSSNY; and

Whereas, The invitation to membership with exemption from dues as a sign of the MSSNY's sincerity to educate students has encouraged membership; but

Whereas, It is important for the purpose of the MSSNY that its members show active support; therefore be it

Resolved, That the Medical Society of the State of New York exempt student members from paying dues during their first two years of membership; and be it further

Resolved, That beyond this time a dues of $5.00 per year shall be required from all student members, beginning with those students who join the MSSNY in the school year 1981-1982.

■

⟹ *Report of the Reference Committee on Scientific Activities, Publications, and Miscellaneous:* The following report was presented by John L. Clowe, M.D., *Chairman.*

After much discussion on this issue and hearing from the student members, as well as MSSNY staff and AMA representatives, your reference committee felt that the dues should be $3 annually.

It was brought to the attention of the reference committee that approximately 33% of all classes in medical schools in New York State have become members of the American Medical Association.

The Medical Society of the State of New York staff has informed us that a new recruitment program is being instituted in 1981 to promote medical student membership. It is hoped that with this new program we may emulate the success that has been accomplished by the American Medical Association.

Therefore, your reference committee combined consideration of Resolution 80-29 and Resolution 80-40 insofar as they dealt with the same subject: Student Dues. Since Resolution 80-29 best addresses the problem, your reference committee recommends that Resolution 80-29 be adopted in lieu of Resolution 80-40.

⟹ . . . *The House, after considerable discussion, voted to* **ADOPT** *Resolution 80-29 in lieu of Resolution 80-40 . . .*

⟹ . . . *The House voted to* **ACCEPT** *the report of the reference committee as acted upon by the House . . .*

PUBLIC HEALTH AND EDUCATION

ACCIDENT AND INJURY PREVENTION

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Accident and Injury Prevention are as follows:

John D. States, M.D., *Chairman*	Monroe
John O. Vieta, M.D., *Vice-Chairman*	New York
Harold Brandaleone, M.D.	New York
William R. Clark, Jr., M.D.	Onondaga
David R. Heller, M.D.	Putnam
Marshall Lepidus, M.D.	Suffolk
Bernard M. Zazula, M.D.	New York
* Robert Posnick	New York
Robert J. Huszar, M.D., *Advisor*	Albany

The Committee met on November 7, 1979, with representatives of the American Medical Association and the American Association for Automotive Medicine, Ms. Elaine Petrucelli and Mr. Lee Hames.

A program on Medical Driving Limitations was developed for the Spring CME Assembly and presented on April 26, 1980. Support for the travel expenses of out-of-state guest speakers was provided through resources available to Mr. Lee Hames. The purpose of the program was to aid physicians in determining when a patient should have his driving privileges limited because of medical driving disabilities. Background information was provided on Medical Advisory Boards for the New York State Motor Vehicle Department and on physician reporting in New York State and other states. Among the speakers were nationally known authorities on the medical and legal aspects of medical driving limitations. The size of the audience was excellent at the beginning of the meeting but Saturday afternoon in the Spring caused serious attrition by the end of the program.

Joint efforts of the Committee with the New York State Department of Motor Vehicles to write legislation reestablishing a Medical Advisory Board for the Department of Motor Vehicles and developing guidelines for physicians concerning medical driver limitations are continuing. The DMV is in serious need of expert, authoritative medical opinions concerning drivers with medical driving disabilities. Current medical guidelines lack proof of effectiveness and are being successfully challenged in court. The reestablishment of a Medical Advisory Board and expansion of the research programs of the DMV remain urgent necessities.

The DMV is now willing to drop mandatory physician reporting and is in hopes that a bill can be developed which will be supported by MSSNY. Efforts of the Committee and the DMV are expected to be resumed in the Fall of 1980.

The New York State Mandatory Motorcycle Helmet Law remains intact. The Chairman of the N.Y.S. Senate and Assembly Transport Committees agreed not to act on any bills which might weaken the helmet law.

Child restraint legislation has gained political momentum but at the time of this writing (5/7/80) had not been enacted. The cost of child seats may be an excessive financial burden for some New York State motorists creating opposition for the bill.

A 1979 publication by the N.Y.S. Department of Motor Vehicles, "*Cardiovascular Disease and Motor Vehicle Accidents*," was reviewed by the Committee. The report revealed that "loss of consciousness" was determined as being a "contributing factor" by the reporting police officer in about 900 of the 202,000 motor vehicle accidents that occurred in 1976. Analysis of the records in this group showed that 8 percent of the drivers who lost consciousness had a history of "cardiovascular disease," 13 percent had other known "chronic or nonchronic illness," and 79 percent had "illness," "dizziness," "seizures," and "loss of consciousness" of unknown cause. Twenty-five of the accidents in this group resulted in driver fatality.

The Chairman met with the staff of Assemblyman James Flanagan concerning his bill which would require insurance premium reductions for air bag equipped cars. As a result of the meeting and subsequent information provided to Assemblyman Flanagan's staff, the bill was amended to include cars equipped with automatic safety belt systems. The bill was not enacted but the need for the bill will be more apparent in 1981. All full size 1982 model cars will be equipped with air bags or automatic belt systems. It is expected that a majority of models will have automatic safety belts because of their lower costs.

The Committee collaborated with the State Traffic Safety Council and the Governor's Safety Committee in its annual safety seminars. This year's program was on occupant systems and was presented at twelve different locations throughout the State. Speakers were selected from among New York State physicians, several of whom were committee members.

The Committee is profoundly grateful to the MSSNY staff for their tireless and efficient support. Dr. George J. Lawrence, Jr., and Mrs. Elizabeth Daepp are especially thanked for their thoughtful and patient efforts on behalf of the Committee.

Respectfully submitted,
John D. States, M.D., *Chairman*

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

Your reference committee would like to emphasize the need for continued opposition by the Medical Society of the State of New York to any legislation to repeal the Motorcycle Helmet Law.

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* Medical Student

Your reference committee commends John D. States, M.D., for his successful efforts in presenting the opinions of the Medical Society of the State of New York to the Legislature and the New York State Department of Motor Vehicles.

⟹Your reference committee recommends that the report of the Committee on Accident and Injury Prevention be filed for information.

⟹. . . *The report of the Committee on Accident and Injury Prevention was* **FILED FOR INFORMATION** . . .

AGING AND NURSING HOMES

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Aging and Nursing Homes are as follows:

Robert J. Collins, M.D., *Chairman*	Onondaga
Ernest T. Anderson, M.D.	Monroe
Albert F. R. Andresen, Jr., M.D.	Westchester
Robert A. Baumler, M.D.	Erie
Eli A. Leven, M.D.	Monroe
Edward J. Lorenze, III, M.D.	New York
Stuart J. Miller, M.D.	Chemung
James A. Moore, M.D.	Albany
Jack R. Muth, M.D.	Suffolk
Leon M. Rothman, M.D.	Kings
Paul W. Sum, M.D.	Cattaraugus
Garrett W. Vink, M.D.	Putnam
* James J. Turro	New York
George M. Warner, M.D., *Advisor*	Albany

The Committee met on November 2, 1979, April 11, 1980, and June 11, 1980.

Since the last annual report, the Committee:

— continued its concern about the mentally impaired elderly in Residential Health Care Facilities as discussed at the Saratoga Conference in June, 1979. The Committee will study the plans being developed by the New York State Department of Mental Hygiene and the Federal Government for the solution of this problem;

— participated in a discussion with a representative of the Kings County Professional Standards Review Organization in regard to the role of the P.S.R.O. in Residential Health Care Facilities;

— reviewed the agreement reached by the Courts and the State Health Department about the role of the Utilization Review and the transfer process;

— continued observation of the new conditions of participation for Medicare and Medicaid which are scheduled for implementation in 1980;

— noted the endorsement by the Governor in his State of the Health message of a Single Code for Residential Health Care Facilities in New York State. This would replace the Dual Codes now in effect;

— participated with the Long Term Care Development Group of the Office of Health Systems Management in the design of changes for surveys of Residential Health Care Facilities. The goal is to prepare objective tools to evaluate patient care. This program centers on Sentinel Health Events (S.H.E.);

— examined the new JCAH Standards for Long Term Care Facilities;

— after deliberation, recommended that the training of nurse aides would be best done by rules and regulations of the New York State Departments of Health and Education rather than by legislative statute as proposed in Senate Bill 8589;

— emphasized its endorsement of free choice of physicians in R.H.C.F.;

— applauded the O.H.S.M. action in adjusting physician reimbursement for ambulatory medical care;

— welcomed James J. Turro, medical student at Cornell, as a member of the Committee;

— noted the growth in membership of the New York State Medical Directors Association;

— considered the problem of facilities having unacceptable surveys and the possible role of physicians in peer review in these facilities. Recommendations are now being developed by the State Health Department and will be reviewed by this Committee.

The Chairman expresses his appreciation to the Committee members for their time and effort.

The Committee is grateful for the assistance of Dr. George J. Lawrence, Jr., Dr. George M. Warner, and Mrs. Elizabeth H. Daepp.

Respectfully submitted,

Robert J. Collins, M.D., *Chairman*

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

⟹Your reference committee recommends that the report of the Committee on Aging and Nursing Homes be filed for information.

⟹. . . *The report of the Committee on Aging and Nursing Homes was* **FILED FOR INFORMATION** . . .

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* Medical Student

ALCOHOLISM

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Alcoholism are as follows:

Stanley E. Gitlow, M.D., *Chairman*	New York
Sheila B. Blume, M.D.	Albany
Pasquale A. Carone, M.D.	Suffolk
Luther A. Cloud, M.D.	New York
Sidney S. Greenberg, M.D.	New York
Edward Hanin, M.D.	Westchester
William L. Holt, Jr., M.D.	Albany
Brian R. Nagy, M.D.	Chemung
Hans J. Nieporent, M.D.	Kings
Sheldon Zimberg, M.D.	New York
* Debbie Esernio	Monroe
Mr. William Leavy, *Advisor*	Albany

The Committee on Alcoholism met repeatedly through the fall, winter, and spring of 1979–80. Through the efforts of Drs. Carone and Nagy, the symposium on "*Medical Discipline*" presented to MSSNY in the Fall of 1978 was published in the *New York State Journal of Medicine* (June, 1979). Apparently, this symposium has been of broad interest since numerous reprint requests were received from all over the world. Dr. Carone was willing to repeat this effort in connection with a symposium entitled "*Does Life Style Cause Cancer?*" This symposium covered such diverse topics as tobacco, alcohol, sex, food, and environment. The issues were addressed by Drs. Ernst Wynder, Andrew Keller, John King, J. Lawrence Werther, David Axelrod, and Henry Brill. The meeting in September of 1979 was exceptionally well attended, and the symposium shall be published in the New York State Journal of Medicine in the summer of 1980.

The Committee opposed Bill A-5919, which required a listing of over-the-counter drugs possessing adverse effects in combination with alcohol. The Council was in agreement. On the other hand, it was believed to be advantageous for pharmacists to utilize a general warning label concerning the potential detrimental effect of any drug prescription which might interact with alcohol. The voluntary observation of such an effort is, and will continue to be, investigated.

Despite the fact that efforts designed to acquire adequate medical insurance for our membership for such problems as mental health and addictive disorders were initiated many years ago, and despite the fact that the House of Delegates of MSSNY saw fit to accept our recommendation for such Statewide health insurance should any county society fail to offer such coverage, we have still not achieved this salutary state. Last year, the Council saw fit to resurvey the health insurance programs offered by the county societies.

The Department of Motor Vehicles concluded that the question concerning previous treatment for alcoholism was indeed counterproductive when included upon motor vehicle operators' application forms. After many years of urging by the Committee on Alcoholism, this question was abandoned. The Department offered their Draft Bill 68, which would mandate reporting by physicians of any applicant's mental or physical impairment to the Department of Motor Vehicles. The Committee on Alcoholism felt this to be unwise, and the Council concurred.

Numerous discussions were held concerning alternate measures of reducing the problems emanating from alcohol use while driving. Drs. Blume and Nagy gathered information concerning assessment techniques for alcoholism. Dr. Blume became co-chairperson of the Task Force on Alcohol and Highway Safety and our Committee offered our participation and assistance to that group. The Committee is now evaluating the ruling by which a driver requires a physician's letter of certification from an alcoholism treatment facility in order to be relicensed following a DWI.

The AMA reiterated their desire to achieve dual classification for alcoholism in the International Classification of Diseases (ICD). Correspondence with representatives with the World Health Organization (WHO) has indicated that a considerable effort designed to communicate the reason for this circumstance will still be required. The AMA Panel on Alcoholism is actively involved in this aim — originally proposed by this Committee and the delegates of MSSNY. Dr. Blume is a member of the international committee evaluating such issues of nomenclature.

The State program on Fetal Alcohol Syndrome (FAS) has proceeded with vigor. A coordinator, Shirley Burris, R.N., has been appointed, and the Committee on Alcoholism will cooperate to the extent of formulating an educational program on the subject of FAS, to be presented at the next annual CME Assembly of the MSSNY.

Finally, the Committee on Alcoholism has decided to undertake an evaluation indepth of the problems which impaired physicians have had in resuming their professional activities and reobtaining hospital appointments. Legislation will soon be introduced which is designed to enable the Physicians Committee to be reactivated. It has become apparent that the credibility of such rehabilitative efforts is supported in part by the availability of detailed plans whereby recovery of health can be followed by recovery of professional involvement.

Respectfully submitted,

Stanley E. Gitlow, M.D., *Chairman*

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⟹*Report of the Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

⟹Your reference committee recommends that the report of the Committee on Alcoholism be filed for information.

⟹. . . *The report of the Committee on Alcoholism was* **FILED FOR INFORMATION** . . .

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* Medical Student

CANCER

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Cancer are as follows:

Charles E. Rogers, M.D., *Chairman*	Nassau
I. Joseph Aprile, M.D.	Queens
Daniel Burdick, M.D.	Onondaga
John A. Finkbeiner, M.D.	New York
Thomas P. Hamilton, Jr., M.D.	Jefferson
Richard H. Lange, M.D.	Schenectady
Daniel G. Miller, M.D.	New York
David L. Rosen, M.D.	Westchester
Charles D. Sherman, Jr., M.D.	Monroe
Naveed Siddiqi, M.D.	Chemung
William P. Simmonds, M.D.	Warren
Arthur A. Stein, M.D.	Albany
Herbert Volk, M.D.	The Bronx
* Charles Morrow	New York
Dwight Janerich, D.D.S., *Advisor*	Albany

This report marks the tenth anniversary of my reporting to this Commission and the eleventh report I have been privileged to present.

Reflecting on the prior ten years led to reading the reports of prior years. Later in this presentation, I shall summarize some of the accomplishments as well as the frustrations of these activities.

You may recall, that last year I reported to you on the activities and recommendations of the Committee on Cancer during the prior year but felt obliged to inform you that the Council had either disapproved the recommendations, accepted them for information, or referred them to another committee. Subsequent to my presentation, it was indicated that if the Committee felt strongly about any of the recommendations, that it should reconsider them and present them again to the Council.

At our last meeting, we did precisely that and the results of our deliberations follow:

1979 Recommendation

— The State Health Department consider the designation of study groups to investigate the efficacy of heroin and marijuana as adjuncts in the treatment of cancer patients.

Council

Disapproved. Felt that studies were underway.

Health Department

Consideration in State Legislature for drafting bill to allow medical use of marijuana.

Current Committee Recommendation

No further action at this time.

1979 Recommendation:

— That the Medical Society of the State of New York support a Cancer Remedies Act to diminish cancer quackery activities in New York.

Council

Disapproved. The Council felt that there existed legislation to control quackery.

Committee Discussion

Several members of the Committee, who are also Council members, felt that the Legislative Committee was overwhelmed and busily engaged in other more pressing and vital legislation. To engage in the effort of the Cancer Remedies Act, would dilute and take away from other legislative efforts. However, there was not agreement that adequate legislation existed to control quackery and certainly, no evidence that existing statutes were being used to enforce and punish quacks.

Committee Conclusion

To approach the enactment of more stringent anti-quackery legislation through other means.

1979 Recommendation:

— That the Medical Society of the State of New York recommend a change in the State Health Code requiring occult blood testing on all hospitalized patients over twenty-one years of age; that rectal examination and documentation of such be included as a portion of the physical examination on hospitalized patients unless contraindicated or refused.

Council

Disapproved.

Committee Discussion

A Council member advised that the Council feels you cannot legislate good medical practice. This is not a true statement, since legislation has resulted in many good practices and highly desirable results. Requiring smallpox, polio, and other immunizations have all but wiped out many infectious diseases. Newborn treatment for ophthalmia and screening for blood dyscrasias have been legislated with good results. The plethora of laws and regulatory acts intruding into the practice of medicine has made the medical profession gun-shy. It is however a *non sequitur* to conclude that because some laws and regulations are odious and burdensome, that *all* regulations are so.

Committee Conclusion

To prepare bulletins and reminders to physicians on occult blood testing and rectal examinations, referring to the National Cancer Institute consensus paper in one of the bulletins and submit these for publication in the *New York Journal of Medicine.*

1979 Recommendation:

— That the Medical Society of the State of New York and its Legislative Committee use their position and power to effect an amendment of the Delaney Amendment concerning the restriction of carcinogenic substances as foods or food additives to be only on a *dose related* basis.

Council

Referred back to Committee with recommendation that the Committee consult with the American Society of Preventive Oncology.

Committee Action

The Chairman has contacted some members of the Society and will make further efforts in that direction.

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* Medical Student

The Committee felt no other action by the Medical Society of the State of New York was needed at this time as there seemed to be some liberalization of this interpretation of the amendment recently.

1979 Recommendation:

— That the State Health Department review the cost effectiveness of the DES Statewide Screening Program.

Council

Referred to the Committee on Maternal and Child Health for consideration.

Committee Discussion

As of this writing, the Committee on Maternal and Child Health has not responded to the referral and perhaps it might do so during this meeting.

Dr. Janerich responded to the recommendation last year and he will update us on the matter this year.

The Committee felt that the profession and public should be made aware that while DES may have undesirable and possibly dangerous side effects on both mother and fetus when used during pregnancy, that there were other conditions for which DES was indicated and useful in treatment. It was recommended that a letter be prepared for the joint signatures of the President of the Medical Society of the State of New York and the Commissioner of Health outlining the foregoing. Dr. Janerich is preparing a draft.

1979 Recommendation

Among a series of recommendations concerning anti-smoking efforts were that a joint task force be set up, composed of representatives of the Medical Society of the State of New York, the Hospital Association of New York State, the New York State Department of Health, and voluntary health agencies, to assist in promoting anti-smoking programs in hospitals and that the State of New York reestablish and fund the New York State Interagency Council on Smoking and Health as a means of implementing the foregoing recommendation as well as other anti-smoking programs.

Council

Received for information.

Committee Discussion

That this topic be presented and discussed by this Commission.

The Committee felt that further efforts concerning curbing of smoking in hospitals were desirable and needed further attention.

At the most recent meeting of the Committee, Dr. Janerich sought approval of a New York State Department of Health study on breast self-examination. The Committee unanimously approved the endorsement of the study and the Commissioner of Health has been so advised by Dr. Fineberg. Dr. Janerich will summarize the details of the project for the Commission.

Last year, the Council endorsed a project by an investigator at Columbia University concerning the impact of self-help groups on patients who have had mastectomies, various ostomies, and laryngectomies. The project is scheduled for completion in late 1980. The following are some of the project's preliminary observations. These are based on the first 100 interviews with 25 percent of the patients having conventional radical mastectomies and 75 percent lesser mastectomy surgery.

One year postoperatively, sixty percent had some residual physical discomfort and twenty percent some limitation of arm motion. Forty percent reported some difficulty in performing their usual activities, ten percent did not return to work after surgery, and twenty-five percent of those that did return to work reported finding their work more difficult. Twenty-five percent of those on chemotherapy reported much more difficulty in recovery.

Social relationship effects reported were: eighteen percent reported some problem with their marriage due to surgery. Forty-five percent reported marriage was strengthened. Ten percent did not resume sexual activity because of the mastectomy. Fourteen percent claimed their sex life was not as good as before surgery. Twenty-five percent reported a more limited social life.

Emotional effects elicited were: Twelve percent had considered suicide. Sixty-six percent claimed to have not had the emotional support they needed or wanted.

The impact of the self-help groups has not been completely analyzed. After receiving the results, I wrote the investigator, posed some additional questions, and offered suggestions as to what other information might be derived from the data base.

The Committee discussed the Laetrile problem and felt that, in view of the memorandum by Legislative Counsel in March of 1980, that no further Committee action was necessary at this time.

Some of the Committee's past recommendations which have found favor and been implemented, principally with the assistance and support of the State Health Department are:

— Mandatory Pap smears on hospitalized patients;

— Mandatory breast examination and chart documentation on hospitalized patients;

— Breast self-examination program implementation;

— Supported the Committee on Home Health Care and Hospice in its successful efforts to advance home care for cancer patients and reimbursement for it. Senator Lombardi provided tremendous assistance;

— Cooperated with the American College of Surgeons and the American Cancer Society on a number of projects, e.g., Uterine Task Force;

— Monitored legislation in neighboring states and recommended active opposition when such similar laws were proposed in New York State;

— Sought and obtained repeal of the Public Health Law exempting New York City from reporting its cancer statistics.

Among the Committee's frustrations have been:

— Failure to see adequate health education measures implemented to begin health and cancer prevention education in the early grades and continue it through the 12th grade—

— Failure to find support for legislative action concerning a Cancer Remedies Act—

— Failure to see occult blood testing and rectal examinations pushed forward as the only cost effective means we now have for making inroads against the 50% death rate due to colorectal cancer—

Despite the latter, it has been a great ten years with more pluses than minuses and if permitted to do so, my Committee and I intend to keep pushing for a lot more of those pluses.

Respectfully submitted,

Charles E. Rogers, M.D., *Chairman*

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

⟹Your reference committee recommends that the report of the Committee on Cancer be filed for information.

⟹. . . *The report of the Committee on Cancer was* **FILED FOR INFORMATION** . . .

CARDIOVASCULAR DISEASE

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Cardiovascular Disease are as follows:

Charles A. Bertrand, M.D., *Chairman*	Westchester
William J. Breen, M.D.	Erie
Joseph T. Doyle, M.D.	Albany
Abraham Jezer, M.D.	The Bronx
Russell Knope, M.D.	Chemung
Jerome A. Schack, M.D.	New York
Joseph Schluger, M.D.	Kings
* Lawrence H. Durban	New York
Richard Rothenberg, M.D., *Advisor*	Albany

The first item of discussion was the Good Samaritan Bill for physicians in a hospital setting. This bill is sponsored by Senator Pisani and cosponsored by many members of legislature. However, the bill has not come out of committee as of this writing. As of this time it is up for a third reading in the Senate committee and the leadership seems to have some problems with it. This bill is long overdue, and could rectify the incredible omission of physicians in the Good Samaritan Bill that was passed two years ago.

Many citizens have been trained in CPR over the past several years. It's ironic that many are reluctant to perform this technique for fear of liability in the event of poor outcome. Many individuals have said that they would perform CPR "*just for loved ones.*" A Good Samaritan Bill for citizens performing CPR in good faith is needed in the State of New York. Approximately 20 states already have such a bill in effect.

Energy problems occurred both in 1973 and 1979, and a lively discussion evolved about gasoline for physicians having M.D. plates and the M.D. plate alone representing designation as an emergency vehicle. The pros and cons were debated. After the chairman testified before the energy commission in Albany one of the lines of questioning was the designation of certain fields of medicine for special consideration. The opinion of the committee was that cardiologists should be allowed gasoline (their cars receiving the required designation) as well as other physicians who are in the active practice of medicine. Obviously the dialogue will proceed further at the State level and there are many aspects to be explored further.

The discussion then turned to the role of this Committee, in view of the fact that there are three distinct heart associations in New York State. In the past this Committee has served on a referral basis from the Council with regard to specific issues. For example, it has served in an advisory capacity with regard to such problems as the Heart (Pension) Bill for Police and Firemen, approval of heart surgical problems in hospitals and other such problems in the past. We can speak with a clear and objective voice and not represent any single heart association, but may give our assessment on various cardiovascular problems for MSSNY. In line with giving opinions on various subjects the question of CPR training for high school students was raised by one of our members. The Committee believes that the three heart associations as well as the State Education Department should encourage consideration of training for high school students as part of the school curriculum.

Respectfully submitted,

Charles A. Bertrand, M.D., *Chairman*

◆

⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

⟹Your reference committee recommends that the report of the Committee on Cardiovascular Disease be filed for information.

⟹. . . *The report of the Committee on Cardiovascular Disease was* **FILED FOR INFORMATION** . . .

CHILD ABUSE

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Child Abuse are as follows:

Marvin L. Blumberg, M.D., *Chairman*	Queens
Eliza H. Caldwell, M.D.	Westchester
Dominick J. DiMaio, M.D.	Kings
Joseph A. DiPietro, M.D.	Westchester
Vincent J. Fontana, M.D.	New York
Donald Lynn, M.D.	Chemung
Aaron R. Rausen, M.D.	New York
Lester Schiff, M.D.	Niagara
Doris L. Wethers, M.D.	New York
* Ricki Friedman	New York
Andrew C. Fleck, Jr., M.D., *Advisor*	Albany

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* Medical Student

* Medical Student

The Committee on Child Abuse has been continuing its activities to increase awareness and early recognition of child abuse and neglect by disciplines involved in the various aspects of child care and by the lay community. The emphasis has been on reporting of cases and subsequent multidisciplinary action to prevent recurrent and more serious maltreatment of child victims. With the approval of the MSSNY Council, the Committee has contacted the Dental Society of the State of New York recommending publicity on the subject to the dental profession. An article entitled "*The Dentist's Involvement with Child Abuse,*" co-authored by the Committee chairman and a qualified pedodontist, will appear shortly in the *New York State Dental Journal*. More articles and a number of lectures by dentists at large dental meetings have been presented during the past year on the subject of child abuse and its appearance in the dentist's office as orofacial injuries. As primary providers of health care to children, dentists can play an important role in the early recognition and management of abuse. To further its educational endeavors, the Committee has requested the dentist co-author of the above mentioned article to attend its meetings in an advisory capacity. A fourth-year medical student has also been appointed to the Committee.

Following its achievement of having Child Maltreatment Syndrome coded along with subheadings in the latest edition of the International Classification of Diseases, the Committee recommended to the Council of MSSNY that all hospital medical records departments be apprised of this fact and be instructed to enter this diagnosis, when it is appropriate, on hospital chart discharge summaries. The Council approved of this recommendation and instructed the Ad Rem bulletin editor to notify all hospitals accordingly. This was accomplished on November 28, 1979.

In addition to the activities of the Committee as a whole, individual members are involved in specific aspects of child abuse and coordinate their efforts and results with the Committee. Dr. Vincent J. Fontana is Chairman of the New York City Mayor's Task Force on Child Abuse and Neglect that collects data, stresses rules and law enforcement, and works with State legislators on pertinent matters. Dr. Donald M. Lynn is investigating the psychiatric aspects related to cause and effect of child maltreatment and will seek cooperation and involvement of psychiatric institutions. Dr. Dominick J. DiMaio is proceeding with a study of sexual abuse of children concerning statistics of occurrence and results. Several members of the Committee, including the chairman, have been lecturing at medical, other professional, and lay meetings on the subject of child abuse and neglect.

In view of the endemic, if not epidemic, occurrence of child abuse and neglect, the Committee considers it appropriate and advisable to include educational material on the subject in the student curriculum in medical and dental schools. Methods of presentation are being considered that will be proposed to the deans and faculty, with the possibility of a speakers bureau being organized to be available to the schools. This whole concept will be further developed and carefully planned before any approaches are undertaken.

There is an appreciable tendency for parents of children with prenatal or birth defects to neglect or abuse these children emotionally, if not physically. The Committee will, therefore, consider the feasibility of emphasizing this fact to facilities and agencies throughout the State that treat and care for these children, and of encouraging their personnel to observe carefully parents' reactions to their children and to evaluations by personnel. Social workers should be involved in counseling or referring for help to appropriate agencies parents who appear to be distressed or to have negative or disinterested attitudes concerning their disabled youngsters. Lists of agencies can be obtained from various state associations.

Respectfully submitted,
Marvin L. Blumberg, M.D., *Chairman*

◆

⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

⟹Your reference committee recommends that the report of the Committee on Child Abuse be filed for information.

⟹. . . *The report of the Committee on Child Abuse was* **FILED FOR INFORMATION** . . .

DRUG ABUSE

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Drug Abuse are as follows:

Leonard L. Heimoff, M.D., *Chairman*	The Bronx
Richard S. Blum, M.D.	Nassau
Ronald J. Dougherty, M.D.	Onondaga
Douglas C. Evans, M.D.	Monroe
Sidney S. Greenberg, M.D.	New York
Sanford A. Kaplan, M.D.	Westchester
Philip Kaufman, M.D.	Queens
Allison B. Landolt, M.D.	Westchester
Stephen Nordlicht, M.D.	New York
* James Mark Cech	Monroe
Mr. William Leavy, *Advisor*	Albany

Two items have occupied the time and interests of the Drug Abuse Committee during 1979–1980.

The first of these is the problem of controlling the misuse of prescriptions for controlled substances. The Division of Food and Drug Protection of the New York State Department of Health drafted a bill with several proposals for a new drug abuse initiative. The draft was studied by the Committee and disapproved because of a lack of statistical information and insufficient knowledge of the experience of other states in handling this matter. A meeting was then held between representatives of MSSNY and the State Health Department to discuss possible areas for cooperative attempts at solutions to the problem. The following is a summary of the dialogue which ensued and is included in this report for informational purposes only:

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* Medical Student

1. Amphetamines. These are stated to be among the most widely abused drugs. In 1979 the MSSNY House of Delegates adopted the recommendation that amphetamines be limited to use in hyperactive children and narcolepsy. The Health Department is in general agreement with this policy, but it was pointed out that the use of amphetamines in cancer patients with intractable pain seems to potentiate the effect of narcotics. Discussion then revolved about the three possible legislative proposals:

a. Prohibition of prescriptions for amphetamines except for hyperkinesia and narcolepsy.
b. A bill simply prohibiting the use of amphetamines in treatment of obesity.
c. A requirement that the physician should indicate on the prescription the purpose for which the amphetamine is being prescribed.

The three above mentioned uses for amphetamines would be considered permissable.

2. Bill to require that physicians register in order to be able to use triplicate prescriptions. MSSNY representatives voiced objection to an additional registration for physicians. They pointed out that the abusers of the privilege to prescribe controlled substances are presently being exposed and that the present system allows for their privilege to be withheld.

It is very likely that the Department of Education will oppose such a bill. The representatives of the Health Department are not optimistic that it can pass, but pointed out that the present registration procedure could be used also for this additional purpose, thus not entailing any additional registration or fee, except for those found to be abusers.

3. Limit of 200 triplicate prescriptions to each physician annually. This proposal was also strongly opposed by the MSSNY representatives. They pointed out that physicians often have legitimate reasons for using large numbers of these prescriptions and that imposing this rule on them to control the handful of offenders would be unreasonable. The Health Department pointed out that in 1979 there were only 468 practitioners who wrote more than 200 prescriptions and that the average for all practitioners writing was 36 prescriptions per year. The MSSNY representatives proposed that no new rules and regulations be written at this time, but that the Health Department establish the following policy:

a. Triplicate prescriptions be sold only in batches of 100.
b. After an M.D. has purchased 300 and requests another 100, the Health Department will inform him that its policy is to request reasons why he needs more.
c. We felt that MSSNY could support this policy. (Only 174 practitioners wrote more than 400 prescriptions in 1979.)

4. The last proposal discussed was a proposed amendment to Part 80 — Rules and Regulations on Controlled Requirements for amobarbital, pentobarbital, and secobarbital. This would permit the Commissioner to rule that these drugs must be prescribed on the triplicate prescription form.

The MSSNY representatives again objected strongly to this proposal. The original intent of the law creating triplicate prescriptions was not to give this power to the Commissioner, but to require legislation to so include additional drugs. The Health Department representatives pointed to statistics which show that these drugs are the most frequently used by suicides, and this is sufficient reason to make them less easily available. We stated that we cannot support such an action by the Commissioner, and the Health Department is very much aware that we are opposed to it.

The second item on our Committee agenda has been the revision of the Physician's Desk Reference for Drug Abuse. Several members of the Committee have been working with the Division of Substance Abuse Services on this revision. It is hoped it will be ready for Committee review and approval this fall. If then approved by the MSSNY Council, it will probably be ready for distribution to physicians by the year's end.

Respectfully submitted,
Leonard L. Heimoff, M.D., *Chairman*

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

⟹Your reference committee recommends that the report of the Committee on Drug Abuse be filed for information.

⟹. . . *The report of the Committee on Drug Abuse was* **FILED FOR INFORMATION** . . .

EMERGENCY HEALTH SERVICES

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Emergency Health Services are as follows:

David N. Kluge, M.D., *Chairman*	Monroe
Charles N. Aswad, M.D.	Broome
James H. Cosgriff, Jr., M.D.	Erie
Julius P. Duic, M.D.	Westchester
Irving G. Frohman, M.D.	Queens
John Hermann, M.D.	Lewis
Norman Morris, M.D.	Kings
Walter F. Pizzi, M.D.	New York
Gerald W. Shaftan, M.D.	Kings
John E. Spoor, M.D.	Otsego
Sheldon Zuckerman, M.D.	Nassau
* Harry Stulbach	New York
Robert J. Huszar, M.D., *Advisor*	Albany

* Medical Student

The Committee reviews and advises our MSSNY Committee on Legislation concerning proposed legislation in the field of emergency medical care.

The Society was asked to define "emergency care" as it pertains to a proposal extending payment for such care to include the physician's office.

The following definition was submitted:

> "Emergency Medical Care" includes that care of acute conditions recognized for payment by insurance and third party payers as covered in Article 28 hospital emergency departments which can be reasonably treated in physicians' offices.

The Committee supports reusable container legislation to decrease broken glass injuries and nonremovable flip tops on cans to prevent similar injuries as the aspiration of these flip tops.

It also supports stricter enforcement of hand gun laws and mandatory sentencing in cases of illegal use and possession of guns.

The Committee hopes that the present motorcycle helmet law remains in force in New York State.

It favors stricter enforcement of seat belt usage and stricter enforcement of laws involving accidents while under the influence of alcohol.

Many needless injuries and deaths occur from the above. In addition health care costs could be decreased with modification of these types of behavior.

The New York State Emergency Medical Services Council now has three members of this Committee on its roster. Dr. Norman Morris is Chairman of the Hospital and Medical Procedures Committee, Dr. John Spoor is Chairman of the Training Committee, and Dr. David N. Kluge is Vice-Chairman of the Council. The Council meets monthly at the State Health Department in Albany to oversee and improve emergency medical care, especially pre-hospital care, under the Commissioner of Health.

The New York Telephone Company has requested help and endorsement of the MSSNY as it develops a section in its telephone directories devoted to medical emergencies. The Committee is helping to develop this public information.

The Emergency Medical Service System at the Winter Olympics went smoothly and few problems were encountered. An improved 911 communications installation will continue to serve both summer and winter visitors to this Adirondack area.

Under the direction of Dr. Julius Duic, the MSSNY Section on Emergency Medicine and the New York State Chapter of the American College of Emergency Physicians presented two provider courses in Basic Cardiac Life Support and an instructor trainer course in BCLS at the 1980 Spring CME Assembly of MSSNY.

The Committee urged that all physicians who provide medical control in advanced cardiac life support be certified by the American Heart Association in advanced life support.

The Committee wishes to thank George J. Lawrence, Jr., M.D., of the Medical Society, Robert Huszar, M.D., Advisor, from the State Health Department, and Mrs. Elizabeth Daepp, for their very helpful counsel and assistance.

Respectfully submitted,

David N. Kluge, M.D., *Chairman*

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman*.

⟹Your reference committee recommends that the report of the Committee on Emergency Health Services be filed for information.

⟹. . . *The report of the Committee on Emergency Health Services was* **FILED FOR INFORMATION** . . .

ENVIRONMENTAL QUALITY

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Environmental Quality are as follows:

Ronald Stritzler, M.D., *Chairman*	Nassau
Ephraim J. Felderman, M.D.	Nassau
Louis A. Sasso, M.D.	Richmond
Donald K. Stockdale, M.D.	Monroe
Donald B. Thomas, M.D.	Erie
* Julia F. Schlam	New York
Nicholas Vianna, M.D., *Advisor*	Albany

Some Aspects of Chemical Contamination of Drinking Water. Confronted by a daily barrage of environmental hazards such as toxic contamination from waste dumps, PCBs in fish, illness among Vietnam veterans from Agent Orange, children exposed to vinyl chloride, the saga of Love Canal, and endless more, we have chosen to focus mainly on one central topic: chemicals in the drinking water supply.

The water-borne bacteriologic epidemics of the nineteenth century have been largely resolved by chlorination and filtration. In the 1980s the main water problem is chemical contamination. We are still assessing the total scope of the problem and at the same time seeking its solution.

The source of pollutants is determined by local geological conditions and the type of industry and agriculture of a particular area. Sources include leakage from landfills, infiltration from road salts, storm water recharge containing land and street washings, sewer leakage, commercial discharges, fertilizers, and pesticides.

The problem of nitrate pollution of water is important throughout the State especially in agricultural areas but suburban regions are also affected. In Nassau County, 20 wells exceed the standard and 37 percent of the wells show increasing nitrate levels. Sources of nitrate are lawn and agricultural fertilizer, storm water recharge, cesspool and field sewage disposal systems. The nitrate standard of 10 mg./liter as nitrogen has been criticized by the National Academy of Science as an insufficient margin of safety.

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* Medical Student

Organic chemicals, including some suspected carcinogens, have been found in wells. The main sources are industrial and commercial operations for degreasing, dry cleaning, automotive service stations, metal finishing, pesticides and others. Organic chemicals are also found in consumer products: household cleaners, degreasers, disinfectants, paints, varnishes, and many more.

There is probably no completely safe level for organic contaminants (the risk increases with dose) unlike inorganic chemicals where maximum allowable concentrations have been established.

An ironic side note is that chlorine, a chemical solution to bacterial contamination, combines with hydrocarbons to form chloroform, which is a suspected carcinogen. Thus, the solution of one problem has created a new one.

The latest acute toxic water crisis involves contamination of wells in Suffolk County by a pesticide, its trade name is *Temik,* and chemically it is an aldicarb carbonate manufactured by Union Carbide.

Temik was commercially distributed to Suffolk County potato farmers to destroy the golden nematode and the Colorado potato beetle, pests threatening the potato industry.

Temik works by inhibiting acetyl cholinesterase. It is not carcinogenic, mutagenic, nor teratogenic. Symptoms of toxicity are nausea, vomiting, blurred vision, headache, temporary paralysis, perspiration, and dyspnea. The accepted level of Temik in water has been set at 7 parts per billion. Approval for utilization of Temik in New York State by the State EPA was given in 1975; the approved concentration was 5 lbs./acre. In 1977 the level of 5 lbs./acre was permitted only for Long Island in order to combat the severe problem of nematode and Colorado beetle infestation. An extra 2 lbs./acre applied at planting was approved in 1978 by the State. The Federal EPA countermanded the State's recommendation. In May, 1979, the State again approved the extra 2 lbs./acre. In August, 1979, the Federal EPA informed the Suffolk County Health Department of Temik contaminated wells around farms. County-wide well testing around potato farms is being carried out; samples are sent to Union Carbide for analysis.

We have a classic ecologic dilemma, industry introduces a new pesticide (Temik) to save the crop (potato), the water supply is contaminated, wells are closed, the pesticide banned. The crop is not saved and a new environmental hazard is created.

Now, there are many unanswered questions about the Temik problem: for example — How great is the danger? How valid is the accepted concentration level of Temik? How valid is the testing of water samples by the company that produced the pesticide? How significant is a single test analysis of a water sample? Where should those with contaminated wells get water? Who will pay for it? Were there safer alternatives to Temik? Was preliminary testing properly done? What happens to the potato crop? Where does responsibility lie? Whom do we hold accountable? How can similar situations be prevented?

The Committee has looked at some aspects of the water problem. We plan to next consider some solutions in the context of the Health Department's Statewide request for comments on the following issues:

> "What regulatory strategy should the Department of Health adopt to minimize potential health risks while taking into account technological and scientific limitations and public cost involved?
>
> "What is an acceptable level of involuntary risk for use in establishing drinking water standards? Should regulatory agencies concentrate their efforts on controlling organic chemicals at the point of discharge into the environment or at the point of water withdrawal?
>
> "Should the Health Department undertake research to evaluate different methods of treatment technology, or defer this effort to the Federal Government or the water industry? Should public bulletins be issued about the chemical contamination of specific water supplies, so individuals can decide whether to drink the water or not?
>
> "Should society as a whole pay for the additional cost of water treatment or should the cost be borne by the water operators and passed along to their customers?"

I would like to thank Dr. George J. Lawrence, Jr., and his competent staff for their invaluable help and encouragement.

Respectfully submitted,

Ronald Stritzler, M.D., *Chairman*

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

⟹Your reference committee recommends that the report of the Committee on Environmental Quality be filed for information.

⟹. . . *The report of the Committee on Environmental Quality was* **FILED FOR INFORMATION** . . .

HEALTH CARE IN CORRECTIONAL INSTITUTIONS

To the House of Delegates, Ladies and Gentlemen:

The Members of the Committee on Health Care in Correctional Institutions are as follows:

Russell C. Johnson, M.D., *Chairman*	Orange
Stephen Nordlicht, M.D.	New York
Robert D. Reinecke, M.D.	Albany
Elwood G. Weisenburn, M.D.	Greene
Allison B. Landolt, M.D., *Advisor*	Westchester
Mr. Arthur Webb, *Advisor*	Albany

The Jail Medical Technical Assistance Program (Jail Health Project) is a federally supported program funded with monies from the Law Enforcement Assistance Administration (LEAA) through a grant to the American Medical Association (AMA). The AMA has contracted with the Medical Society of the State of New York (MSSNY) to develop and administer the program in New York State. This is the fifth year for the program nationally and the first year in New York.

The goal of the Jail Health Project is to provide technical assistance to county jails to enable them to meet the AMA Standards for Health Services. The Standards, developed in a process which began in 1972 following a national survey showing jail health and medical services to be grossly inadequate, are nationally recognized and endorsed.

Subsequent to Council approval of the Jail Health Project, the following events have occurred. Lawrence G. Rose, M.Ed., became the State Project Coordinator on December 3, 1979. During December all New York State County sheriffs were notified of the program. Some twenty-five (25) relevant State agencies and organizations were also notified. A series of press releases have been sent out by the Communications Division.

The Committee on Health Care in Correctional Institutions, chaired by Russell C. Johnson, M.D., met on January 9, 1980. Mr. Rose advised the Committee as to the process that would be used in implementing the program. Criteria accepted by the Committee included that ten (10) jails would be selected being representative of size, geographic distribution, and the existing availability of health care resources within the jails. The Committee discussed the process by which recommendations for changes in the AMA Standards could be made.

During January applications were received, reviewed, and recommendations made to the Committee. The Committee selected the ten (10) jails that will comprise the initial pilot project for technical assistance. Those jails are Broome, Chenango, Dutchess, Erie, Monroe, Onondaga, St. Lawrence, Schenectady, Suffolk, and Tioga.

On April 7, 1980, the Committee held its third meeting. Representatives from the Sheriffs' Association, Nurses' Association, Association of Counties, Dental Society, Commission of Correction Medical Review Board, Department of Prisons and Correctional Services, and civilian advocate are or will be advisors to the Committee. Mr. Rose advised the Committee as to the process of data collection and use of on-site survey instruments. The Commission of Correction will be sent a summary of the self-survey, site visits, and survey team evaluations along with recommendations for any needed changes (State Action Plan).

The ten (10) project jails and their respective county medical societies have been notified by letter. In addition, those jails applying but not selected and their respective county medical societies have also been notified by letter. Jails that were not selected and all subsequent applicants will receive a minimal amount of consultation time and copies of various literature prepared by MSSNY and AMA. The ten (10) project jails have completed a *Self-Survey Questionnaire* and received copies of the standards and relevant literature. Each jail has been visited at least once and Mr. Rose has had direct contact with most of the county medical societies. The jails' correctional and health care staffs will be involved in Statewide and local workshops and consultation sessions aimed at helping the jails meet the AMA standards. County medical societies as well as other local agencies/organizations are being asked to be supportive and involved in the project. Survey teams, including one or more medical doctors, will make the final site visit to each jail when a jail appears to be in compliance with the 23 essential standards and at least 70 percent of the remaining 46 standards.

SUMMARY OF INITIAL IMPRESSION OF JAILS

Review of responses to the *Self-Survey Questionnaire* and impressions made by Mr. Rose after his initial visit to each jail have shown the following:

A. All project jails have a medical doctor.

B. Some project jails have additional health care staff, ranging from family practice residents to PAs, RNs, staff pharmacists, dentists, psychiatrists, and psychologists, to correction officers with minimal health care training.

C. Most jails, while using established procedures, do not have written policy and procedure manuals.

D. Most jails do not obtain sufficient or appropriate medical information during their booking process.

E. Many jails are relying heavily upon correctional officers, who have little or no health care training beyond first aid, to take health histories, pour and distribute medications, and make determinations as to whether a complaint is a medical emergency.

F. All project jails have a positive attitude toward the development and operation of a quality health care system in their facility. The general response in New York State towards the Jail Health Project has also been very positive. There are some nine jails currently on a waiting list and others have indicated an interest but are waiting to see what happens in the initial project.

G. Many jails appear to be holding people in detention who are felt to be inappropriate because of mental illness and/or mental retardation. Sheriffs, administrators, and health care staff reported that frequently people in need of mental health, alcohol, and/or drug services are arrested on minor charges and brought into jail just to get them off the streets. Many jails related that this problem demands more time and causes more frustration than many other health care problems. It appears that with deinstitutionalization the community and local police tend to look to the county jail as the secure treatment facility. A second mental health issue is the problem of transferring a detainee to a secure psychiatric facility (Forensic Psychiatric Unit) for observation and treatment when he or she develops symptoms of mental illness after incarceration.

H. There appear to be several other health care issues peculiar to jail populations — i.e., high incidence of active T.B., stress related to initial incarceration and release back to the community, high levels of tobacco and coffee use, use of prescribed medications at a higher level than the general community. Also, certain chronic conditions which may not present treatment or functional problems in the community do present problems in the close environment of a jail. These medical problems require solutions designed specifically for a jail population.

Generally, the county medical societies have been interested in the project. Some county societies are exploring ways in which they can become actively involved. This includes the use of a liaison to the county jail and society sponsored jail health care committees.

ACCREDITATION

This program is designed to provide technical assistance to the jails with the final major interaction by MSSNY being the on-site visit of the Survey Team as described elsewhere in this report. However, a jail, and most are saying they will, may, in addition, apply to be accredited. Accreditation for a jail's Medical/Health Care component is granted by the AMA for a period of two (2) years or one (1) year provisionally. The AMA Advisory Group on Accreditation makes its decision based on the responses to the on-site survey instruments and other data. Monitoring and ongoing technical assistance will be the responsibility of MSSNY.

As part of the process of involving other State agencies and organizations, Mr. Rose and Dr. Johnson met with Commissioner Joseph Wasser, State Commission of Correction, and Chairman of the Commission's Medical Review Board, to discuss the AMA standards and how they interface with the Commission's standards. Possibility of the Commission adopting the AMA standards was discussed.

Mr. Rose has also met with Sister Marie Celeste Allen, Director, Nursing Practices and Services Program, New York State Nurses Association (NYSNA). They discussed the AMA standards and Mr. Rose's input was sought regarding standards of nursing practice in correctional facilities that NYSNA is developing.

Mr. Rose presented the award winning AMA film, "*Out of Sight, Out of Mind*" at the Winter Conference of the New York State Sheriffs' Association. He has also met with or discussed the program with the Association of Counties, State Bar Association Committee on Correctional Systems, Coalition for Criminal Justice, Legislative Commission on Expenditure Review, Division of Criminal Justice Services, and the Medical Review Board of the Commission of Correction.

It is expected that the self-survey process and initial site visits will be completed and individual action plans developed in mid-June. The State Action Plan will be completed by the end of June, 1980. Based on the State Action Plan a program of technical assistance will be implemented to help the jails develop their own programs to meet the standards. Several State agencies, including Mental Health, Corrections, and Education, have indicated they will help with workshops.

The future operation of the program requires solutions to new problems. Recent federal budget reordering has forced LEAA and subsequently AMA to reduce its contribution by $10,000 while program costs have increased by 7%. At the present time, LEAA funds are expected to stop entirely by June, 1981.

Respectfully submitted,

Russell C. Johnson, M.D., *Chairman*

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

⟹Your reference committee recommends that the report of the Committee on Health Care in Correctional Institutions be filed for information.

⟹. . . *The report of the Committee on Health Care in Correctional Institutions was* **FILED FOR INFORMATION** . . .

HOME HEALTH CARE AND HOSPICE

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Home Health Care and Hospice are as follows:

Lawrence S. Kryle, M.D., *Chairman*	Nassau
Albert F. R. Andresen, Jr., M.D.	Westchester
Bruce E. Baker, M.D.	Genesee
Roger Boulay, M.D.	Monroe
Gerald D. Dorman, M.D.	Suffolk
Nicetas M. Kuo, M.D.	Queens
Sheldon Putterman, M.D.	Queens
Donald H. Schultz, M.D.	Ulster
Aftab Siddiqui, M.D.	The Bronx
Charles Sinatra, M.D.	Chautauqua
Jane C. Brady Wiles, M.D.	Erie
* Arleen Richards	Suffolk
Allison B. Landolt, M.D., *Advisor*	Westchester
Michael McGarvey, M.D., *Advisor*	Albany
George M. Warner, M.D., *Advisor*	Albany

The Committee noted with approval that the government plans to encourage hospice and home care and an endeavor is being made to make available funds from the Governor's budget to pay for this care. This definitely included physician's fees, which had previously been omitted from the budget.

The Committee unanimously recommended support of Bill No. 3431A (see Appendix "A") to provide feasibility study of established physician's home visits for the elderly and making appropriations thereto.

In addition, the Committee discussed Bill No. 7110A to amend the Public Health Law in relation to expansion of Home Care services. The bill was passed, but no appropriation has been made. It was noted that the major providers of home care outside the City of New York are the local County Health Departments. These departments are lacking in funds for payment of services, particularly for the indigent. Again, it was emphasized that these funds be increased and be included in the government's forthcoming budget.

The Committee also unanimously requested that the State Government extend funds and lift the cap ceiling for Hospice Programs. These programs should also have the support of Blue Cross and other carriers.

It was concluded that there is much support, verbally, for home health care and hospice care being rendered in an arena that would keep the patient out of the high health cost area such as hospitals and be treated in a minimum cost area. However, the government has been rather slow in coming up with the necessary funds to support even pilot studies in the State of New York. The studies that are now going on are supported with federal funds and private philanthropic contributions.

It is the Committee's earnest wish that the State government become more active in this field.

Respectfully submitted,

Lawrence S. Kryle, M.D., *Chairman*

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* Medical Student

APPENDIX "A"

STATE OF NEW YORK

3431—A

1979-1980 Regular Sessions

IN ASSEMBLY

February 21, 1979

Introduced by M. of A. BUTLER—Multi-Sponsored by—M. of A. BARBARO, BOYLAND, COOKE, D'ANDREA, DEARIE, ENGEL, EVE, FLACK, FLANAGAN, FORTUNE, HARENBERG, HOBLOCK, LIPSCHUTZ, MADISON, MONTANO, NAGLE, VIRGILIO, WILSON—read once and referred to the Committee on Aging—committee discharged, bill amended, ordered reprinted as amended and recommitted to said committee

AN ACT to provide for a feasibility study of establishing physician home visit services for the elderly and making an appropriation therefor

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. The commissioner of health in consultation with the commissioner of education and the director of the office for the aging shall undertake a study of the feasibility of providing physician home visit services for the elderly including the feasibility of physician residents performing such services and, not later than one year after the effective date of this act, shall submit a report of the study to the legislature, including recommendations for legislation if it is deemed appropriate. A copy of such report shall be furnished the New York state medical association.

§ 2. The sum of thirty-five thousand dollars ($35,000), or so much thereof as may be necessary, is hereby appropriated to the department of health out of any moneys in the state treasury in the general fund to the credit of the state purposes fund and not otherwise appropriated, to defray the expenses of the department, including personal services, operation and maintenance, in carrying out the provisions of this act. Such moneys shall be payable from the state treasury on the audit and warrant of the comptroller on vouchers certified or approved in the manner prescribed by law.

§ 3. This act shall take effect immediately.

EXPLANATION — Matter in *italics* is new; matter in brackets [ ] is old law to be omitted.

LBD9-36-1073A

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

⟹Your reference committee recommends that the report of the Committee on Home Health Care and Hospice be filed for information.

⟹. . . *The report of the Committee on Home Health Care and Hospice was* **FILED FOR INFORMATION** . . .

MATERNAL AND CHILD HEALTH

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Maternal and Child Health are as follows:

Roderick McLean, M.D., *Chairman*	Onondaga
Richard Harold Aubry, M.D.	Onondaga
Peter A. M. Auld, M.D.	New York
Louis S. Blancato, M.D.	New York
Solan Chao, M.D.	New York
Myron Gordon, M.D.	New York
Rita Gilman Harper, M.D.	Nassau
James J. Kropelin, M.D.	Niagara
Richard E. Murphy, M.D.	Clinton
Morton A. Schiffer, M.D.	Kings
Donald P. Swartz, M.D.	Albany
Walter Walls, III, M.D.	Erie
* Sharon Stotsky	Massachusetts
Andrew C. Fleck, Jr., M.D., *Advisor*	Albany

As Chairman of the Committee on Maternal and Child Health of the Medical Society of the State of New York, I submit the following report:

For many years the Maternal and Child Health Committee has been engaged in the research, analysis, and review of Maternal Mortality and Morbidity. However, since the grant support from the New York State Health Department was discontinued, our main efforts have been spent in developing a detailed proposal for a grant to continue our study not only of Maternal Mortality and Morbidity but also a Perinatal Mortality and Morbidity Study in the State of New York. A Subcommittee for this purpose was created and has been working diligently throughout the year to complete this grant proposal. The Subcommittee has prepared a draft of the proposed project, including a budget proposal. These were discussed by our entire Committee on June 10, 1980, and approved in principle. Your Chairman was authorized to consult with the Health Department for its advice and input, and to ascertain if there is any interest in supporting the proposed study.

The termination of our research has been the grave concern of members of the Committee as well as ACOG, AAP, AAFP, and other medical society maternal and perinatal study committees throughout the country. At no time in the history of medicine has it been more important to review and analyze the results of our medical care, when out-of-the-hospital births are on the increase and methods of care and health code changes are being instituted. Statistical recordings are not enough, accuracy of interpretation can only be accomplished by intensive review and analysis. It, therefore, seems only rational that information can only be obtained and correctly interpreted by a combined effort of the Health Department and the practicing physician. All of the specialty groups involved with maternity care have given their support of this project, and we now ask the Health Department to reinstate its support.

The Medical Society of the State of New York Council, realizing the importance of continuing the maternal mortality studies and research, has approved the Committee's efforts to pursue adequate funding so that the studies can be recommenced.

In October, 1979, the Council also approved a resolution submitted by our Committee which endorsed the joint position statement of the American College of Obstetricians and Gynecologists and the American Academy of Pediatrics, which reads as follows:

> "Labor and delivery, while a physiologic process, clearly presents potential hazards to both mother and fetus before and after birth. These hazards required standards of safety which are provided in the hospital setting and cannot be matched in the home situation. We recognize, however, the legitimacy of the concern of many that the events surrounding birth be an emotionally satisfying experience for the family. We support those actions that improve the experience of the family while continuing to provide the mother and her infant with accepted standards of safety available only in hospitals which conform to standards as outlined by the American College of Obstetricians and Gynecologists and the American Academy of Pediatrics."

This position statement was also approved by the AMA House of Delegates last December.

Various pieces of legislation were forwarded to the Committee by the MSSNY Division of Governmental Affairs for our advice and opinions, which were duly transmitted.

Drs. Harper and Aubry have prepared a paper on "*Drugs and Pregnancy*" which has been submitted to the *New York State Journal of Medicine* for publication.

Respectfully submitted,

Roderick McLean, M.D., *Chairman*

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

The reference committee wishes to stress the importance of the continuing efforts of the Committee on Maternal and Child Health to obtain financial support for MSSNY to reinstitute its maternal and perinatal mortality and morbidity studies.

⟹Your reference committee recommends that the report of the Committee on Maternal and Child Health be filed for information.

⟹. . . *The report of the Committee on Maternal and Child Health was* **FILED FOR INFORMATION** . . .

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* Medical Student

MEDICAL ASPECTS OF SPORTS

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Medical Aspects of Sports are as follows:

Donald T. Kasprzak, M.D., *Chairman*	Clinton
Albert B. Accettola, M.D.	Richmond
Arthur M. Bernhang, M.D.	Suffolk
Herbert Bessen, M.D.	Putnam
Richard B. Commentucci, M.D.	Kings
Kenneth E. DeHaven, M.D.	Monroe
Rodney H. Dusinberre, M.D.	Niagara
John Forrest, M.D.	Chemung
Louis N. Frankel, M.D.	Nassau
Robert M. Israel, M.D.	New York
Michael C. Young, M.D.	Putnam
* Bruce Seideman	Albany
Glenn Haughie, M.D., *Advisor*	Albany

The Committee on the Medical Aspects of Sports last met on April 9, 1980. The meeting opened with a tribute to the late Dr. John Marshall, who was a member of the Committee. Dr. Marshall, one of the country's leading authorities on sports injuries, unfortunately died Tuesday, February 12, 1980, in the crash of a private plane near Saranac Lake, New York.

In addition to being a medical doctor, Dr. Marshall was also a doctor of Veterinary Medicine with a keen interest in thoroughbred race horses. He entered Albany Medical College and was graduated in 1965. He became an orthopedist and became a specialist in Sports Medicine. Dr. Marshall was an author of over 40 publications in sports medicine. He became Director of Sports Medicine Services at the Hospital for Special Surgery in New York City. Dr. Marshall was in charge of medical services for the New York City Public School Athletic League and for the Cornell University Athletic Department. He cared for amateur as well as professional athletes. He operated a free clinic for New York City's more than 45,000 athletes who competed in contact sports. He was Associate Professor of Surgery and Clinical Assistant Professor of Anatomy, Cornell University Medical College; Director of Laboratory for Comparative and Experimental Surgery, New York City; and Associate Orthopaedic Surgeon, New York Hospital. Dr. Marshall was the head team physician for the New York Giants Football Team, a consultant to the New Jersey Nets and the U.S. Olympic Ski Team. His contributions to the Committee were invaluable. He shall be missed.

Selection And Classification. The program as instituted by Kenneth Hafner, Project Director of Research, of the New York State Public High School Athletic Association, appears to be functioning quite adequately. Questionnaires requesting opinions of the administrators involved in screening, reported the success of more than 12,000 students of some 700 school districts and gave enthusiastic support. With students more suitably placed in sports, the injury rate dropped. The incidence of injury for all pupils in all sports was found to be remarkably low. It was only 8.26% for all pupils programmed with these procedures. In the category of serious injuries (16-31 +days) it was .47%, including football. For girls it was .31%. The success of the program is obvious. Dr. Sandra Scott, Associate Executive Secretary, feels assured the program will continue. The Committee endorses the program and also hopes for its continuance. A similar program has been formulated for the handicapped students. This is under the direction of Dr. Eugene McNabb. The evaluation of the guidelines by selected schools has been completed. The recommendations from the field are under consideration at present prior to final approval.

Interscholastics for the Handicapped. The program was briefly reviewed by the Committee. The program was initiated during the 1977-78 school year as "Project Perfect" in Section I of New York State through a New York State Education Grant and the permission and cooperation of the New York State Public High School Athletic Association. Rules, regulations, and modifications were adopted from an interscholastic program for physically and mentally handicapped students in the public schools. The undertaking of this project was in part a result of growing concerns for sports competition opportunities for this specialized group within the public schools. In addition, the program meets the interest and requirements of Federal Laws 504, P.L. 94-142 and P.L. 93-112, concerning the education and opportunities for the handicapped. Handicapped students must be afforded the same opportunities, both educationally and athletically, as any other student in the public schools. The Committee felt the project more than worthwhile and agreed with its interest and purpose.

Heat Strokes. Since the inception of mandatory attendance by the coaches and trainers on programs dealing with heat strokes there have been no reported deaths from this entity in the past three years. The Committee felt that it would be helpful for the *Journal* to carry a reminder in the August issue as a caution against heat strokes in interscholastic athletics. In the same vein it was the consensus of the Committee to recommend to the Council that the Medical Society take a position that all coaches and trainers be certified as providers of CPR and that the Medical Society contact the Commission of Education on this point.

Head Injuries. The Committee expressed considerable concern about head injuries sustained in interscholastic sports. It was the general feeling that if feasible, guidelines should be set up for the handling of head injuries concerning the duration of time that an athlete should refrain from sports after receiving a head injury.

Inquiry will be made of the New York State Public High School Athletic Association to ascertain if such a program does exist. The Committee expressed the feeling that coaches and trainers should be versed as to the nature of the problem in view of the grave consequences in some instances.

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* Medical Student

Boxing. Because of several recent deaths in boxing, the Committee felt there is a need for guidelines to be developed for the supervision of all amateur boxing. Dr. Bessen, a Committee member, offered to contact Dr. Edward Campbell, the physician advisor of the New York Athletic Club, for input on the subject.

Assembly Bill A-9705. The Committee discussed this bill, which was introduced by May W. Newburger, member of the Assembly. It proposes the establishment of a Sports Injury Registry. The Committee felt there is merit in the project since it would include all sports and also include junior high schools. The Committee felt considerable statistical data about athletic injuries already exists in the New York Public High Schools Athletic Association and this could be used as a starting framework. The general consensus was that before instituting the program on a Statewide level, a project study should be carried out in one or two areas of the State to study the value of such a program. The Committee felt that the success of the registry would depend on more input from the physicians who treat athletic injuries and felt it would be more beneficial to attack the problem from that standpoint.

Continuing Education. In the past the Committee on the Medical Aspects of Sports participated in the annual State meeting by presenting a program. For the past several years a program has not been presented. The Committee felt that the program represented an opportunity to disseminate information to physicians, trainers, and coaches. The feasibility of presenting a program in conjunction with the orthopaedic division was discussed. It is planned to discuss the matter with Dr. Kenneth DeHaven, who is in charge of the Orthopaedic Program, and perhaps having the Sports Committee participate in the 1981 CME Assembly.

The Chairman wishes to thank all his committee members for their participation. A special thanks to Dr. George J. Lawrence, Jr., and Elizabeth Daepp.

Respectfully submitted,

Donald T. Kasprzak, M.D., *Chairman*

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

⟹Your reference committee recommends that the report of the Committee on Medical Aspects of Sports be filed for information.

⟹. . . *The report of the Committee on Medical Aspects of Sports was* **FILED FOR INFORMATION** . . .

MENTAL HEALTH

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Mental Health are as follows:

Herbert S. Peyser, M.D., *Chairman*	New York
Arthur Reese Abright, M.D.	New York
Harvey J. Bluestone, M.D.	The Bronx
Douglas C. Evans, M.D.	Monroe
Abraham Halpern, M.D.	Westchester
Edith Mila Jurka, M.D.	New York
Allison B. Landolt, M.D.	Westchester
William V. Lewit, M.D.	Westchester
Laurence Loeb, M.D.	Westchester
Stephen Nordlicht, M.D.	New York
Donald H. Schultz, M.D.	Ulster
* John Stuhlmuller	Onondaga

The Committee on Mental Health met four times since the last annual reporting period on November 9, 1979, February 8, 1980, March 27, 1980, and May 30, 1980.

The main concern of the Committee this year was the problem of the dangerous mental patient. In particular the Committee was concerned with those dangerous mental patients under the Criminal Procedure Law who are either not guilty by reason of insanity or have not yet been tried because they had been found to be incompetent to stand trial.

The last two meetings of the Committee were solely devoted to this subject. Both meetings were held in conjunction with the Committee on Psychiatry and Law of the New York State Psychiatric Association, Area II of the American Psychiatric Association (NYSPA), which is chaired by Dr. Naomi Goldstein. Several of the members of the Mental Health Committee also serve on the Committee on Psychiatry and Law. Dr. Peyser also invited guests to participate and advise the Committee including the Honorable Arnold L. Fein of the New York State Supreme Court, Appellate Division; Mr. Harold Smith, Director of the Office of Mental Health's Bureau of Forensic Services; Mr. Ronald N. Gottlieb, Esq., of the Mental Health Information Services, and Peter Guggenheim, M.D., of the New York City Family Court.

The March 27, 1980, meeting was devoted mainly to reviewing the existing programs of the Office of Mental Health's Bureau of Forensic Services and their proposed programs for dealing with dangerous patients as contained in the proposed State budget.

The Forensic Service's Programs and proposals are excellent and both committees strongly supported the budget proposals. The Medical Society of the State of New York (MSSNY) Council approved the Committee recommendation to support the proposals.

Unfortunately, as we later learned, these portions of the budget were not approved by the Legislature. However, the Codes Committee and other agencies of the State Legislature and the Office of Mental Health are continuing to press for their approval in supplementary budget proposal and the MSSNY and NYSPA will also continue to push for support of the programs.

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* Medical Student

The May 30, 1980, meeting was, for the most part, concerned with the Proposed Insanity Reform Law of 1980, as developed by the Law Review Commission and presented to the Committee for consideration by Dr. Halpern, who is a member of both committees, and Dr. Daniel Schwartz of the NYSPA Committee.

The proposed new law tightens post verdict procedures, increases court control, and changes "not guilty by reason of insanity" to "not responsible by reason of insanity".

The plea proposal was almost unanimously supported by the NYSPA's Committee but with reservations. It was their feeling that the proposal is a good one but it does not seem to go far enough. Our MSSNY Committee had not yet had a chance to read the formal report on the proposal and the decision was postponed for discussion at the next meeting.

The Committee recognized the fact that there are many other issues involved in the question of insanity defense such as:

1. Should we push for dropping the Insanity Defense and substituting, as proposed in the Carnahan Report, the verdict of diminished capacity?
2. Should we push for a panel of psychiatrists to advise the court concerning such a plea?
3. Should we push for intensive community surveillance of dangerous mental patients, and if so, what are the constitutional issues involved?
4. With what other procedure for control of these patients should we be concerned?, etc.

It was decided to appoint a joint task force selected from members of the MSSNY Committee on Mental Health and the NYSPA to continue to study the entire problem of the insanity defense issue.

Another issue addressed by the Committees was the problem of the dangerous child or adolescent. It was agreed that the problem has been made more difficult by new laws which changed the status of juvenile delinquents to juvenile offenders, removing them from the jurisdiction of the family court and putting them into the adult criminal law system and its courts.

No one wants to deal with juvenile offenders. There was much discussion as to whether these adolescents could be properly handled in the adult psychiatric wards of hospitals. No position was taken by the Committee, but the task force, when appointed, will also take up this problem.

The other major issues of the year for our Committee involved the Office of Mental Retardation for Developmental Disabilities (OMRDD). To our deep concern, we discovered at the November 9, 1979, meeting that no agency of MSSNY or of the NYPSA or as far as we know, of any medical organization, interfaced with them and indeed they seemed at first quite resistant to dealing with us. The Committee devoted the February 8, 1980, meeting to developing a relationship with OMRDD. James P. Otis, Ph.D., Director of the Bureau of Standards and Policy Planning of OMRDD was invited to attend the meeting. We also recruited a new member, William Lewit, M.D., who has experience and expertise in the area of mental retardation.

Dr. Otis outlined the OMRDD programs and discussed Bill S7031, an act establishing a demonstration project for in-home care for the mentally retarded or developmentally disabled, which the Committee voted to support and it was later approved by the MSSNY Council. Dr. Otis and the Committee agreed to continue their working liaison and Dr. Otis will put others in the OMRDD involved in long range planning in contact with the Committee.

The Committee continues its concern in being able to extend its relationship with the community in general and with the State government in particular. It will continue working with the NYSPA and will continue its aim of reintegrating psychiatry with the field of medicine.

We express our appreciation to the members of the Committee who have given their time and effort to our meetings, especially to Allison B. Landolt, M.D., for his suggestions that have given rise to several of our most important projects. We also appreciate the staff assistance of George J. Lawrence, Jr., M.D., and Mrs. Elizabeth H. Daepp. It proved to be a very active and fruitful year for our Committee.

Respectfully submitted,

Herbert S. Peyser, M.D., *Chairman*

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

⟹Your reference committee recommends that the report of the Committee on Mental Health be filed for information.

⟹. . . *The report of the Committee on Mental Health was* **FILED FOR INFORMATION** . . .

METABOLIC DISEASES

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Metabolic Diseases are as follows:

Arthur H. Dube, M.D., *Chairman*	Onondaga
Joseph Armenia, M.D.	Erie
Robert S. Bernstein, M.D.	New York
Marshall Clinton, M.D.	Erie
William W. Faloon, M.D.	Monroe
Howard Kolodny, M.D.	Nassau
Joel J. Schnure, M.D.	Broome
Edward L. Socolow, M.D.	Westchester
Ian Porter, M.D., *Advisor*	Albany

There has been a proliferation of weight reduction programs throughout the State. In many communities, there have been physicians who specialize in weight reduction. We have previously come out against the case of anorexigenic drug and commercial liquid protein supplements. We have no quarrel with weight reduction programs using accepted medical procedures, i.e. group therapy such as Weight

Watchers or TOPS or behavioral modification or nutrition counseling, but we are concerned about the growth of reduction processes which feature physical examinations by a nurse and purchase of special products to aid in the reduction process, i.e. "permanent weight loss."

At the present time we would urge the State Health Department to investigate such programs and close down those that are primarily commercial enterprises doing a form of medical practice.

For many years, each fall, as a part of Diabetes Week, there have been community supported drives to detect diabetes, initially using urine tests and more recently finger tip blood sugars. We support the need to pick up the undiscovered diabetic, but the diabetes detection drives are not cost effective. The number of new diabetics discovered is not worth the expense of the diabetes drive. We would recommend a regular detection service within local health departments especially for people with a high grade of risk.

A bill to support diabetes research is before the Legislature. The purpose is to identify population patterns regarding diabetes, evaluate industrial efforts, and study the effects in pregnancy. Four areas throughout the State are to be designated: Utica, Buffalo, New York City, and Long Island. We support in principle this type of legislation to help develop useful knowledge in combating diabetes. The Committee was informed that this bill is being amended to make it more specific.

Respectfully submitted,

Arthur H. Dube, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

⟹Your reference committee recommends that the report of the Committee on Metabolic Diseases be filed for information.

⟹. . . *The report of the Committee on Metabolic Diseases was* **FILED FOR INFORMATION** . . .

PHYSICAL MEDICINE AND REHABILITATION

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Physical Medicine and Rehabilitation are as follows:

William H. Georgi, M.D., *Chairman*	Erie
James T. Demopoulos, M.D.	New York
Bruce Grynbaum, M.D.	New York
Edward J. Lorenze, III, M.D.	New York
Milton Lowenthal, M.D.	New York
Boris J. Paul, M.D.	Albany
Ralph A. Pici, M.D.	Westchester
Leon M. Rothman, M.D.	Kings
Asa P. Ruskin, M.D.	Kings
George W. Saniford, M.D.	Broome
Samuel S. Sverdlik, M.D.	New York
* Marc J. Felberbaum	New York
William Taylor, M.D., *Advisor*	Albany

The Committee continued to be concerned with the Physical Therapy Practice Act Bills (A-650, S-3357, A-3843, and S-2613) which had been introduced to the State Legislature last year. The Committee's opposition to the original bill has been strongly supported by the Society. During the past year, several Committee members worked with other society representatives and legislators to amend the bill. As of the time of this report, an amended version was apparently passed by the Senate and referred to the House. Though these amendments amount to a compromise in the Committee's and the Society's original objections, it maintains the rights of the physician to prescribe physical therapy (versus merely referring to the physical therapists) and to supervise Physical Therapy Assistants. The bill also specifically prevents the use of x-ray by physical therapists. The Committee is generally satisfied with this amended version and appreciates the strong support given by the Society in this matter.

Last year the Council approved the Committee recommendation to the State Health Department that the physician member of the survey team be in charge of surveying the Rehabilitation Department of each hospital. The Committee was informed that the State Health Department, while making joint surveys with JCAH, provides only nonphysician personnel for this survey. Therefore, the Committee felt it necessary to resubmit a proposal to the JCAH and the American Medical Association.

The following resolution was proposed:

"*Whereas*, Acute and chronic disabling disorders arising from disease and aging are medical problems; and

Whereas, The evaluation, care, and treatment of such patients are the responsibility of physicians; therefore be it

Resolved, That the survey eligibility criteria should be determined by physicians; and be it further

Resolved, That the evaluation of rehabilitation services should be performed by physicians."

The Committee was informed by Dr. Fineberg that in the Council meeting of April 17, 1980, this resolution was discussed in detail. The Council had felt that the resolution could be reworded so that a portion of rehabilitation that is physician directed and physician controlled could be evaluated by physicians and the rest by the other members of the team. Council referred the resolution back to the Committee for rewording. The Committee has been unable to meet since this information was received but will hope to have rewording carried out by the next meeting of the Council.

Also, last year the Committee had recommended that a statement be added in an appropriate section of the State Code to clearly indicate the primary role and responsibility of physicians in the provision of comprehensive rehabilitative care. This recommendation had been referred back to the Committee by the Council for clarification and formal statement. The Committee discussed amendment to the code and this matter was also discussed with Mr. James C. Tunny,

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* Medical Student

Director of the Bureau of Health Care Standards of the New York State Department of Health. It was finally agreed that the current code reflects the Committee's concerns in a reasonable way and the Committee, therefore, withdraws its recommendation.

The Committee wishes to express its appreciation to Dr. George Warner for his continued advice and guidance in the problems that have arisen during the current year.

Respectfully submitted,

William H. Georgi, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Committee on Physical Medicine and Rehabilitation be filed for information.

⟹ *. . . The report of the Committee on Physical Medicine and Rehabilitation was* **FILED FOR INFORMATION** . . .

PREVENTIVE MEDICINE

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Preventive Medicine are as follows:

Russell C. Johnson, M.D., *Chairman*	Orange
Duncan W. Clark, M.D.	Kings
Gerald J. Duffner, M.D.	Wayne
Stanley L. Erney, M.D.	Broome
Yehudi M. Felman, M.D.	Kings
Harry S. Lichtman, M.D.	Nassau
Thomas S. Bumbalo, M.D.	Erie
Leonard L. Heimoff, M.D.	The Bronx
* Sharon Strong	New York
Harry Feldman, M.D., *Advisor*	Onondaga
Richard Rothenberg, M.D., *Advisor*	Albany

The Committee on Preventive Medicine met twice since the last meeting of the House of Delegates, on November 27, 1979, and on April 8, 1980.

The matter of premarital serological testing for syphilis and gonorrhea had been discussed by the Committee for several years, with the consensus being that the law requiring such testing should be abolished. The Council supported the position of this Committee and the Legislature has been alerted to MSSNY's support of Bill S2656 which eliminates the requirement for serological testing before obtaining a marriage license. This bill and others similar to it are still in Committee.

Your Chairman was present at Assemblyman Tallon's Health Committee hearing on "Promoting Public Health." As an outgrowth of the Committee study, Bill A-10435 was introduced by Assemblyman Tallon. It provides for State aid to municipalities for the purpose of promoting public health. On the advice of your Committee the MSSNY is also supporting this bill.

It was predicted at the Committee's November meeting that there would be some outbreaks of influenza during the winter, but no severe epidemic was anticipated. Dr. Rothenberg reported that the New York State Department of Health had prepared an influenza program but was keeping it at a low key. He also reported that all school children must be immunized for rubella before being admitted to school in the fall of 1980.

The Committee discussed the 1979 Surgeon General's report, "*Healthy People,*" which sets up five national health goals as follows:

Healthy Infants
Healthy Children
Healthy Adolescents & Young Adults
Healthy Adults
Healthy Older Adults

Actions to be taken to achieve these goals are grouped into three categories:

1. Key preventive services
2. Measures which can be used by government and other agencies to protect people from harm.
3. Activities which individuals and communities can use to promote healthy life styles.

The Committee agreed to endorse the principles and goals of the report and decided to address health education as a major priority for health promotion and disease prevention.

Finally the Committee was asked to address the proposal for consolidating the New York City and the New York State Vital Registration Systems. It was the consensus that these two functions should continue to be separate.

Respectfully submitted,

Russell C. Johnson, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

Your reference committee approves the decision of the Committee on Preventive Medicine to make health education its number one priority.

⟹ Your reference committee recommends that the report of the Committee on Preventive Medicine be filed for information.

⟹ *. . . The report of the Committee on Preventive Medicine was* **FILED FOR INFORMATION** . . .

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* Medical Student

SCHOOL HEALTH

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on School Health are as follows:

Norman B. Schell, M.D., *Chairman*	Nassau
Viola F. Anderson, M.D.	Westchester
David N. Broadbent, M.D.	Monroe
Edward M. DiTolla, M.D.	New York
Stanley Forray, M.D.	Queens
Robert B. Hayes, M.D.	Livingston
Bentley D. Merrim, M.D.	Kings
John S. Tanner, M.D.	Clinton
Martin C. Ushkow, M.D.	Onondaga
Jacob J. Wiener, M.D.	Nassau
* Frank P. Cammisa, Jr.	New York
Andrew Fleck, Jr., M.D., *Advisor*	Albany
Olive Pitkin, M.D., *Advisor*	New York

During the last five years there has been a growing trend to liberalize the policies re: disqualifying school sports candidates with many physical abnormalities previously classified as "absolute contraindications." This includes playing in contact sports with conditions such as impaired testicles, eyes, or kidneys. In 1976, the New York State Legislature passed Education Law 4409, which provided the legal mechanism for the impaired student to commence a special proceeding in the Supreme Court to enjoin the school district from prohibiting his or her participation. The petition of the parent or guardian must contain affidavits of two or more physicians stating their opinion that the student is "physically capable of participating in an athletic program, that participation would be reasonably safe, and any special or preventive measures or devices needed to protect the student would be used." The court can grant such petition "if it is satisfied that it is in the best interest of student to participate . . . and that it is reasonably safe for him to do so." The involved school district will not be held liable for any injury sustained by the participating student.

The Committee consensus was that the school physician should be able to recommend qualifications of some impaired students — with the informed consent of the parent — under certain circumstances and precautions. For example, the probability of permanent emotional trauma resulting from exclusion of the student with one testis from athletic program participation most likely far exceeds the probability of permanent physical trauma resulting from his participation with proper protection. Accordingly, the Committee will attempt to obtain annual, specific sports injury incidence data from the New York State High School Athletic Association. It will also ask MSSNY's legal counsel to gather information on any incidents of school physicians being sued for their decisions involving medically high risk students participating in sports.

Under a new State Education Law, beginning in February 1979, scoliosis screening is required once a year for pupils between 11 and 16 years of age. The Committee recommended that this screening performance be limited to school health personnel. Subsequent amendment by the MSSNY Council inserted the words "under the supervision of a physician." This was then forwarded to the State Education Department by way of the State Board of Medicine.

In the belief that many sports injuries and cardiovascular accidents in schools can be prevented by adequate history taking, the Committee has studied many national, state, and local sports candidates' questionnaires. A concise series of key questions will be prepared as an interval history before each sports season. This will be completed by student athlete and parent and submitted to the school health office, with guaranteed confidentiality. The school physician and nurse will carefully review the questionnaire and past medical record of each candidate before physical examination is performed. Positive findings in history will necessitate further scrutiny by history or physical. The final version of the recommended form should be approved by the Committee members within the next two months. It would then be sent to the Council for final approval before publication in the *New York State Journal of Medicine*.

At its fall meeting, Dr. Christine Williams, of the American Health Foundation (AHF), presented a full description of the KYB (Know Your Body) programs which the AHF has implemented in several schools in New York City and Westchester County. Several thousand elementary and high school students (5-7 years and 10-15 years) have participated in a chronic disease primary prevention program which stresses nutrition, anti-smoking, and exercise. This included health knowledge questionnaire, measurement of height, weight, skin-fold thickness, serum cholesterol level, blood pressure, and a modified Harvard step test of pulse recovery rate after exercise. (Up to 36% of the children showed presence of one or more of these risk factors.) These results were recorded on a personalized "Health Passport" which will have yearly updated entries during three years of follow-up tests. The educational-intervention package incorporated a teacher's guide for classroom learning activities which were planned to focus on personal behavior changes based on the individual health evaluation experience of discovered risk factors.

Similar risk factor screening and risk-reduction intervention programs have been proposed on a pilot basis to two interested school districts in Nassau County by the County Health Department. Thus far, there are many visualized problems in the projected plan which have delayed acceptance by the respective school boards.

On behalf of the entire Committee, the Chairman wishes to thank George J. Lawrence, Jr., M.D., and his staff for their first rate advice and assistance throughout the course of the year.

Respectfully submitted,
Norman B. Schell, M.D., *Chairman*

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman*.

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* Medical Student

⇒Your reference committee recommends that the report of the Committee on School Health be filed for information.

⇒. . . *The report of the Committee on School Health was* **FILED FOR INFORMATION** . . .

CONTINUING MEDICAL EDUCATION

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Continuing Medical Education are as follows:

Peter B. Farnsworth, M.D., *Chairman*	Westchester
Melvin H. Becker, M.D.	New York
Marvin L. Bloom, M.D.	Erie
Edward D. Coates, M.D.	Dutchess
John S. Davis, M.D.	Otsego
William C. Felch, M.D.	Westchester
Solomon Hershey, M.D.	The Bronx
George Robert Lovell, M.D.	Monroe
William Mackler, M.D.	New York
William F. Mitty, Jr., M.D.	New York
William P. Nelson, III, M.D.	Albany
Stephen Nordlicht, M.D.	New York
James R. Nunn, M.D.	Erie
Ward L. Oliver, M.D.	Schoharie
Robert Lee Patterson, Jr., M.D.	New York
Richard Lee Pearlman, M.D.	Richmond
Richard N. Pierson, Jr., M.D.	New York
Bernard J. Pisani, M.D.	New York
Bernard Saul Post, M.D.	Nassau
Theodore J. Prowda, M.D.	Oneida
Charles D. Sherman, Jr., M.D.	Monroe
John F. Spring, M.D.	Broome
Tamarath K. Yolles, M.D.	Suffolk
Julia L. Freitag, M.D., *Advisor*	Albany
John Roach, M.D., *Advisor*	Albany

Since the last House of Delegates meeting of the Medical Society of the State of New York the Continuing Medical Education Committee has met four times: October 3, 1979, December 14, 1979, March 14, 1980, and June 6, 1980.

Survey Activities. Six new applications for surveys were received since our last report. Of these, two institutions were surveyed, one approved and the other disapproved. Four institutions were found to be ineligible for surveys on the basis of information received. Three institutions, previously accredited, applied for resurveys, all were resurveyed and approved. These activities resulted in the accreditations of the following institutions:

Rochester Academy of Medicine — full 4 year accreditation (resurvey)

Flushing Hospital & Medical Center — Provisional accreditation for two years (1st survey)

Beekman-Downtown — New York Infirmary — full 4 year accreditation (resurvey)

New York Academy of Medicine — full 4 year accreditation (resurvey)

Because MSSNY is recognized by both AMA and LCCME as the official accreditating agency in New York State for institutions providing intrastate CME activities, our Committee continues to inform both AMA and LCCME of those institutions which we accredit.

MSSNY Requirement for CME. MSSNY members are again reminded that the deadline for fulfilling the Continuing Medical Education membership requirement is March 1, 1981. Members may choose between one of the following six methods in meeting the requirement.

1. AMA-PRA (unexpired)
2. Satisfying the CME requirement of a recognized Specialty Society.
3. Passing a certification or recertification exam of the Specialty Board.
4. Obtaining a certificate of special competence from a Specialty Board.
5. Serving as a Resident in an approved training program.
6. Special method for MSSNY members.

The Council approved the Committee's recommendation that certification and/or recertification of a physician by a Specialty Board fulfill the MSSNY CME requirement for a period of *three* years.

The AMA has taken the position that a physician who completes three successive years of the MSSNY CME method #6 would be eligible to apply and receive the PRA from the AMA.

CME Council of the State of New York, Inc. The Committee has continued to work closely with the CME Council of the State of New York, Inc. The Council is composed of five representatives from each of the following bodies: The Associated Medical Schools of New York, the Association of Medical Specialty Societies of New York, and the Medical Society of the State of New York. The Council also has one advisor from the New York State Department of Health and one advisor from the New York State Department of Education. The Council's activities are financially supported by contributions from the specialty societies, the medical schools, and MSSNY. The present officers of the Council are: Stanford Wessler, M.D., President; Marilyn M. S. Kritchman, M.D., Vice-President; and Solomon G. Hershey, M.D., Secretary-Treasurer.

It is well at this time to repeat the purposes of the CME Council, which are to foster a Statewide approach for continuing medical education, using relevant educational means, to improve the quality of medical care, by:

— making periodic determinations of the needs for continuing medical education;

— encouraging continuing medical education programs for New York State physicians;

— developing procedures for documenting physician participation in continuing medical education; and

— maintaining a registry of ongoing continuing medical educational programs.

Respectfully submitted,

Peter B. Farnsworth, M.D., *Chairman*

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

⟹Your reference committee recommends that the report of the Committee on Continuing Medical Education be filed for information.

⟹. . . *The report of the Committee on Continuing Medical Education was* **FILED FOR INFORMATION** . . .

FORENSIC MEDICINE

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Forensic Medicine are as follows:

Leslie Lukash, M.D., *Chairman*	Nassau
Michael M. Baden, M.D.	New York
Dominick J. DiMaio, M.D.	Kings
Judith M. Lehotay, M.D.	Erie
Henry Siegel, M.D.	Westchester
Arthur A. Stein, M.D.	Albany
Robert L. Sullivan, M.D.	Schenectady
Sidney B. Weinberg, M.D.	Suffolk
* Tom Kimball	New York
George M. Warner, M.D., *Advisor*	Albany

The Forensic Medicine Committee convened to discuss multiple problems concerned with the medico-legal investigation of death.

The Committee addressed itself to the problem of the physician's responsibility to the pronouncement of death. Last year, this was brought to the attention of the Medical Society at its Annual Meeting. At that time, there was a great deal of opposition to the idea that trained, nonphysicians may in the absence of a physician have the responsibility of pronouncement of death. The problem of pronouncement of death continues to exist in urban and semi-urban communities as an outgrowth of two factors:

1. The lack of availability of physicians, and
2. Patients being cared for by institutions; placing the responsibility of pronouncement on the local medical community rather than on the institution.

The problem of pronouncements is compounded by the fact that doctors are not available in many instances to certify death. The Committee feels that this problem still exists and will only increase in the future, but hopes that each community could solve the problem of pronouncement of death and increase the availability of physicians to certify death in their patients.

The Committee discussed a longstanding concern, namely that the medico-legal investigation of death in the State of New York should be upgraded.

They recognize that the Coroner system in many small counties exist because of economic reasons, which in small counties could be overcome by regionalization. The Committee is willing to recommend that an Ad Hoc Committee be formed to assist the Governor's Office in looking into the improvement of the Medical Examiner's system in certain areas in the State of New York.

The last item of concern to the Committee was one that confronted the same Committee in the past. A written report submitted by Dr. Milton Helpern in 1976 to the Medical Society of the State of New York discusses the independence of the Medical Examiner and the threats to its existence by the compromising of its independence.

The Committee wishes to express the thoughts of Dr. Milton Helpern, namely that the Medical Examiner's Office must be an independent agency working in concert with the District Attorney's Office and the Police Department, and making its diagnoses and conclusions available to all agencies, including the Health Department. Dr. Helpern's report stresses three points in particular:

1. That Medical Examiners remain independent agents — funded directly, not through the Health Department.
2. An extension of Medical Examiners systems into other counties.
3. Continuation of reimbursement but directly to the Medical Examiner's Offices.

The following represents portions of Dr. Helpern's Forensic Medicine Committee Report submitted in 1976:

> "From being an agency for the transmittance of assistance, Health Departments have been placed in a position of domination over medical examiner's offices that they are not qualified to hold merely because they have more money and more administrative personnel. Medical Examiner's Offices should have their own adequate quota of trained professional personnel. The investigative work of the Medical Examiner's Office into deaths and the fact that it may be called upon to investigate deaths for which a Health Department may be considered responsible should be enough reason why a Health Department would not want to include a Medical Examiner's Office. No subordinate agency can properly investigate an agency of which it is a part without suspicion of collusion.
>
> "It is understandable why city and county jurisdictions in order to qualify for reimbursement of 50% of their operating budget are willing to submerge a Medical Examiner's Office into some other agency like the Health Department. There is no objection to obtaining reimbursement but accountability of a medical examiner's office should be to the higher division of government as well as its own and not to the instrument which funnels the reimbursement to it.
>
> "Although many findings resulting from investigations by a Medical Examiner's Office are important to the public health, it is not primarily a public health agency. It works in concert with the Police Department and District Attorney's Offices as well as having responsibilities to the Health Department. Its findings are of paramount importance for the administration of criminal and civil justice. It is essential that a Medical Examiner's Office remain an entirely independent unit of government with a direct line of responsibility in a municipality to the Mayor who should not delegate his responsibility to the appointee of another agency. The appointment of chief medical examiner in New York City is made by the

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* Medical Student

Mayor from a list promulgated after competitive examination held by the Civil Service Commission. In County and State jurisdictions, an appointive commission does this. The Medical Examiner enjoys tenure and cannot be summarily dismissed.

"All members of the Forensic Medicine Committee agreed that any funding for Medical Examiner's Offices available from the State should be paid to the city or county government and earmarked for the Medical Examiner's Office and not diverted to other agencies' non-related needs. On May 16, 1975, the Committee on Forensic Medicine of the MSSNY reaffirmed the principle of strict autonomy for Medical Examiner's Offices in the municipality of New York City and in counties throughout New York State. The entire Committee recommended and requested that the MSSNY support the autonomous position of these offices and remove the superstructure of the health departments from its operation. This is not meant in any way to minimize or dilute the present clearly delineated responsibility of Medical Examiners to Health Departments.

"The Committee on Forensic Medicine went on record as opposed to the present method of reimbursement of medical examiner's offices with State funds administered through county and municipal health departments. It strongly recommends that funds for reimbursement pass through the State Controller's Office to the Controllers' Offices of New York City and other counties with established medical examiners' systems, and that the implementation of these funds be carried out by the controllers's agencies. The Committee has transmitted its recommendations to the Council of the MSSNY for approval and support which were granted at the July, 1975, meeting. It is not opposed to reimbursement but to the present system whereby Medical Examiner's Offices receive State funds by way of county and municipal Health Departments. It strongly recommends that all such funds from the State be used for improvement of the medical examiner's office as intended."

Respectfully submitted,

Leslie Lukash, M.D., *Chairman*

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⇒*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

Your reference committee approves the suggestion of the Committee on Forensic Medicine that the Medical Examiner system be extended on a regional basis throughout the State to replace any existing Coroner Systems.

⇒Your reference committee recommends that the report of the Committee on Forensic Medicine be filed for information.

⇒. . . *The House, after discussion, voted to* **ADOPT** *the report of the Committee on Forensic Medicine . . .*

INFORMATION TECHNOLOGY IN MEDICINE

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Information Technology in Medicine are as follows:

William A. Bauman, M.D., *Chairman*	Westchester
Bernard B. Brody, M.D.	Monroe
Ralph L. Engle, Jr., M.D.	New York
Elemer R. Gabrieli, M.D.	Erie
Robert M. Klein, M.D.	Westchester
Leon Pordy, M.D.	New York
Charles T. Ryder, M.D.	New York
Arthur A. Stein, M.D.	Albany
* Philip Gilly	New York
John Uppal, Sc.D., *Advisor*	Albany

The Committee met November 12, 1979, January 14, and May 19, 1980. During 1979–80 the President of the Medical Society, G. Rehmi Denton, M.D., the Council, and members of the Committee on Information Technology in Medicine addressed and influenced issues related to safeguarding confidential medical information in computer-stored data bases.

In the summer of 1979 members of the Society participated in public hearings concerning *private regulations* that amended section 405.30 of Article 2, Subchapter A of Chapter V of Title 10 — New York Codes Rules and Regulations. Approval of this landmark amendment to the regulations is significant. The amendment defines which data are to be considered confidential ("deniable") in regard to access from the State's computerized health data base. The regulations were developed because the Office of Health Systems Management of the New York State Department of Health established a Statewide Planning and Research Cooperative System (SPARCS) to develop alternate cost-effective means of hospital reimbursement, to calculate reimbursement rates, to investigate fraud and abuse, to oversee medical audit and utilization reviews, to plan resource allocation, to obtain data for Article 28 approval processes, to carry out epidemiological studies, and to perform health care research studies. The SPARCS system depends on a computerized health data base, derived from the mandated uniform hospital billing and discharge abstracts. Without the amended regulation 405.30, diagnostic and other personal data regarding the physician-patient relationship would have been easily obtained and disseminated. The amended regulations exert controls and provide penalties for disclosure of physician or patient names and related medical information. Although not 100% infallible, the New York State health privacy regulations go a long way to prevent inappropriate disclosure. The Committee expresses its gratitude to Drs. Denton, Way, Fishman, Gabrieli, and Goldstein for their public statements and to members who spent many hours in negotiations with members of the Health Department. Mr. Richard Berman and Ms. Joanne Quann of the Office of Health Systems Management agreed with the privacy recommendations and have subsequently strongly supported them when challenged by the Department of

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* Medical Student

H.E.W. Your Committee will continue its vigilance in regard to abuse of computerized health data. We will report from time to time in the *Journal* of the MSSNY and will participate wherever possible in agency policy decisions. We published an editorial in the *Journal* in January and are preparing another.

The Committee was unable to endorse House of Delegates Resolutions 79-9 and 79-10 regarding funding of the New York State Association for Confidentiality of Health Data, Inc., and legislation regarding medical data centers. The Council, on advice of the committee, disapproved these resolutions.

The Committee reviewed the MSSNY existing educational programs related to computers and office practice. They found them to be deficient. The programs cannot be modified to provide an effective appraisal of the use of computers in office practice of medicine. The Committee will continue its investigation and make appropriate recommendations.

The Committee was informed of the problems experienced by the MSSNY's computer system and has offered help to the Society and to Mr. Garnock of the staff, should such be requested.

The Committee focused attention on proposed methods for classification of diagnoses and procedures made possible by computer technology (e.g. Diagnosis Related Groups). Under the impetus of third party controllers and reimbursers (private and public) alternatives to the bases for hospital reimbursement aim to reimburse hospitals on the basis of complexity of patient care, rather than on the length of stay. In most cases existing medical terminology and classification schemes have been altered to reflect cost considerations. Distortion of medical terminology to meet reimbursement needs is viewed by the Committee as a dangerous precedent which will further obfuscate our medical language.

The Committee wishes to thank Mrs. Elizabeth Daepp, George J. Lawrence, Jr., M.D., and Henry I. Fineberg, M.D., for their encouragement, help, and support.

Respectfully submitted,

William A. Bauman, M.D., *Chairman*

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman*.

Your reference committee recommends that the annual report of the Committee on Information Technology in Medicine be filed for information.

Your reference committee noted that the Committee on Information Technology in Medicine reviewed the existing programs of the Medical Society of the State of New York relating to computers and office practice, and they were found to be deficient. Your reference committee agrees with the Committee that there is a need for the development of educational programs to provide an effective appraisal of the use of computers in office practice of medicine which would include an evaluation of hard and software available to physicians.

Your reference committee also noted the Committee's attention to the proposed methods for classification of diagnoses and procedures made possible by computer technology (i.e., Diagnosis Related Groups). Third parties aim to reimburse hospitals on the basis of complexity of patient care, rather than on the length of stay.

Existing medical terminology and classification schemes have been altered to reflect cost considerations. Distortion of medical terminology to meet reimbursement needs is viewed by the Committee as a dangerous precedent which will further obfuscate our medical language.

⟹Your reference committee recommends that the report of the Committee on Information Technology in Medicine is filed for information.

⟹. . . *The report of the Committee on Information Technology in Medicine was* **FILED FOR INFORMATION** . . .

Resolution 80-12, School Fluoride Rinse Programs

Introduced by Medical Society of the County of Orange, Inc.

Whereas, The Medical Society of the State of New York has a policy of supporting fluoridation of drinking water as a disease prevention measure; and

Whereas, Scientific evidence has continued to demonstrate the safety of fluoridation; and

Whereas, There continues to be some reluctance by a number of vocal groups of persons to accept the facts about the safety of fluoridation; and

Whereas, Children between the ages of one to fourteen years receive the maximum benefit of the fluoride ion; and

Whereas, There is an alternative to fluoridation of drinking water, namely, fluoride rinse programs in the schools, which although more expensive and less effective, is less expensive and more effective than oral fluoride medication; and

Whereas, There are financial incentives for schools to apply for the first-year funding from the New York State Department of Health for voluntary fluoride rinse programs; therefore be it

Resolved, That the Medical Society of the State of New York endorse the concept of school fluoride rinse programs; and be it further

Resolved, That the members of MSSNY encourage the schools to participate in fluoride rinse programs.

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman*.

The Committee amended Resolution 80-12 by the insertion of the phrase "in those communities without fluoridation of drinking water" in the second resolved. The second resolved would then read as follows:

Resolved, That the members of MSSNY encourage the schools to participate in fluoride rinse programs in those communities without fluoridation of drinking water.

⟹Your reference committee recommends that Resolution 80-12 be adopted as amended.

⟹. . . *The House voted to* **ADOPT** *Resolution 80-12* **AS AMENDED** . . .

Resolution 80-36, Establishment of Skilled Nursing and Other Health Related Facilities

Introduced by Medical Society of the County of Queens

Whereas, A review of the stay of hospitalized Medicare patients by the PSRO of Queens County indicates that a significant percentage of the hospitalized population is awaiting transfer to nursing homes, the waiting time for transfer from acute care beds to nursing homes may take as long as four to eight weeks and occasionally a longer period of time; and

Whereas, The cost of such care represents an enormous financial burden on the Federal government, the people of the State of New York, and the people of the City of New York; and

Whereas, The present attitude of the Health Department of the State of New York and the Public Health Council is such as to mitigate against investor owned nursing homes and health related facilities; and

Whereas, The regulations under which skilled nursing homes and health related facilities are governed are the same regardless of the financial structure of the facility; and

Whereas, It has been repeatedly shown that investors owned skilled nursing facilities and health related facilities are more cost effective than church or nonprofit corporation facilities; and

Whereas, The County of Queens has a number of investor-owned nursing facilities which number cannot be increased because of the attitude of the State Department of Health; therefore be it

Resolved, That the Medical Society of the State of New York inform the Public Health Council and the Health Department of the State of New York of the cost savings which would be realized by permitting and encouraging the establishment of sorely needed investor-owned skilled nursing facilities and health related facilities in Queens County; and be it further

Resolved, That the good offices of the Medical Society of the State of New York be utilized to aid the Medical Society of the County of Queens in its effort, and to seek to facilitate this concept in all counties in the State of New York.

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

Your reference committee has considered Resolution 80-36 and wishes to present the following substitute resolution:

Resolved, That the Medical Society of the State of New York inform the Public Health Council and the Health Department of the State of New York of the cost savings which would be realized by permitting and encouraging the establishment of sorely needed, cost-effective skilled nursing facilities and health related facilities capable of meeting the State's standards, whether investor-owned, voluntary or public.

⟹Your reference committee recommends adoption of the substitute resolution for Resolution 80-36.

. . . The House voted to **ADOPT** *the substitute resolution for Resolution 80-36 . . .*

During the discussion of the above resolution, your reference committee heard testimony reflecting the need for an additional category of long-term health care facilities, the Intermediate Health Care Facility, for those patients who require a sheltered environment, but less than skilled nursing services.

⟹Your reference committee recommends that the Council explore this modality with State officials.

⟹*. . . The House voted to* **ADOPT** *the above recommendation of the reference committee . . .*

Resolution 80-28, Physician Verification of Triplicate Prescription Analysis

Introduced by Medical Society of the County of Erie

Whereas, Information relating to triplicate prescriptions stored in the computer data bank of the New York State Department of Health is readily available to anyone under the State's Freedom of Information Act; and

Whereas, Such data includes the prescribing physician's name, the type and amount of drug and dosages, as well as other data; and

Whereas, No procedure exists which requires the State Health Department to check with the physician involved as to the accuracy of the data before making it available to anyone under the Freedom of Information Act; therefore be it

Resolved, That the Medical Society of the State of New York undertake discussions with the Department of Health of the State of New York with the objective of establishing a procedure which would require that the State Health Department verify the accuracy of the data in the Triplicate Prescription Computer Data Bank with the physician involved before such data is disclosed to anyone.

PAST HOUSE ACTION: Resolution 74-37

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

Your reference committee heard extensive evidence on the subject of the Triplicate Prescription Program. The chief concern expressed by the membership relates to the subject of confidentiality of obtained data. We were also told of successful dialogues being held between several county medical societies and the New York State Department of Health, which result in peer audit and review at the local level of unusual prescribing practices.

The reference committee therefore wishes to substitute the following resolution for Resolution 80-28:

Resolved, That the Medical Society of the State of New York encourage the establishment of Prescription Practice Committees throughout the State; and be it further

Resolved, That the Medical Society of the State of New York undertake discussions with the Department of Health of the State of New York with the objective of establishing a procedure which would require that the State Health Department verify the accuracy of the data in the Triplicate Prescription Computer Data Bank with these committees.

⟹Your reference committee recommends adoption of the substitute resolution for Resolution 80-28.

⟹*. . . The House voted to* **ADOPT** *the substitute resolution for Resolution 80-28 . . .*

Resolution 80-39, Opposition to Expansion of the Triplicate Prescription Program

Introduced by G. Rehmi Denton, M.D., as an Individual

Whereas, The New York State Department of Health desires to expand the list of drugs requiring a triplicate prescription; and

Whereas, At the National Conference on Multiple Prescription Programs, held in Albany, New York, on September 8, 9, and 10, 1980, serious questions were raised as to the effectiveness of the Triplicate Prescription Program as it is now constituted in New York State; and

Whereas, Evidence has now accumulated that with more understanding, education, and awareness of the development of patient dependence on some noncontrolled drugs, such as Valium, there has been a marked, voluntary reduction in the prescription use of these drugs; therefore be it

Resolved, That the House of Delegates of the Medical Society of the State of New York oppose the addition of any drugs to the triplicate prescription list; and be it further

Resolved, That the House of Delegates recommend to the New York State Department of Health that it seriously study possible alternatives to the Triplicate Prescription Program, to the end that abuses of prescribing privileges can be controlled in a cost-effective manner without creating inconveniences and extra expenses to the great majority of professionals who practice ethically; and be it further

Resolved, That this resolution be referred to the Council for action.

and

Resolution 80-53, Suspension of the Triplicate Prescription Program

Introduced by James R. Nunn, M.D., Delegate,
Section on Family and General Practice

Whereas, Fiscal responsibility is an important responsibility of those authorities entrusted with the public funds of the citizens of the State of New York; and

Whereas, It is incumbent upon lawmakers to assess the economic impact of publicly funded programs; and

Whereas, The New York State Department of Health is in the process of reviewing expansion of the Triplicate Prescription Program to include additional controlled substances; and

Whereas, The authority of the Commissioner of Health of the State of New York regarding rescheduling or the addition of controlled substances to the New York State Triplicate Prescription Program, as defined in the current statute, is limited to the recommendation of substances to the legislature, except in the case of emergency situations where he may act on a particular substance; therefore be it

Resolved, That the Medical Society of the State of New York through the House of Delegates recommend to the New York State Legislature to suspend the Triplicate Prescription Program until an impartial management assessment group, under contract to the legislature, compiling and assessing all pertinent data, and analyzing and evaluating the program as a whole, establishes a realistic projection of the cost to the State of expanding the program to include Schedule III and Schedule IV drugs, and determines the true cost/benefit ratio of the program as it has been conducted to the present day; and be it further

Resolved, That MSSNY request that programs initiated and funded by the State of New York Department of Health be discontinued after five years unless expressly reauthorized by the legislature after a determination of such programs' economic cost and social benefits to the public. In making this determination, the Commissioner of Health shall establish procedures and systems akin to the certificate of need concept utilized in other state-financed or administered health programs; and be it further

Resolved, That MSSNY recommend to the New York State Legislature that the emergency authority of the Commissioner of Health of the State of New York (to reschedule or add to the New York State Triplicate Prescription Program a particular drug substance in emergency situations), expire after 60 days unless specifically authorized for continuation by the legislature.

EXPLANATORY NOTE: Pursuant to the current statute, rescheduling decisions or permanent additions to the Triplicate Prescription Program of the State of New York rest solely under the auspices of the legislature after a notice of proposed rulemaking in the New York State Register subject to comment and open hearings.

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⟹*Report of the Reference Committee on Public Health and Education:* The following report was presented by Nathaniel B. Messinger, M.D., *Chairman.*

Your reference committee reviewed Resolutions 80-39 and 80-53, and because of the number and complexity of the suggestions made in these two resolutions, your reference committee wishes to introduce a substitute resolution combining the principles embodied in Resolution 80-39 and 80-53 as follows:

Whereas, The New York State Department of Health is in the process of reviewing the expansion of the Triplicate Prescription Program to include additional controlled substances; and

Whereas, At the National Conference on Multiple Prescription Programs held in Albany, New York, on September 8, 9, and 10, 1980, serious questions were raised as to the effectiveness of the Triplicate Prescription Program as it is now constituted in New York State; and

Whereas, Fiscal responsibility is an important consideration to those authorities entrusted with the use of public funds of the citizens of New York State; and

Whereas, The authority of the Commissioner of Health of the State of New York regarding the addition of controlled substances to the New York State Triplicate Prescription Program, as defined in the current statute, is limited to action taken by the legislature except in the case of an emergency situation in which the commissioner may act on a particular substance as an individual; therefore be it

Resolved, That the Medical Society of the State of New York recommend to the New York State Legislature that the authority of the Commissioner of Health of the State of New York to add a controlled substance to the New York State Triplicate Prescription Program in an emergency situation expire after 60 days, unless specifically authorized for continuation by the legislature; and be it further

Resolved, That the Triplicate Prescription Program be studied after five years, by which time enough evidence may have been accumulated to evaluate its continuation.

⟹Your reference committee recommends adoption of the substitution resolution for Resolutions 80-39 and 80-53.

After discussion, the House amended the substitute resolution by the deletion of the word "after" and the addition of the phrase "by an independent group five years from January 1, 1978" in the second Resolved. The second Resolved would then read as follows:

Resolved, That the Triplicate Prescription Program be studied by an independent group five years from January 1, 1978, by which time enough evidence may have been accumulated to evaluate its continuation.

⟹. . . *The House, after considerable discussion, voted to* **ADOPT** *the substitute resolution as* **AMENDED** *for Resolutions 80-39 and 80-53 . . .*

⟹. . . *The House voted to* **ACCEPT** *the report of the reference committee as acted upon by the House . . .*

MEDICAL SERVICES

COST CONTAINMENT

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Cost Containment are as follows:

Leonard S. Weiss, M.D., *Chairman*	Orange
Samuel M. Gelfand, M.D., *Vice-Chairman*	Nassau
Stephen I. Braitman, M.D.	Suffolk
James M. Flanagan, M.D.	Wayne
Norman R. Loomis, M.D.	Wayne
Jason K. Moyer, M.D.	Broome
John Alan Ramsdell, M.D.	Westchester
Henry W. Schoeneck, Jr., M.D.	Onondaga
Roger W. Steinhardt, M.D.	New York
* Mitchell Levin	Suffolk

The new charge to the Committee on Cost Containment by the MSSNY Council on January 17, 1980, that, "The Committee on Cost Containment be charged with the preparation of a voluntary cost containment program for hospital medical staff," was discussed at great length at the one meeting which was held since the last annual report, and the 16 suggestions formulated (see Appendix "A") were approved by the Council on April 17, 1980, for dissemination in several areas for feedback before making a Statewide distribution of the recommendations.

These 16 suggestions were also to be used in discussions with the appropriate State agencies and legislators to seek modification of existing rules that prevent the implementation of some cost efficient practices.

Brochure on Cost Awareness

A recommendation for a brochure on cost awareness to be distributed by physicians to their patients was also discussed. Following the meeting this matter was taken up with the Director of the Division of Communications. The Committee on Communications has been working on such a pamphlet for some time and had a draft available. The draft was reviewed by all the members of the Cost Containment Committee and a majority recommended that it be offered to all physicians.

The Chairman would like to express his thanks to the members of the Committee who have given of their time and efforts, to Robert J. O'Connor, M.D., Director of the Division of Medical Services, to Mr. William D. Brainin, Associate Director, and to Mrs. Gladys B. Wunsch, Secretary, for their efforts and diligence.

Respectfully submitted,
Leonard S. Weiss, M.D., *Chairman*

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* Medical Student

APPENDIX "A"

May 20, 1980

TO: Presidents and Executive Directors/Executive Secretaries
Medical Societies of the Counties of Albany, Erie, Kings, Monroe, Orange, Warren

FROM: Robert J. O'Connor, M.D., Director
Division of Medical Services

The Medical Society of the State of New York has been disturbed that numerous programs under discussion or in place to lower the cost of health care have emphasized financial aspects with little or no concern with the maintenance of high quality care and accessibility. As physicians our concerns should address not only the maintenance of, but also the further improvement of, quality care. Our State, as well as the nation, could justly be proud of the achievements that our profession has attained in rendering care to our patients.

The MSSNY is troubled by approaches that would destroy the present system, substituting untried new health care delivery systems. The acceptance by health planners that some human "wastage" will occur, and on that basis it is not cost effective to detect and treat a statistically small percentage of the public, is not acceptable to the medical profession. We doubt that the public, aware of such an approach or rationing of medical care, would endorse such a program.

Nevertheless, we recognize that there is always room for improvement in keeping with technological and social changes and raising awareness by physicians of cost factors can effect a more efficient expenditure of the health care dollar.

Two years ago the MSSNY encouraged the county medical societies to form cost awareness committees. The present communication is a follow-up. Enclosed are suggested areas that hospital committees can look into with positive results. We are aware that in some localities considerable effort has already been directed to cost conscious programs, while others have yet to do so. The topics listed are just suggestions to be modified as local area conditions apply.

The MSSNY, through its Cost Containment Committee, stands ready to assist in initiating, modifying, or implementing programs and you are encouraged to seek such assistance if you find it helpful.

In turn we request your help in disseminating the enclosed suggestions for Hospital Cost Awareness Programs to each hospital within your county with the request that they study the 16 recommendations and see if meaningful changes can occur that will effectively reduce costs without sacrificing the quality of medical care.

Your efforts in disseminating this information and collating the results will be appreciated. We ask that you inform us of your activities to date and your plans for the future in regard to cost awareness programs no later than September 15, 1980, so that this information can be conveyed to the House of Delegates at the Annual Meeting from September 28 to October 2, 1980.

TO: Presidents of Hospital Medical Boards and Chairmen of Hospital Cost Effectiveness Committees

FROM: MSSNY — Committee on Cost Containment

SUBJECT: Suggestions for Hospital Cost Awareness Programs

1. Maintenance of High Quality Care — the sine qua non.
    Educational programs.
2. Discussion of economic factors included in at least one case presentation at monthly meetings of departments; e.g. length of stay, tests ordered, medications prescribed, etc. — necessity, alternatives.
3. Ambulatory Care Facilities
    Adequate facilities, utilization, ease of scheduling
4. Length of Stay for Routine Cases
    Evaluation of utilization review effectiveness.
    Appropriate arrangements for re-admission.
    Duplication of tests on re-admission.
5. Pre-admission scheduling of tests (e.g. x-ray) to avoid undue delay and unnecessary hospital stay.
6. Acceptance of Tests Performed Prior to Admission
    Where performed both by hospital or staff physicians.
    X-rays to accompany patient for interpretation by hospital radiologist and entered on hospital chart.
7. Intensive Care Units
    Appropriate utilization.
    Step-down units.
8. Early Discharge Planning
    Involving family members.
9. Home Health Care
    Adequate arrangements with Social Service Department and outside agencies.
    Early planning.
10. Involvement of house staff in program.
11. Coordination with Nursing and other Hospital Departments.
12. Coordination with Hospital Board of Trustees and Administrator.
13. Hospitals should develop a concept of "Swing Beds."
14. Public Relations
    Communication media briefing.
    Community organizations.
15. Establishment of Hospital Professional Efficiency Committees where such do not exist.
16. Establishment of Local Area Inter-relationships between Hospital Committees
    County Medical Society involvement.
    Stated meetings.

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⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Committee on Cost Containment be filed for information.

⟹ . . . *The report of the Committee on Cost Containment was* **FILED FOR INFORMATION . . .**

HEALTH MANPOWER AND RURAL MEDICAL SERVICE

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Health Manpower and Rural Medical Service are as follows:

Donald W. Bidwell, M.D., *Chairman*	Seneca
Stephen W. Blatchly, M.D., *Vice-Chairman*	Tompkins
Edward A. Barrett, M.D.	Orleans
Frank A. Baumann, M.D.	Broome
Thomas E. Cardillo, M.D.	Monroe
Leo J. Swirsky, M.D.	Kings
Leonard Weitzman, M.D.	Suffolk
* Glenford Guy	Suffolk

Since its last report to the House of Delegates, the Committee on Health Manpower & Rural Medical Service held one meeting. The following matters were discussed.

Resolution 79-16, Demographic Survey of Physicians in New York State.

Introduced by the Suffolk County Medical Society.

The House of Delegates at its annual meeting in 1979 adopted Resolution 79-16, which stated in part:

> **Resolved,** That the demographic survey of physicians in New York State be started without further delay, with the initiation of the Pilot Demographic Survey of Health Care Physicians.

This resolution was referred to the Board of Trustees for fiscal approval, which then referred it to the Committee on Research and Development for study.

Members of this Committee, noting that this matter had been referred to another committee, felt that they should go on record as approving the development of a statistical data base of physician distribution by both location and specialty to determine if governmental agencies are indeed correct in their statements that there is a maldistribution and/or shortage of physicians in New York State. The development of this base is of prime concern to the medical community and, although no longer the province of this Committee, it was felt that this Committee should be kept informed about the progress of the demographic study. (See Annual Report of Committee on Research and Development.)

It was further recognized that there is an inherent difficulty in securing verifiably valid statistical information concerning physician distribution in New York State. MSSNY statistics merely reflect physicians registered in this State who are on both active and inactive lists. In no way does it take into account the many physicians who, though not licensed to practice in New York State, render medical services in facilities controlled by the New York State Department of Mental Health, the Veterans Administration, U.S. Public Health Service Hospitals, and residents in teaching institutions attached to medical schools. The total physician population in New York State based on these many sources (not only on physicians licensed to practice, i.e., both members and nonmembers) would give a truer picture of the delivery of health care throughout the State.

The Committee recommended and the MSSNY Council approved on January 17, 1980, that:

> "Through the Council, this Committee be informed on the actions taken by the Committee on Research and Development concerning the methodology of implementing a Statewide demographic survey of health care

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* Medical Student

professionals and further offers the good offices of this Committee to aid the Committee on Research and Development in formulating such a survey. It is further requested that this Committee be apprised of all actions concerning the survey. . . ."

Physicians' Assistants. This program was developed to supply medical personnel in areas where there were needs. The system to date has reflected geographic patterns of great concentration of physicians' assistants in large urban areas where economic incentives and overall facilities are greater, with little or no participation in inner core or rural areas (where shortages may be significant). It is, therefore, felt by the Committee that the Physicians' Assistant Program has not met the purposes for which it was intended.

It was noted that governmental programs to induce medical personnel to practice in underserved areas have not been successful. Various alternative methods were discussed, including such economic incentives as tax abatement and additional reimbursement. This Committee believes that until the government develops substantive programs and incentives for physicians the shortages in underserved areas will continue.

HEW Report on Shortage Areas of Primary Health Care. The Committee reviewed the HEW report on "shortage areas" of primary health care. Some members noted that the supposed shortage areas in their counties are not in agreement with the physicians practicing in these areas and that this discrepancy further adds to the importance of securing a verifiable statistical data base on physician manpower.

District Health Officers. A letter dated May 23, 1979, from the Commissioner of Health of the State of New York concerning the shortage of District Health Officers and the diminishing supply of Public Health Physicians was discussed. Programs administered by District Health Offices have been carried out by District Directors, who are not physicians. Of the 32 organized County Health Departments only 17 maintain full time Public Health Physician Directors. Until such time as additional physicians enter the public health service, the Commissioner is obligated to appoint nonphysicians as Directors.

Ad Hoc Committee to Meet with the New York State Nurses Association re Physicians' Assistants. The purpose of this meeting, at the request of the Nurses Association, was to secure the cooperation of the MSSNY in curtailing the activities of Physicians' Assistants who, acting for the physicians in hospital settings, have issued orders to registered nurses in a manner similar to that of the licensed physician. The MSSNY has inferred that when a physician's assistant is acting under the *direct supervision* of a physician and the physician takes full responsibility for the physician's assistant actions, the physician's assistant is acting in good faith when he issues orders to nurses, and until the law is changed concerning the physicians' assistant program the MSSNY cannot concur with the grievances of the Nurses Association.

The Chairman of the Committee expresses his appreciation to the members of the Committee for the time and effort they have devoted to the problems dealt with. He also wishes to thank Robert J. O'Connor, M.D., Director of the Division of Medical Services, William D. Brainin, Associate Director, and Mrs. Jeanette Palucci, Secretary, for their conscientious efforts and diligence on behalf of the Committee.

Respectfully submitted,

Donald W. Bidwell, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Committee on Health Manpower and Rural Medical Service be filed for information.

⟹ . . . *The report of the Committee on Health Manpower and Rural Medical Service was* **FILED FOR INFORMATION** . . .

HEALTH SYSTEMS AGENCY COORDINATING COMMITTEE

To the House of Delegates, Ladies and Gentlemen:

The members of the Health Systems Agency Coordinating Committee are as follows:

Charles Weller, M.D., *Chairman*	Westchester
Frank J. Bolgan, M.D.	Erie
Kenneth H. Eckhert, M.D.	Erie
John C. Herrman, M.D.	Lewis
David L. Koch, M.D.	Seneca
Morton Kurtz, M.D.	Queens
Thomas D. Pemrick, M.D.	Rensselaer
S. David Pomrinse, M.D.	New York
Jerome Zwanger, M.D.	Nassau

During the past year the Committee met on one occasion. The following matters were discussed:

A general view of the Health Systems Agency Coordinating Committee activities in the New York City area was presented by the Executive Director of the Health Systems Agency of New York City. It was stressed that the HSA-NYC is attempting to establish meaningful ties and dialogue with the Executive Committee of the First District Branch. It is hoped that greater individual physician and Medical Society input in the health planning areas will be encouraged so that information from knowledgeable physicians across the broad spectrum of medicine will aid the HSA in arriving at decisions of a technical nature concerning the rendering of medical care. The agency staff responsible for this activity will confer not only with the private practicing physicians but also with representatives of various medical societies, the New York Academy of Medicine, as well as the medical schools, to secure broad input into contemplated positions to be taken by the HSA of NYC.

The newly appointed health planning coordinator for New York County, and hopefully for the First District Branch, then presented the plan being developed in the First District Branch for an effective means of monitoring output from HSA-NYC and hopefully, by so doing, provide rapid and carefully considered input into the HSA at critical points in the planning process. Discussion ensued among all members present covering both the practical and philosophical aspects of this pilot program and its possible impact on health planning, both locally and Statewide.

The division director stated that although New York County has supplied both the space and funding (with financial support from the Kings County Medical Society) for the health planning coordinator's activities, it is his impression that this should ultimately become a function of New York, Kings, Richmond, and Bronx County Medical Societies. The Health Systems Agency Coordinating Committee recognizes that each HSA area represents a different set of conditions and therefore, local activities may not be applicable, but should be considered in discussions for formulation of other local plans.

A motion was made that the Committee, note with interest, the plan of the First District Branch, to offer its encouragement in pursuing the plan, and to request the First District Branch to keep it informed periodically of progress being made. The Committee further suggests that all county medical societies and/or district branches consider ways to have greater input into health planning in their local areas, perhaps through a Physicians Technical Advisory Panel, as one way. This motion was seconded and passed unanimously.

The above report was accepted for information by the Council on March 20, 1980.

The chairman of the Committee expresses his appreciation to the members of the Committee for the time and effort they have devoted to the problems dealt with. He also wishes to thank Robert J. O'Connor, M.D., Director of the Division of Medical Services, Mr. William D. Brainin, Associate Director, and Alice E. Wheeler, Administrative Assistant, for their conscientious efforts and diligence.

Respectfully submitted,

Charles Weller, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Health Systems Agency Coordinating Committee be filed for information.

⟹ . . . *The report of the Health Systems Agency Coordinating Committee was* **FILED FOR INFORMATION** . . .

HOSPITAL AND PROFESSIONAL RELATIONS (ANNUAL)

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Hospital and Professional Relations are as follows:

Herbert E. Joyce, M.D., *Chairman*	Erie
Norman S. Blackman, M.D., *Vice-Chairman*	Kings
Charles Banas, M.D.	Erie
Solomon Ciprut, M.D.	Kings
John K. Coyle, M.D.	Steuben
Richard L. Fenton, M.D.	Westchester
Jason K. Moyer, M.D.	Broome
William B. Rawls, M.D.	New York
John W. Stoll, M.D.	Livingston
Edward A. Wolfson, M.D.	Broome
* Steve Kaplan	New York

Since the last report to the House of Delegates, the Committee held one meeting during the past year.

Resolution 77-56 Hospital Privileges (for Family Practice Physicians)

Resolved, That Departments of Family Practice be established in New York State medical schools, and in all hospitals where appropriate, with duties and responsibilities comparable to the other departments of the medical staff; and be it further

Resolved, That the Medical Society of the State of New York lend its good offices to accomplish this purposes; and be it further

Resolved, That it be clearly understood that family practice physicians shall be subject to the same criteria evaluation by other hospital departments to delineate privileges to be granted in specific specialty areas, as is applicable to all physicians; and be it further

Resolved, That the Medical Society of the State of New York oppose the arbitrary restrictions of qualified physicians, including those engaged in family practice; and be it further

Resolved, That the American Medical Association be informed of these positions and transmit them to its appropriate subdivisions for implementation; and be it further

Resolved, That the American Medical Association members on the JCAH Board of Commissioners be informed to support this position to eliminate any discriminatory policies; and be it further

Resolved, That the Council report back to the House of Delegates the progress made in achieving the aims of these resolutions.

The subcommittee, consisting of Doctors Blackman, Chairman, Wolfson, and Joyce, appointed at the meeting of this Committee last year to implement the charge of Resolution 77-56 rendered the following report:

SUBJECT: Implementation of Resolution 77-56 entitled "HOSPITAL PRIVILEGES (FOR FAMILY PRACTICE PHYSICIANS") (Approved by the House of Delegates, October 1977)

RESOLVE #1:

That Departments of Family Practice be established in New York State medical schools, and in all hospitals where appropriate, with duties and responsibilities comparable to the

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* Medical Student

other departments of the medical staff.

The MSSNY has in fact sent this resolution to the deans of all of the medical schools in the State of New York urging compliance with the mandates of the House of Delegates as expressed in Resolution 77-56.

The MSSNY has not sent the resolution to any specific hospitals since there has been no determination as to which specific hospitals are "appropriate" for the formation of Departments of Family Practice as contrasted to those that are not.

RESOLVE #2:

That the Medical Society of the State of New York lend its good offices to accomplish these purposes.

The MSSNY has in fact, to the best of its ability, complied with the specific directions of this resolution.

RESOLVE #3:

That it be clearly understood that family practice physicians shall be subject to the same criteria evaluation by other hospital departments to delineate privileges to be granted in specific specialty areas, as is applicable to all physicians.

In a Statewide sampling of family practice departments no instance was uncovered of discrimination against any practitioner solely because he was a family practitioner. The standards set in every institution applied equally to *all* physicians who apply for hospital privileges. It is clear that the same criteria evaluation by other hospital departments to delineate privileges are in fact granted to any physician who meets the requirements and standards of these departments.

RESOLVE #4:

That the Medical Society of the State of New York oppose the arbitrary restrictions of qualified physicians, including those engaged in family practice.

There is no evidence whatsoever that there is any arbitrary restriction of "qualified" physicians who apply for hospital privileges in the hospital setting. The controversy arises in the determination of who is qualified for doing what. The American Academy of Family Physicians has its set of standards. The individual hospitals have their individual and often widely accepted criteria of their own. An arbitrary exclusion or restriction of any physician in this regard is unquestionably illegal if not generally applied to all the physicians on the medical staff of the hospital.

RESOLVE #5:

That the American Medical Association be informed of these positions and transmit them to its appropriate subdivisions for implementation.

Evidence has been presented that this mandate has been fully and completely complied with. A copy of the resolution was sent to the AMA with the urgent request that the provisions of the resolution approved by MSSNY House of Delegates be forwarded to the appropriate subdivisions of the AMA for implementation of the mandates of the resolution.

RESOLVE #6:

That the American Medical Association members on the JCAH Board of Commissioners be informed to support this position to eliminate any discriminatory policies.

Evidence has been presented that this mandate has been complied with by MSSNY. Not only has the AMA been informed, but direct communication with the JCAH has been undertaken to express this will and urge compliance with the resolution and its resolveds.

RESOLVE #7:

That the Council report back to the House of Delegates the progress made in achieving the aims of these resolutions.

This resolve has not yet been achieved. An attempt to do so has been the objective of this subcommittee.

CONCLUSIONS:

It is clear that the MSSNY, to the extent it is able, has made a considerable effort to comply with the mandates of Resolution 77-56. To expect this organization to achieve compliance with the resolveds of the resolution at the local hospital or medical school level seems unrealistic at this time. Further progress involves a complex of social, economic, and professional questions that would have to be resolved by the physicians, trustees, administrators, and other interested parties (including patients) among themselves, in reaching a compromise and a consensus acceptable to all.

The chairman of the subcommittee, Dr. Norman Blackman, during 1979 reported that ten hospitals throughout the State had been contacted, and he felt that this reflected a proper sampling of hospitals, but emphasized he thought any implementation of the charge in the resolution is beyond the scope of this Committee. The Executive Director of the NYS Academy of Family Physicians had been contacted as to whether any specific examples of discrimination had been received in that office, and the answer was in the negative. It was, therefore, concluded that the MSSNY had gone as far as possible to implement the mandate of the resolution and that the MSSNY should use its good offices when problems develop between family physicians and hospitals and establish a mechanism of appeal for resolution of those problems.

The subcommittee appointed this year by the Chairman is as follows: Jason K. Moyer, M.D., Chairman; Vice-Chairman, Norman Blackman, M.D., Charles Banas, M.D., member; Herbert E. Joyce, M.D., ex officio; and Robert J. O'Connor, M.D., Advisor.

The Council approved the recommendation of the Committee that problems of family practitioners and hospital professionals should be resolved at the local hospital medical staff level and that the actions of the subcommittee of the Hospital and Professional Relations Committee be continued to monitor ongoing relations with the deans of medical schools and hospitals vis-a-vis family practice.

Resolution 78-59, Cost Containment and Hospital Efficiency as a Function of the Hospital Medical Staff

Resolved, That the Medical Society of the State of New York urge that the appointment and function of an ad hoc committee of the hospital medical staff designated as the HOSPITAL PROFESSIONAL EFFICIENCY COMMITTEE henceforth be a requirement of hospitals with the objective of providing recommendations that will not significantly compromise the quantity nor the quality of the professional medical care being rendered in the hospital, but might result in cost containment through increased hospital efficiency; and be it further

Resolved, That the Hospital Professional Efficiency Committee of the hospital medical staff be designated and empowered by the medical staff and the board of trustees to investigate any and all matters relating to hospital costs that it shall determine to be appropriate, and make its recommendations to the hospital administrator and the trustees for cost containment, with the advice and the consent of the professional medical staff; and be it further

Resolved, That this resolution be presented to the House of Delegates of the American Medical Association for adoption.

This resolution was introduced by the MSSNY delegates to the December, 1978, AMA House of Delegates; the AMA adopted the following substitute resolution:

"**Resolved,** That the American Medical Association urge hospital medical staffs to establish standing committees with the objective of providing recommendations for cost containment without the compromise of quality medical care."

The members of the Committee felt that most hospitals are addressing the problem in a meaningful manner regardless of which committee is assigned the task.

It was reported that the original AD HOC COMMITTEE ON COST CONTAINMENT had now become a standing committee of the MSSNY and has been given the charge to evaluate and establish criteria at the hospital level by physicians to see if any meaningful reductions in patient days can be effected without sacrificing quality of medical care. As a corollary it was noted that reimbursement formulas would have to be readjusted to reflect any losses in reduction of patient days.

The Committee went on record that any cost containment measure should not be based on denial of proper medical care, but rather a reflection of efficiency in rendering such proper medical care by various modes of cost containment. Emphasis on the new hospital reimbursement formula on the proposed 80-20 program that is to be implemented as of January 1, 1980, should be noted.

The Committee felt that no further action on the resolution was necessary at this time.

Resolution 78-60, Medical Malpractice Insurance as a Mandatory Requirement for Hospital Medical Staff Appointment

Resolved, That the Medical Society of the State of New York urge that medical malpractice insurance coverage shall not be a mandatory requirement for hospital medical staff appointment; and be it further

Resolved, That all hospitals that require medical malpractice insurance of its voluntary professional staffs shall themselves be expected to carry liability insurance for each of its employees, and professional medical liability insurance for its professional employees, including hospital salaried physicians, in amounts equal to the limits of those of the majority of its voluntary medical staff members; and be it further

Resolved, That this resolution be presented at the next meeting of the House of Delegates of the American Medical Association for appropriate action.

The MSSNY delegates to the AMA introduced this resolution at the December, 1978, AMA House of Delegates, and the following substitute resolution was considered:

"**Resolved,** That the AMA adopt the policy that it is the privilege and responsibility of the medical staff of each individual hospital to determine qualifications of hospital medical staff appointment including such questions as whether or not professional liability insurance should be required."

The original resolution and the substitute resolution were referred to the AMA Board of Trustees for consultation with the American Hospital Association and the Joint Commission on Accreditation of Hospitals. At the December, 1979, meeting of the AMA House of Delegates the Board of Trustees presented a lengthy report which stated in summary:

> "Following a review of the reported court decisions and the information provided by the American Hospital Association and the Joint Commission on Accreditation of Hospitals, the Board of Trustees is of the opinion that each hospital medical staff should determine for itself whether it will require professional liability insurance coverage at the commonly prevailing level of policy limits as a condition for membership on the hospital medical staff. The Board believes that if the organized medical staff makes this determination, the members of the medical staff should comply with the requirement.
>
> "The Board of Trustees also believes that if equity demands that voluntary staff members should have insurance coverage so that the burden of financial loss would not fall entirely upon the hospital, then salaried hospital physicians should likewise be covered by adequate insurance or protected financially through self-insurance mechanisms established by the hospital so that the burden would not fall unfairly upon the members of the voluntary medical staff."

The AMA Board of Trustees recommended and the House of Delegates approved the recommendation that the report be adopted in lieu of the New York resolution and the suggested substitute resolution.

It was stated that while it has been determined by the courts that the hospital has the right to protect its fiscal integrity, the physician also has some rights which have not been determined and it was their belief that they will not be determined unless some type of court action is taken similar to that which has been taken on behalf of the hospitals. The Committee was referring to court action in terms of right of the hospital to demand this. It is also the right of the physician to protect his fiscal integrity and when malpractice insurance premiums reach $26,000 this is already threatening the fiscal integrity of not only established practitioners, but especially of young physicians. Unless we have some type of court action which will determine the rights of physicians in this State nothing will be done about it. It ultimately may require legislative action. Our General Counsel had rendered an opinion that trustees of hospitals can mandate professional hospital liability insurance for physicians requesting hospital privileges.

The Committee recommended to the Council that the General Counsel of the MSSNY investigate the possibility of instituting court action on behalf of a physician or a group of physicians who wish to protect their fiscal integrity in hospitals which do not carry proper and sufficient malpractice insurance.

The Council at its March, 1980, meeting, introduced and approved the following substitute motion:

> "The Medical Society of the State of New York shall conduct an investigation as to the status of the malpractice insurance coverage of acute care hospitals in the State of New York. . . ."

Resolution 78-62, Hospital Regulations and Cost Containment

Resolved, That the Medical Society of the State of New York request government — Federal, State, and local to join the medical profession and the hospitals in their efforts to contain the cost of health care by reducing the number of regulations, reports, forms, etc., and thus reduce the cost; and be it further

Resolved, That the State of New York be requested to give an accurate accounting of the costs it incurs in the regulation of hospitals and hospital based services; and be it further

Resolved, That the Joint Commission on Accreditation of Hospitals be urged to review its standards in view of the 1976 report of the Hospital Association of New York State on regulations; and be it further

Resolved, That the Medical Society of the State of New York appoint a task force to study this problem; and be it further

Resolved, That the New York Delegation to the American Medical Association introduce a similar resolution at the interim session of the House of Delegates of the AMA in December, 1978.

The Committee noted that this resolution was introduced into the House of Delegates, AMA, in December, 1978, and was not adopted. No further action on this resolution is required by this Committee.

REPORT OF THE AD HOC COMMITTEE TO MEET WITH HANYS RE STAFF APPOINTMENTS FOR PHYSICIAN MEMBERS OF HOSPITALS IN HOSPITAL SERVICES THAT ARE DISCONTINUED.

At the House of Delegates meeting in September, 1979, the Reference Committee made certain suggestions regarding the Guidelines which were adopted by the House:

The House transposed the last sentence of paragraph B-2 to paragraph B-1. Section B of the "GUIDELINES ESTABLISHED BY THE MEDICAL SOCIETY OF THE STATE OF NEW YORK AND THE HOSPITAL ASSOCIATION OF NEW YORK STATE FOR INDIVIDUAL HOSPITALS AND THEIR MEDICAL STAFFS IN THE DETERMINATION OF MEDICAL STAFF MEMBERSHIP & HOSPITAL PRIVILEGES" now reads as follows:

"B. Granting of Hospital Privileges

"Privileges shall be granted on the basis of the individual qualifications which shall take into consideration the interest, training, experience, and ability of each practitioner.

"1. Hospitals without clinical departments shall grant privileges on an individual basis in accordance with the interest, training, and experience of the applicant. Such hospitals may consult with the nearest departmentalized hospital, if necessary, in the determination of such privileges. It shall be accepted that in today's medical community there is no role for the partially trained specialist.

"2. Hospitals with clinical departments shall grant privileges based on training and experience consistent with the requirements of the various Specialty Boards. Family physicians who apply to such hospitals shall become members of an Administrative Department of Family Practice, with clinical privileges granted on an individual basis as recommended by the Specialty Department in which the specific privilege belongs."

Also adopted by the House was the following amended paragraph 3.

"3. The dilemma of teaching hospitals in obtaining an adequate patient population that would permit the fulfillment of their purposes results in large measure from the lack of admissions by the personal physicians because of the loss of control of their patients when the latter are admitted into such institutions. A solution to this problem can be reached if university hospitals establish a methodology that will effect close cooperation between the personal physicians and the university hospital attending and resident staff, with the personal physicians continually involved in the care of their patients, and observe the policy originally proposed by this Society and later adopted by the AMA and that is that there shall be one physician responsible for the patient's care, and that physician shall be the patient's own private physician."

Resolution from Medical Society County of New York

Whereas, Many hospitals withhold a certain portion of fees earned by private nonsalaried physicians on patients entering the health care system through the clinic and emergency room; and

Whereas, There are no definite guidelines on this problem; and

Whereas, The loss of fees for taking care of these patients affects the younger physicians to a greater extent than the older, established physicians; and

Whereas, There is an ever increasing number of patients who enter the health care system through the clinic and/or emergency room; and

Whereas, The establishment of any system of collection of fees and a deduction of part of these fees by the hospital by any one service would eventually affect the entire hospital and small service could be dominated by the Director; therefore, be it

Resolved, That a voluntary, contractual agreement may be entered into by physicians and hospitals for collection of fees with a reasonable amount being returned to the hospital, but said amount to be determined by the voluntary nonsalaried staff of each hospital but not to exceed 20%; and be it further

Resolved, That where a group bills all patients, the same mechanism may be used for collection of fees from clinic and/or emergency room patients, but the group and/or the hospital may retain a reasonable amount but this amount to be determined by the voluntary nonsalaried staff of each hospital but not to exceed 20%; and be it further

Resolved, a) that any and all arrangements shall be strictly voluntary, b) participation in any such program must not be a condition of hospital and/or medical school appointment; re: appointment or promotion, and c) it shall not in any way prevent a patient or physician arranging for private care the same as other private patients who do not enter through the clinics and/or emergency room; and be it further

Resolved, That no program of deducting a percentage of the fees from the voluntary nonsalaried staff shall be implemented until approved by majority vote by closed ballot of the entire voluntary nonsalaried staff and this includes the percentage rate of deduction; and be it further

Resolved, That the above resolution be submitted to the Council of the Medical Society of the State of New York for introduction at the interim meeting of the American Medical Association.

The Committee stated in the strongest terms that in purely voluntary arrangements between a hospital and a physician regarding fee collections, and more specifically fees withheld, that no particular percentage be noted as acceptable. The Committee goes on record of opposing proration of professional fees between participating physician and hospital unless it is voluntarily made between the two parties. The Committee deplores any exploitation of professional services and feels any sharing of the professional fee is illegal and unethical.

The Council referred the resolution and the motion of the Committee, as well as the discussion that took place during the Council meeting, back to the Committee for further study and report back to the Council.

County Medical Society Hospital and Professional Relations Committees

In May of 1979, the officers of county medical societies were asked to inform the Director of the Division of Medical Services whether their county medical society had established any committee or procedure to deal with hospital-physician relationships and the nature of their activities. Twenty-nine of the county medical societies responded they had committees, 12 responded they had no active committee, and 20 did not reply.

It was suggested that another communication be sent to the county medical societies requesting this information and to those counties responding in the affirmative, to ascertain if the committee was still active and if they had encountered any problems.

The Council approved this recommendation and another letter has been sent to all county medical societies requesting this information.

The Chairman in the name of the MSSNY, as well as personally, extends thanks to the members of the Committee for their time and effort in dealing with the many problems the Committee has dealt with. Appreciation is also expressed for the work performed by Robert J. O'Connor, M.D., Director of the Division of Medical Services, Mr. William D. Brainin, Associate Director, and Miss Alice Wheeler, Administrative Assistant.

Respectfully submitted:

Herbert E. Joyce, M.D., *Chairman*

HOSPITAL AND PROFESSIONAL RELATIONS (SUPPLEMENTARY)

To the House of Delegates, Ladies and Gentlemen:

The Committee met on June 6, 1980, and the following topics were discussed:

The actions of the Council of March 20, 1980, were noted with particular emphasis on the resolution from the New York County Medical Society (Appendix A), and the Council's referral to this Committee for further study and recommendation. The Committee discussed at length the intent and purpose of the resolution and recommends disapproval of the resolution based on the *AMA's 1980 Opinions and Reports of the Judicial Council, Section II — Hospital Relations, subsection 2.15 — Fee Splitting and Hospitals.*

> "There is a variety of financial or contractual arrangements that physicians and hospitals may enter into and find mutually satisfactory. A physician may, for example, be a hospital employee, a hospital associated medical specialist, or an independent practitioner with staff privileges. The form of the contractual or financial arrangement between physicians and hospitals depends on the facts and circumstances of each situation.
>
> "At the same time, it has long been considered improper for an independent attending physician to pay to a hospital a percentage of the fees the physician receives from patients being cared for in the hospital. Such a situation would result in the splitting or sharing of professional fees with a separate nonprofessional entity that has already levied a charge for the goods or services it has provided or made available."

The disapproval of this resolution is predicted on the fact that the intent of this motion is embodied in the *AMA's Opinions and Reports of the Judicial Council.*

The Council at its meeting on September 4, 1980, **DISAPPROVED** the resolution submitted by the New York County Medical Society.

Malpractice Insurance Coverage. The Committee noted the substitute motion which was approved by the Council that the MSSNY shall conduct an investigation as to the status of the malpractice insurance coverage of the acute-care hospital beds in the State of New York. J. Richard Burns, J.D., reported to this Committee that the investigation is still ongoing and the Committee will be informed of the results of the investigation when it is completed. The Council was informed of this on September 4, 1980.

Guidelines Established By the Medical Society of the State of New York and the Hospital Association of New York State for Individual Hospitals and Their Medical Staffs in the Determination of Medical Staff Membership and Hospital Privileges. (Appendix B)

At the request of the Executive Committee of MSSNY a review of the agreement between HANYS and MSSNY (Appeals Mechanism, Section C) was undertaken. The Committee felt that the Guidelines as enunciated should be maintained as written. It was the intent of these Guidelines to form a special body, comprised of members of HANYS and MSSNY to attempt adjudication of intractable problems relative to physicians and hospitals after all avenues of due process had been explored by the parties involved. It must be noted that such a body in order to function properly would have to have the approval of both the physician and the hospital in order to mediate the problem. The Council received this for information on September 4, 1980.

The Committee then reviewed the entire Guidelines and recommended to the Council the following editorial changes:

> Section B, paragraph 2, second sentence:
>
> "Family physicians who apply to such hospitals shall become members of an Administrative Department of Family Practice, 'where it has been developed' with clinical privileges granted on an individual basis as recommended by the Specialty Department in which that specific privilege belongs." (additions underlined)
>
> Section B, first paragraph after B-3
>
> ~~"It shall be mentioned~~ "All new medical staff members shall pass through a period of observation and supervision to assure that each member shall be able to demonstrate the ability to apply his training and experience in an appropriate manner." (deletions lined through)

Since the report by the Committee has resulted in our recommendations for editorial changes it was felt that this does not have to be referred to HANYS for approval.

The Council at its meeting on September 4, 1980, approved the above recommendations.

The Chairman of the Commission on Medical Services at the Council meeting accepted the recommendation that the Guidelines be included in the manual of position papers of the Medical Society of the State of New York.

A member of the Committee noted his dissatisfaction with Section B-3 of the Guidelines which he felt did not clearly reflect the spirit and intent of the established policy of MSSNY, i.e., that there be one physician responsible for the patient's care and that physician shall be the patient's own private physician. This minority report is an attempt by this Committee to reflect the opinions expressed by the physician member who noted that the following three paragraphs might clearly enunciate the MSSNY position:

> "(1) Since many patients do not realize that the control of their particular case may not always lie with the attending private physician but rather with the house staff, patients entering the teaching hospital setting should be informed and consent to such an agreement.
>
> "(2) When a difference of medical opinion between the private physician and the house staff develops, the final decision concerning the care and treatment of the private patient should lie with the private physician as the designated agent of the patient.
>
> "(3) When in his judgment it is required, the private physician should be encouraged to write orders for his patient at his discretion."

Respectfully submitted,

Herbert E. Joyce, M.D., *Chairman*

APPENDIX "A"

Whereas, Many hospitals withhold a certain portion of fees earned by private nonsalaried physicians on patients entering the health care system through the clinic and emergency room; and

Whereas, There are no definite guidelines on this problem; and

Whereas, The loss of fees for taking care of these patients affects the younger physicians to a greater extent than the older, established physician; and

Whereas, There is an ever increasing number of patients who enter the health care system through the clinic and/or emergency room; and

Whereas, The establishment of any system of collection of fees and a deduction of part of these fees by the hospital by any one service would eventually affect the entire hospital and small service could be dominated by the Director; therefore, be it

Resolved, That a voluntary, contractual agreement may be entered into by physicians and hospitals for collection of fees with a reasonable amount being returned to the hospital, but said amount to be determined by the voluntary nonsalaried staff of each hospital but not to exceed 20%; and be it further

Resolved, That where a group bills all patients, the same mechanism may be used for collection of fees from clinic and/or emergency room patients, but the group and/or the hospital may retain a reasonable amount but this amount to be determined by the voluntary nonsalaried staff of each hospital but not to exceed 20%; and be it further

Resolved, a) that any and all arrangements shall be strictly voluntary, b) participation in any such program must not be a condition of hospital and/or medical school appointment; re: appointment or promotion, and c) it shall not in any way prevent a patient or physician arranging for private care the same as other private patients who do not enter through the clinics and/or emergency room; and be it further

Resolved, That no program of deducting a percentage of the fees from the voluntary nonsalaried staff shall be implemented until approved by majority vote by closed ballot of the entire voluntary nonsalaried staff and this includes the percentage rate of deduction; and be it further

Resolved, That the above resolution be submitted to the Council of the Medical Society of the State of New York for introduction at the interim meeting of the American Medical Association.

APPENDIX "B"

GUIDELINES ESTABLISHED BY THE MEDICAL SOCIETY OF THE STATE OF NEW YORK AND THE HOSPITAL ASSOCIATION OF NEW YORK STATE FOR INDIVIDUAL HOSPITALS AND THEIR MEDICAL STAFFS IN THE DETERMINATION OF MEDICAL STAFF MEMBERSHIP AND HOSPITAL PRIVILEGES.

A. General Guidelines for Membership on the Medical Staff.

1. License to practice medicine in New York State.
2. Ethical and moral character.
3. Residence within a reasonable working distance from the hospital.
4. Willingness to contribute with service in an assigned role within the hospital provided that the nature of this service is commensurate with his type of practice and is approximately equal to that, provided by other members of the medical staff.
5. Willingness to abide with the By-Laws of the medical staff.

B. Granting of Hospital Privileges

Privileges shall be granted on the basis of the individual qualifications which shall take into consideration the interest, training, experience, and ability of each practitioner.

1. Hospitals without clinical departments shall grant privileges on an individual basis in accordance with the interest, training, and experience of the applicant. Such hospitals may consult with the nearest departmentalized hospital, if necessary, in the determination of such privilege. It shall be accepted that in today's medical community there is no role for the partially trained specialist.
2. Hospitals with clinical departments shall grant privileges based on training and experience consistent with the requirements of the various Specialty Boards. Family physicians who apply to such hospitals shall become members of an Administrative Department of Family Practice, where it has been developed, with clinical privileges granted on an individual basis as recommended by the Specialty Department in which that specific privilege belongs.
3. The dilemma of teaching hospitals in obtaining an adequate patient population that would permit the fulfillment of their purposes results in large measure from the lack of admissions by the personal physicians because of the loss of control of their patients when the latter are admitted into such institutions. A solution to this problem can be reached if university hospitals establish a methodology that will effect close cooperation between the personal physicians and the university hospital attending and resident staff, with the personal physicians continually involved in the care of their patients, and observe the policy originally proposed by this society and later adopted by the AMA and that is that there shall be one physician responsible for the patient's care, and that physician shall be the patient's own private physician.

All new medical staff members shall pass through a period of observation and supervision to assure that each member shall be able to demonstrate the ability to apply his training and experience in the appropriate manner.

Furthermore, all members of all clinical departments shall be subject to appropriate peer review on a periodic and equitable basis as a means of assuring continuing quality patient care.

C. Appeals Mechanisms

While it realized that most hospitals have Bylaws with a built-in due process mechanism for staff membership and medical privileges, the possibility for obstruction to staff membership and medical privilege for inappropriate reasons does exist.

Therefore, it is recommended that an Appeals Board consisting of representatives from the MSSNY and the HANYS be created as a BODY to which individual appeals might be submitted, but only after an attempt for a local solution to the problem by the concerned county medical society has proven to be unacceptable to either the hospital or to the individual practitioner.

■

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

⟹ Your reference committee recommends that the annual and supplementary reports of the Committee on Hospital and Professional Relations be filed for information.

⟹ . . . *The annual and supplementary reports of the Committee on Hospital and Professional Relations were* **FILED FOR INFORMATION** . . .

Your reference committee noted that contained within the supplementary report of the Committee on Hospital and Professional Relations are the "GUIDELINES ESTABLISHED BY THE MEDICAL SOCIETY OF THE STATE OF NEW YORK AND THE HOSPITAL ASSOCIATION OF NEW YORK STATE FOR INDIVIDUAL HOSPITALS AND THEIR MEDICAL STAFFS IN THE DETERMINATION OF MEDICAL STAFF MEMBERSHIP AND HOSPITAL PRIVILEGES."

These guidelines were reviewed at the reference committee hearing and it was recommended that they be amended as follows: Paragraph B-2, by the deletion of the words "an Administrative" and addition of the word "the" in the fifth line and by the deletion of the words "granted on an individual basis as recommended by the Specialty Department in which that specific privilege belongs," and the addition of the words, "assigned by the Department of Family Practice with the approval of the specific department in which privileges are requested" in lines seven and eight.

Paragraph B-2 would then read as follows:

"2. Hospitals with clinical departments shall grant privileges based on training and experience consistent with the requirements of the various Specialty Boards. Family physicians who apply to such hospitals shall become members of the Department of Family Practice, where it has been developed, with clinical privileges assigned by the Department of Family Practice with the approval of the specific department in which privileges are requested."

It must be noted that these guidelines were originally developed by a joint committee of the Hospital Association of New York State and the Medical Society of the State of New York but have been approved only by the Medical Society of the State of New York. Your reference committee recommends the amendment of these guidelines as outlined above.

⟹ . . . *The House voted to* **ADOPT** *the recommendation of the reference committee* . . .

IPA/HMO

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on IPA/HMO are as follows:

Charles Weller, M.D., *Chairman*	Westchester
John W. Abbuhl, M.D.	Albany
Gerald Blumenthal, M.D.	Suffolk
Thomas E. Cardillo, M.D.	Monroe
Samuel M. Gelfand, M.D.	Nassau
Franklyn C. Hayford, M.D.	Schenectady
Robert Kohn, M.D.	Erie
Kendrick A. Sears, M.D.	Onondaga

The Medical Society of the State of New York has created a new Committee on Individual Practice Association/Health Maintenance Organization which held two meetings during the year. The following matters were discussed.

The Committee agreed to the following:

OBJECTIVE:

The Committee is to act as an information and coordinating source for IPAs being developed by the county medical societies.

GOALS:

1. Develop data on existing IPAs in New York State; and
2. Assist interested county medical societies in assessing the feasibility of developing an IPA.

The following areas of concern were identified:

1. The difficulty of county medical societies in educating their members as to the concept of an IPA/HMO;
2. The difficulty of county medical societies to properly implement organizational procedures even when the concept is understood;
3. The relative lack of ability to identify informational sources that could help educate county medical societies in the understanding of the IPA/HMO concept; and
4. The necessity for understanding the legal aspects in establishing an IPA/HMO particularly as related to FTC regulation.

It was suggested that the members of the Committee address solutions to the above concerns in writing to the Division of Medical Services of the Medical Society of the State of New York. This Division will summarize the information received and prepare it for discussion at the next meeting of the Committee.

It was decided to send a questionnaire tabulating the existence of HMOs in New York State to the Executive Directors of the county medical societies. (See Appendix "A.")

The Chairman then presented ongoing developments in IPAs. He noted that the formation of any IPA generally results from one of three conditions:

a. Local interest on the part of the private practicing physicians.
b. Development and establishment of closed panel HMOs within the region.
c. A population density large enough to support an IPA.

To prevent undue difficulty any IPA program at time of implementation must have in place some form of utilization review and quality assurance as well as a data system capable of supplying the necessary data elements without having a destructive time lag.

Overutilization of services by patients must also be considered as another problem by which IPAs encounter difficulties and lose fiscal integrity. This is well known and certain IPAs, recognizing this problem, have established coinsurance by patient, per visit in order to cut down on overutilization of services.

General discussions ensued relative to the implementation of IPAs in various areas of the State and some of the problems involved in such implementation based on local conditions. The following recommendation was made and tabled indefinitely by the MSSNY Council on April 17, 1980:

> "That a patient at the time of enrollment should have a primary care physician who would be responsible for the total health care of that individual and all referrals to specialists must be done by the primary care physician."

The Committee wishes to go on record of recommending to the MSSNY Council that they consider a program for the business session at the Annual Meeting of the MSSNY to be held in September, 1980, wherein a group of panelists will be available for an in-depth discussion relative to IPA/HMOs. The Committee further recommends that representatives of the Department of Health, Education, and Welfare, service organizations, such as Med Serco; and individual directors of IPAs be selected to present a broad overview of the IPA/HMO concept.

This recommendation was tabled indefinitely by the MSSNY Council on April 17, 1980.

Summary of HMO Questionnaire

The members of this Committee received the summary of the HMO Questionnaire for their consideration and evaluation. (See Appendix "B.")

The representative from Albany County noted that the closed panel HMO in this county had entered into a contractual relationship with the Department of Surgery of the Albany Medical Center Hospital, wherein all surgery procedures rendered to HMO patients will be done by staff members of the Albany Medical Center Hospital.

The survey developed through this Committee's work has brought additional insight into IPA/HMO programs throughout the State. It is believed that this can be a viable assessment tool for ongoing activities in the field. A recommendation was made that the survey be done on an annual basis.

The Chairman of the Committee expresses his appreciation to the members of the Committee for the time and effort they have devoted to the discussions dealt with. He also wishes to thank Robert J. O'Connor, M.D., Director, Division of Medical Services, William D. Brainin, Associate Director, and Mrs. Jeanette Palucci, Secretary, for their conscientious efforts and diligence.

Respectfully submitted,

Charles Weller, M.D., *Chairman*

APPENDIX "A"

HMO QUESTIONNAIRE

Name of HMO ______________________________

Address of HMO ______________________________

____

Name of IPA ______________________________

Address of IPA ______________________________

____

Service areas covered ______________________________

____

Model Type ______________________________

(i.e. IPA, Staff, Group)

Name of Executive Director ______________________________

Name of Medical Director ______________________________

Sponsors ______________________________

____

Federally Qualified? ______________________________

Current Status ______________________________

(Planning, Initial Development, Operational)

If Operational:

Number of M.D.s ______________________________

Number of Subscribers ______________________________

Other Information ______________________________

____

____

____

____

Please fill out and return to: Robert O'Connor, M.D., Division of Medical Services, Medical Society of the State of New York, 420 Lakeville Road, Lake Success, New York 11042

APPENDIX "B"

RESULTS OF HMO QUESTIONNAIRE

CODE: HMO — (H)
IPA — (I)

OPERATIONAL — O
PLANNING — P
INITIAL DEVELOPMENT — I.D.
FEASIBILITY — F

SPECIAL REMARKS*

COUNTY	NAME OF IPA/HMO	MODEL TYPE	NUMBER OF M.D.s	NUMBER OF SUBSCRIBERS	CODE	FEDERALLY QUALIFIED YES	FEDERALLY QUALIFIED NO	CURRENT STATUS
Albany	Capital Area Community Health Plan	Staff	16	25,000	H	X		O
Chautauqua*	—	—	—	—	—	—	—	—
	* HMO or IPA being considered, but no action yet taken for Chautauqua County							
Chemung	—	—	—	—	—	—	—	—
Dutchess*	Health Shield	Staff	330+	245,000	H			F
	* This study is being conducted by individual businessmen and is not supported by DCMS.							
Dutchess/ Ulster*	** Hudson Valley Health Services Foundation, Inc.	IPA	330+	245,000	I	X		F
	** Dutchess and Ulster Co. Med. Soc. physicians are negotiating with BC/BS to set up an IPA-HMO sponsored by 'The Foundation.' A decision was made to pursue this activity as separate county societies.							
Genesee,) Niagara,) Orleans)	Western New York Group Health, Plan, Inc.	HMO			H			
	Individual Practice Assn. of Western New York	IPA			I	X		I.D.
Kings	—	—	—	—	—	—	—	—
Oneida, Herkimer, Madison, Chenango*	* The Medical Societies of the Counties of Oneida, Herkimer, Madison, and Chenango are not participating and do not plan to participate in HMO activity.							
Onondaga	Health Services Medical Corp. of Central New York	Staff	9	3,000	H	X		O
Putnam	—	—	—	—	—	—		—
Queens	—	—	—	—	—	—		—
Richmond	—	—	—	—	—	—		—
Schenectady*	* Schenectady Foundation for Medical Care is currently developing an IPA/HMO. They are planning to apply for a grant for a feasibility study from HEW.							
St. Lawrence	—	—	—	—	—		—	—
Suffolk*	Community Health Plan of Suffolk	HMO	23	17,500	H	X		O
	* Although the SCMS did not openly oppose the formation of this HMO, we question its need in the form it has taken, its location, the tax dollars it has obtained, etc.							
Westchester	Physicians Health Plan	IPA				?		P
	Westchester Community Health Plan	HMO		16,000		X		O
Erie	Individual Practice Association of Western New York	IPA				X		O

■

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman*

⟹ Your reference committee recommends that the report of the Committee on IPA/HMO be filed for information.

⟹ . . . *The report of the Committee on IPA/HMO was* **FILED FOR INFORMATION** . . .

INTERSPECIALTY

To the House of Delegates, Ladies and Gentlemen:

The members of the Interspecialty Committee are as follows:

Donald W. Hall, M.D., *Chairman*	Erie
Herbert Lansky, M.D., *Vice-Chairman* (*Pathology*)	Erie
Thomas A. Anderson, M.D. (*Pediatrics*)	Dutchess
Harold E. Berson, M.D. (*Psychiatry*)	Kings
Philip C. Bonanno, M.D. (*Plastic and Reconstructive Surgery*)	Westchester
Lois E. Brennan, M.D. (*Family Physician*)	Ontario
Stephen D. Burstein, M.D. (*Neurosurgery*)	Nassau
Stephen A. Gettinger, M.D. (*Obstetrics & Gynecology*)	Suffolk
Franklin S. Glickman, M.D. (*Dermatology*)	Kings
Bernard Jacobs, M.D. (*Orthopedic Surgery*)	New York
Roger S. Kaufman, M.D. (*Otolaryngology*)	Onondaga
Robert M. Kohn, M.D. (*Internal Medicine*)	Erie
Theodore C. Max, M.D. (*General Surgery*)	Oneida
Andrew J. McGowan, M.D. (*Urology*)	New York
John D. O'Brien, M.D. (*Ophthalmology*)	Suffolk
Victor A. Panaro, M.D. (*Radiology*)	Erie
Asa Ruskin, M.D. (*Physical Medicine & Rehabilitation*)	Kings
Edward C. Sinnott, M.D. (*Anesthesiology*)	Nassau

The major thrust of the Interspecialty Committee's activities since its last Annual Report has been the request from the Chairman of the Workers' Compensation Board for data to update the Workers' Compensation Medical Fee Schedule.

As background information for new representatives of the various specialties on the Committee, a resume of the history of the Interspecialty Committee, its inception in 1969, and its charge from the MSSNY Council to deal with socioeconomic factors that involve interspecialty relationships was explained. The representatives of the specialties are nominated by their respective societies rather than by the MSSNY President on a geographical basis, and to date the MSSNY President has always appointed their nominees to the Committee. The members of the Interspecialty Committee should be members of the board of governors of their societies, or at least attend the latter's meetings so as to transmit first hand the proceedings of this Committee and in turn be able to voice the official position of their groups, rather than individual opinions. Alternate members were also provided for so that in the absence of the regular members, another representative would be knowledgeable of what had and was transpiring.

Each specialty society was represented on and actively engaged in the deliberations that finalized in the 1975 relativity, and all groups approved it. Because of the actions taken by the Federal Trade Commission and the Justice Department, the planned annual review of relativity as to appropriateness, inequities or other problems never took place. Over the years since the 1973 Workers' Compensation Medical Fee Schedule was promulgated by the WCB Chairman the MSSNY has received complaints from various specialty societies, as well as individual members, that the schedule was outdated, not reflective of patterns of practice in New York, and urging MSSNY to seek modification. The committees involved, and the MSSNY Council, have repeatedly voted to change the 1973 WC Medical Fee Schedule relativity to that of the MSSNY's 1975 study.

Last year, when the WCB Chairman requested the MSSNY to submit data to update the WCB Medical Fee Schedule, the members of this Committee were requested to have their respective specialty societies review the sections particular to them and compare procedures with the CPT 4, including those new procedures not in the schedule, deleting those procedures no longer performed, and correcting the relativity where necessary for submission. Very few were received and the question of the legal risk involved if any group discussed relativity or fees was raised. The MSSNY Council was well aware of the legal implications when it decided to authorize its Workers' Compensation & Occupational Health Committee and Interspecialty Committee to gather the necessary information and submit such because an official governmental agency (in this instance the WCB Chairman in compliance with New York State Law) requested the MSSNY to furnish data "on the amount of remuneration deemed by such society to be fair and adequate for the types of medical care to be rendered." Since the Workers' Compensation Medical Fee Schedule is promulgated by the WCB Chairman and not the MSSNY or any component groups, and the State is not subject to antitrust charges, it was the considered opinion of the MSSNY Council that we would not be at risk in responding to the NYS Workers' Compensation Board in the manner described. Our discussions here and within the specialty societies involve only the Workers' Compensation Medical Fee Schedule.

Material distributed to the Committee designed to call attention to the effect on present fees if the relativity of the present WC Medical Fee Schedule (1973) is changed to that of the MSSNY survey concluded in 1975 led to the erroneous conclusions that such change had already been accepted by the MSSNY when in fact the purpose was to afford an opportunity to all disciplines to review, deliberate, and recommend any justified modifications. When a conclusion is reached by the Interspecialty Committee, it will be reviewed in turn by the MSSNY Workers' Compensation & Occupational Health Committee and then by the Council before the

MSSNY representatives make any presentation to the Workers' Compensation Board Advisory Committee or to the Workers' Compensation Board Chairman.

The MSSNY position has been that fees paid for the treatment of patients covered by the Workers' Compensation Law should be usual, customary, and reasonable. The request has been presented to the WCB Chairman year after year, only to have it rejected.

After lengthy discussions of the utilization of any relativity scale and of negotiating with the Workers' Compensation Board on any basis other than usual, customary, and reasonable fees, it was felt that a stand by the MSSNY that *only* usual and customary fees was acceptable to us would result in the termination of any meaningful negotiations with the Workers' Compensation Board.

Incidentally, about two years ago the California State Medical Society also attempted to have usual and customary fees be the payment mechanism but desisted when the Attorney General ruled that the law called for a fee schedule, and usual and customary fees did not meet this criteria. The New York State Law also calls for a fee schedule and the New York State Workers' Compensation Board Chairman has expressed an opinion similar to that of California.

In a spirit of total frustration with the entire system the Committee voted to discontinue the use of all RVS tables in the Workers' Compensation Medical Fee Schedule and continue to request usual and customary compensation for services. However, the MSSNY Council on March 20, 1980, disapproved this recommendation and approved instead the three recommendations made by the Workers' Compensation & Occupational Health Committee on February 21, 1980, which were as follows:

1. That the MSSNY continue to seek the payment of usual, customary, and reasonable fees to physicians for services rendered to patients covered by the provisions of the WCL;
2. That, however, if this approach is not accepted by the Chairman of the WCB, the MSSNY continue to participate actively in the deliberations of the Advisory Committee on the Medical Fee Schedule and Allied Problems of the WCB; and
3. That the MSSNY continue to update the terminology and relativity of the present Workers' Compensation Medical Fee Schedule and seek the implementation of such revision as early as possible.

Subsequently, a meeting was called by the President of MSSNY, G. Rehmi Denton, M.D., with the Presidents of the Specialty Societies on April 3, 1980, to discuss the reasons and necessity for revising the Relative Value Scale and updating its terminology, methodology, and relativity. This was done so that MSSNY can answer the request of the Chairman of the Workers' Compensation Board as to what is construed as fair and reasonable reimbursement for medical services rendered, as required by law.

In light of the above, the Interspecialty Committee, on May 8, 1980, reconsidered its actions and unanimously accepted the recommendation of the President of the MSSNY to go on record as favoring the position that the MSSNY continue to update the terminology and relativity of the present Workers' Compensation Medical Fee Schedule and seek the implementation of such revision as early as possible. At the meeting of July 10, 1980, it was requested that the portion of the RVS particular to each specialty be reviewed by the specialty and that recommendations be forwarded to the Director of the Division of Medical Services no later than August 15, 1980.

Letter from Office of General Counsel of Workers' Compensation Board. A letter of May 6, 1980, addressed to the New York State Society of Internal Medicine from the Office of the General Counsel of the Workers' Compensation Board reflects the opinion of their Counsel that participation by individual specialty societies in revising the Workers' Compensation Medical Fee Schedule along with MSSNY, as required by Law, and as requested by the Chairman of the Workers' Compensation Board, is permissable. The Committee noted that there are differing legal opinions as regards the jeopardy of specialty societies or their representatives, but since such request has been made to the MSSNY, if there is any jeopardy it is to the MSSNY and not to the specialty societies or their representatives, and the MSSNY is prepared to defend any action instituted by the Justice Department or the Federal Trade Commission.

Workers' Compensation Update. The Consultant to the Division of Medical Services reviewed the activities of the Advisory Committee on the Medical Fee Schedule and Allied Problems of the Workers' Compensation Board, which encompass CPT 4 coding procedures, adjustment of office visits, possible regionalization, and the request by Family Physicians to be included in the specialty section as all other specialties.

At his suggestion, the Committee on May 8, 1980, reaffirmed its position of approval of the levels of service under Workers' Compensation Medical Fee Schedule recommended to the Council at its meeting of May 17, 1979, and approved by the Council on June 21, 1979. (See Appendix "A.")

At the meeting on July 10, 1980, it was requested that concrete examples as to what constitutes a comprehensive first visit and what constitutes an intermediate first visit be developed by each specialty and forwarded in writing to the Division Director no later than August 15, 1980, for the guidance of the carriers participating in this pilot program.

The Chairman of the Workers' Compensation Board had engaged an actuarial firm to develop a program of regionalization for physicians rendering services under the Workers' Compensation Program. Figures developed by MSSNY reflected a vast difference between the different localities and further emphasized the value of the Patterns of Practice and Overhead Business Expense surveys in determining data, if regionalization is implemented, to refute statistics this Society feels do not actually reflect the patterns of practice and expenses of physicians. (See Annual Report of the Committee on Workers' Compensation & Occupational Health.)

Patterns of Practice Survey and Overhead Business Expense Survey. At the Committee meeting held during the course of the last Annual Meeting the activities of this Committee since its inception concerning efforts to secure a Patterns of Practice Survey and Overhead Business Expense Survey of specialties to provide a statistical data base to refute governmental agencies and third party payors who quote figures which seem to be at variance with what is considered the norm for physicians practicing in New York State was reviewed.

Although much effort has been made to secure the cooperation of the specialty societies, problems have always caused the surveys to be postponed. A great sense of urgency now exists since governmental encroachment on fees and schedules is more pronounced, e.g., utilization of the Workers' Compensation Medical Fee Schedule in No-Fault cases.

The request for approval by the specialty societies of the surveys was reemphasized by G. Rehmi Denton, M.D., the then President-Elect of the MSSNY, who stated that the need for accurate actuarial data was urgent now and that if we do not stand together we will undoubtedly hang separately.

It was further explained that one additional survey will be required, which the specialty societies themselves can develop, concerning the 10 most common procedures pertinent to the individual specialty.

As regards the Patterns of Practice Survey (see Appendix "B" for proposed questionnaire) the objection on the part of some physicians to signing their names to the form after divulging the information requested was based on their fear that confidentiality could not be assured. It was reaffirmed that the MSSNY would make every effort to uphold the confidentiality of all participants in the survey. The reticence of some physicians to placing their names on the form might possibly be overcome by the utilization of the first three numbers of their zip code, rather than their names, or, perhaps, the name might be made an optional item and physicians who are hesitant about including their names might instead initial the form to insure its validity.

In order for the Overhead Business Expense Survey (see Appendix "C" for proposed questionnaire) to be most effective, it would have to be done yearly with the same physicians in order to note any changes. A covering letter would be sent with the questionnaires in order to make clear the intent and purposes of the surveys. An additional covering letter would be required for certain specialties, namely, Anesthesiology, Pathology, and Radiology, where special forms would be developed to reflect their different patterns of practice from the other specialties, since they are hospital associated practices or in large part, referrals.

To the many questions concerning the mechanics of implementing the program, it was noted that MSSNY will attempt to get the most up to date information by consultation with market people as well as statisticians.

After much discussion, a recommendation was made that the MSSNY conduct appropriate medical economic surveys to secure verifiable data to negotiate with third party payors and government. This was passed with one abstention, and the MSSNY Council on October 25, 1979, voted its approval.

No-Fault Suit Update. The Consultant to the Division of Medical Services brought the Committee up to date concerning negotiations between the State, MSSNY, and Judge Conway in our request for an injuction against the implementation of the Workers' Compensation Medical Fee Schedule in No-Fault cases. When the suit was started it was believed that we had two aspects — one of constitutionality and the other of the inequity of the fees. Of his appearance before Judge Conway, the Consultant stated that it is his feeling that the Judge does not want to rule on the case, and the constitutionality question has been set aside. To the remaining issue of the inequality of the fees, the Consultant presented figures that reflect the disparity in fees paid under various programs for the same procedures. However, it is the MSSNY position that this particular suit must be fought through the courts to a conclusion.

Equal Fee for Equal Training and Competency. Three distinguished members of the New York State Chapter of the American College of Radiology made a presentation to the Committee. Equal fee for equal training and competency is not relevant to radiology alone, but to many other specialties, especially under the Workers' Compensation Medical Fee Schedule as it is now administered. The representative of neurosurgery noted that at a national level there are ongoing discussions between national specialty societies and he believes that no action should be taken at this committee level until the deliberations of the national societies are concluded and decisions rendered. Therefore, this item was tabled until the national societies come to a definitive conclusion.

Para-Professionals in Medicine. The representative of Physical Medicine and Rehabilitation noted the efforts of the physical therapists in attempting to encroach on the field of physical medicine legislatively by securing passage of certain bills which, if broadly interpreted, would allow them to practice medicine without being licensed physicians. This is merely one facet of a wide problem concerning the intrusion of para-professionals into the field of medicine.

MSSNY Legislation Committee Liaison Representatives. Each specialty society was requested to submit the name of an advisor who would comment on bills which are being introduced into the Legislature pertaining to his specialty in order to formulate the official MSSNY position as to whether to support or oppose bills relating to medicine. The Division of Governmental Affairs would alert this representative to these bills as they are presented and the consideration of the specialty society position would help to formulate the MSSNY position.

Blue Cross Blue Shield Ambulatory Surgery Program. Blue Cross Blue Shield of Greater New York requested the Committee's cooperation in an evaluation by the individual specialty societies so that any procedures included in the report deemed to be inappropriate for ambulatory care be brought to the attention of the Director of the Division of Medical Services for transmission to the Blue Cross Blue Shield Advisory Committee before the implementation of their new program affecting outpatient ambulatory care surgery. At the meeting of July 10, 1980, it was requested that these be submitted in writing no later than August 15, 1980.

American College of Obstetrics & Gynecology and American Academy of Family Physicians Core Curriculum. The MSSNY Council at its meeting on September 6, 1979, referred the recommendation of approval of the ACOG-AAFP

Core Curriculum and Hospital Practice Privileges in Obstetrics-Gynecology for Family Physicians back to this Committee for reconsideration. The Council noted that there seems to be some disagreement concerning this core curriculum and it further felt that it was not the purview of the Council to either approve or disapprove actions taken by national specialty societies.

The representative of District II of ACOG noted that his chapter has expressed reservations concerning certain aspects of the core curriculum, but reemphasized that there is no basic conflict between ACOG and AAFP. The disagreement lies between District II of ACOG and its national society. Therefore, no further action was taken by this Committee.

In addition to the attendance at the formal meetings, individual members of the Committee have been asked to review material submitted to them with their respective specialty societies which require prompt attention. Many of the routine activities of the Division are devoted to the problems of an interspecialty character that the MSSNY and its physician members are faced with on an almost daily basis.

The Chairman of the Committee expresses his appreciation to the members of the Committee for the time and effort they have devoted to the problems dealt with. He also wishes to thank Robert J. O'Connor, M.D., Director of the Division of Medical Services, Mr. William D. Brainin, Associate Director, Max N. Howard, M.D., Consultant, and Mrs. Gladys B. Wunsch, Secretary, for their conscientious efforts and diligence.

Respectfully submitted,
Donald W. Hall, M.D., *Chairman*

APPENDIX "A"

Definition of Levels of Service

The draft furnished each member of the Committee was reviewed and agreed as follows:

Definitions

New Patient —	one new to the physician whose medical and administrative record needs to be established.
Established Patient —	one whose medical and administrative records have previously been initiated by the physician or group.
New Complaint —	a complaint unrelated to any condition currently under treatment by the same physician.

Levels of Service

New Patient or New Complaint

Comprehensive —	A level of service requiring an indepth evaluation of a patient, embodying the development of or complete examination of medical data, the recording of a chief complaint(s), present illness, family history, past medical history, personal history, system review, a complete physical examination, the ordering of appropriate diagnostic tests, and initiating treatment. Detailed and narrative report required.
Intermediate —	A level of service pertaining to the evaluation of a new condition, with a new diagnosis or management problem, that necessitates the obtaining and evaluation of pertinent history, and physical findings, the ordering of appropriate diagnostic tests and initiating treatment. A C-48 form is to be filed.
Established Patient —	Follow-up care.
Limited —	A level of service pertaining to the periodic evaluation of a problem including an interval history, examination, and therapeutic evaluation, including appropriate diagnostic tests and adjustment of therapy. A C-4 form is to be filed.
Extended —	A level of service requiring an unusual amount of effort or judgment including a detailed interval history, review of medical records, more than routine examination, evaluation of diagnosis and/or therapy. A narrative report is to be filed.

The applicability of a specific level of service is determined by what service the physician actually renders.

It was moved, seconded, and unanimously passed that the MSSNY Council request the WCB Chairman to adopt the levels of services applicable to office, hospital, and home visits, as stated above, in the WCB Medical Fee Schedule.

APPROVED

APPENDIX "B"
PATTERNS OF PRACTICE QUESTIONNAIRE

1. Name: (Please print) ______
2. Age: 25-40 ☐ 41-55 ☐ 56-65 ☐ over 65 ☐
3. County Where Practicing: ______ Office Zip Code: ______
4. Specialty: ______
5. Boards: Name ______ Certified Yes ☐ No ☐
Eligible Yes ☐ No ☐
6. Subspecialty Certified Yes ☐ No ☐
Boards: Name ______ Eligible Yes ☐ No ☐
7. Type of Practice: Solo ☐ P.C. ☐
Group ☐ P.C. ☐
Institutional: Name of Institution ______
Salaried: Full Time ______ Part Time Percentage ______
Other: (Define) ______
8. Medical School: (Name) ______ Graduated: (Year) ______
9. Formal Training Beyond Internship:
Residency ______ Years ______
Fellowship ______ Years ______
10. Percentage of Time in Teaching and Research: ______
11. Medicaid Percentage of Practice: ______
12. Summary of Office and Hospital Practice:*

	Usual Avg. Fee	Avg. No. Minutes per Patient	Avg. No. this Type Patients per Week
New Patient — First Office Visit Regional Examination			
New Patient — First Office Visit Complete P.E.			
Subsequent Office Visit			
Brief Examination — Established Patient			
Complete History and Physical — New or Established Patient			
Consultation & Report — any location (Referral from another M.D. with patient returned to referring M.D. for treatment)			
First Hospital Day — Work-up			
In-Hospital Care — 2-7 days			
In Hospital Care—subsequent days			

* Exclude all laboratory and X-ray charges.

13. Number of hours spent seeing patients in office — last full week in practice: ______
14. Number of patients seen in office — last full week in practice: ______

APPENDIX "C"
OVERHEAD BUSINESS EXPENSE REPORT

Specialty ______________________________

AREA PRACTICE (check)
a) Urban ______________
b) Suburban ______________
c) Rural ______________

GEOGRAPHIC (check)
a) Upstate ______________________
(North of Westchester)
b) Downstate ______________________
(Westchester & South)

TYPE OF PRACTICE (check)
a) Solo ______________
b) Group ______________
c) P.C. ______________
d) Salaried ______________
1. Full Time ______________
2. Part Time ______________%

GROSS INCOME .... Equals 100%

EXPENSES — PERCENTAGE OF GROSS ONLY
a) Taxes on business & business property .... ______________
b) Rent on business property .... ______________
c) Repairs .... ______________
d) Salaries & Wages (exclude pmts. to self) .... ______________
e) Insurance:
  1. Liability — Malpractice .... ______________
  2. Other Business .... ______________
f) Legal & Professional Fees .... ______________

OTHER BUSINESS EXPENSES
1. Drug & Medical Supplies .... ______________
2. Utilities (Telephone, Electric, etc.) .... ______________
3. Leasing Equipment .... ______________
4. Total Automobile Expenses .... ______________
5. Other Transportation Expenses .... ______________
6. Professional Society Dues .... ______________
7. Professional Meeting Expenses .... ______________
8. Others (specify) ______________________________
____
____

Dollar amounts may be used in place of percentages if desired.

◆

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Interspecialty Committee be filed for information.

⟹ . . . *The report of the Interspecialty Committee was* **FILED FOR INFORMATION** . . .

MEDICAL CARE INSURANCE

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Medical Care Insurance are as follows:

H. Gregory Thorsell, M.D., *Chairman*	Chautauqua
Paulino S. Cruz, M.D.	Suffolk
Ronald A. Housman, M.D.	Suffolk
Richard A. Hughes, M.D.	Warren
Monte Malach, M.D.	Kings
Daniel H. Webster, M.D.	Clinton
Leonard S. Weiss, M.D.	Nassau
*Valerie Ellis	Monroe

The Committee on Medical Care Insurance held one formal meeting since the last annual report and the following matters were discussed:

Resolution 79-6, Creation of a Medicaid Committee of the Medical Society of the State of New York

Introduced by Bronx County Medical Society

Resolved, That the Medical Society of the State of New York urge each county medical society to form a Medicaid or Medical Care Insurance Committee to deal with the Medicaid problems of its members and to foster and defend the rights of the indigent to adequate medical care; and be it further

Resolved, That such committees establish lines of communication with the Medical Society of the State of New

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* Medical Student

York Medical Care Insurance Committee and seek the latter's assistance when appropriate.

This substitute resolution was adopted in lieu of Resolution 79-6 as originally submitted. The Council on January 17, 1980, discussed the intent of the House of Delegates in adopting substitute Resolution 79-6. A memorandum was sent to all county medical societies informing them of the directive of the House and urging them to form such committees in their counties.

A Statewide Medicaid Committee at this time would be ineffective because it is now a fragmented process, administered in 54 counties by local Commissioners of Social Services, who have the sole responsibility for the administration of Title XIX programs in their particular areas. In 8 counties the Medicaid program is administered by the State Department of Social Services, and the local commissioners are responsible merely for eligibility.

Until the Medicaid Management Information System (MMIS) is completely put into effect throughout the State, no committee at the State Society level could adequately handle the problems involved in 55 different programs.

To bring the collective strength of the State Society to bear on the involved governmental agencies, the scope of the MSSNY Ad Hoc Committee on Medicaid has been expanded to deal not only with the uniform reimbursement forms, but also with universal coding and an update of fees for Medicaid services.

The Chairman of the Commission on Medical Services and of the Ad Hoc Committee on Medicaid has had numerous meetings with the representatives of the New York State Department of Social Services, Bureau of Medical Assistance Systems Development New York State Department of Health, the Medicaid Management Information System, as well as the various counties where the new MMIS has been implemented. On October 11, 1979, a more practical uniform health claim form was arrived at which eliminated a number of the more onerous questions originally included in the form. The new form was presented to the Executive Committee, who recommended that it be approved by the Council. The Council concurred and a letter was sent to all county medical societies requesting them to review the form and compare it with the original form and advise us if they approve the action of the State Society. A majority of the responses were in the affirmative.

The Medical Care Insurance Committee went on record in commending Dr. O'Keeffe and the Ad Hoc Committee for their efforts in developing a more simplified form for provider reimbursement under the MMIS. Although there is no definitive date for implementation of the form, a blind schedule has been developed which reflects the preparation of new provider manuals and the competitive bids for the printing of the new form, as well as the training programs necessary to retrain clerical personnel.

Resolution 79-42, Medicaid Fee Schedule

Introduced by Broome County Medical Society

Resolved, That the Medical Society of the State of New York strongly support the revision of the Medicaid Fee Schedule to a level of reimbursement that is equivalent to the usual, customary, and prevailing fees that are in existence in this State in the year 1979, and strongly urge that these fee schedules be reviewed and revised on an annual basis (as is done with Medicare reimbursement schedules); and be it further

Resolved, That the House of Delegates direct that all necessary steps be taken immediately on behalf of the Medical Society of the State of New York to achieve these objectives.

This resolution was adopted by the House of Delegates in lieu of Resolutions 79-15 and 79-33.

In response to Resolution 79-42, the Council on November 15, 1979, voted approval for the Chairman of the Commission on Medical Services and the Ad Hoc Committee on Medicaid to negotiate with the appropriate authorities for the implementation of an increase in fees payable under the Title XIX program (Medicaid). MSSNY representatives met on February 7, 1980, with the Commissioner of the NYS Department of Social Services, the Executive Director of the Office of Health Systems Management, and the Chief Examiner of the NYS Office of the Budget in an initial exploratory meeting in our attempts to secure increases in Medicaid reimbursements, reimbursements which have not increased since 1966.

Based on the fact that Title XIX recipients are receiving treatment in emergency rooms and outpatient clinics of hospitals at costs five to six times what the care would cost in a private physician's office, we requested that the Medicaid Fee Schedule be eliminated and physicians receive payment under the Title XIX program on the basis of usual, customary, and reasonable fees. When this was rejected the MSSNY asked that the first office visit for a general practitioner or specialist be increased 100% to bring the fees partially in line with the fees paid under Workers' Compensation and other programs. This and other alternative programs were discussed but rejected as being too costly. A proposed 20% increase in certain limited code numbers in the physician based primary care services had been submitted by the Office of Health Systems Management to the Legislature and MSSNY found this unacceptable. However, our legislative representatives were urged to preserve this very limited proposed increase and also to attempt to secure additional funding to allow Medicaid fees for physicians to rise to acceptable levels.

Although this first exploratory meeting was not as productive as MSSNY desired, it is hoped that periodic meetings can be arranged so that both government and organized medicine can interface with each other towards a possible resolution of existing problems which would lead ultimately to better care for Title XIX recipients and secure additional physician participation in the Medicaid program so that the system would not be a second-class program.

The Chairman of the Commission on Medical Services addressed a communication to the NYS Senate and Assembly Health Committees requesting dialog relative to increasing Medicaid reimbursement. (See Appendix "A.") This has resulted in a meeting in Albany with the NYS Senate Health Committee on May 13, 1980, at which the difficulties experienced by health providers due to the inordinate paper work and cumbersome forms, delay in payment, delay in certification, as well as low reimbursement, were brought to their attention. An additional meeting with the Chairman of the Assembly Health Committee on May 27, 1980, resulted in a commitment by the Chairman to work as diligently and expeditiously as possible to secure adequate reimbursement for physicians who render services under the Title XIX program.

Resolution 79-41, Time Limitation for Processing Medical Claims

Introduced by Broome County Medical Society

Resolved, That the Medical Society of the State of New York seek a change in the time limitations for processing medical claims under Title XIX to those that apply to Title XVIII (27 months); and be it further

Resolved, That the Medical Society of the State of New York seek the implementation of this change by appropriate communications with the necessary Federal and State governmental agencies.

This substitute resolution was adopted in lieu of Resolution 79-41 as originally submitted. A letter was sent to the Commissioner of the Department of Social Services requesting implementation of the program in a manner similar to Title XVIII. A copy of Commissioner Blum's reply, denying the objective of Resolution 79-41 is included with this report. (See Appendix "B.")

Blue Shield of Western New York, Inc., as Medicare Part-B Fiscal Intermediary. On the basis of competitive bidding, Blue Shield of Western New York, Inc., has taken over the Medicare-B contract for the 45 counties in Upstate New York, formerly shared with Metropolitan Life Insurance Company and Genesee Valley Medical Care, Inc., as of July 1, 1979. The intent is to bring the area formerly served by Metropolitan into line with the rest of the Upstate area to establish a single prevailing charge screen for all specialties. This consolidation will result in some physicians being paid less in 1980 than in 1979. MSSNY protested and argued that there should be no reimbursement reduction, but that the same no roll-back provision mandated by Congress to prevent reduction below 1975 charge screens should be applied here. (See reports to counties from G. Rehmi Denton, M.D. — Appendices "C" and "D.")

Establishment of Ombudsman Service for Members. Upon the recommendation of G. Rehmi Denton, M.D., President of the MSSNY, the Council on January 17, 1980, approved a new program to help physicians who experience frustration and consternation in their relationships with third party carriers relative to undue delays, denial, or reimbursement, etc. Criteria has been established so that a physician can refer such problems through his local county medical society to the State Society. (See Appendix "E.")

Hospital and Nursing Home Visits Under Medicare. This matter was reported in our last annual report, however a new recommendation was made to the Council on January 17, 1980, that medical staff bylaws be modified to adjust the required frequency of visits by the physician to patients once they are physician certified as transferrable to a skilled nursing facility or nursing home to conform to the number of visits to those recommended by federal guidelines as a minimum.

The Council has postponed action on this recommendation pending the receipt of further information from the Hospital Association of New York State. To date this information has not been received.

Universal Health Claim Form. The Superintendent of Insurance accepted a universal health claim form for commercial carriers based on the AMA form. Efforts are now being made that those carriers excluded under the Superintendent's order (IX-C carriers) will be included, so that one form can be used for all insurance claims.

While the original draft of the proposal merely deleted the exemption line for Article IX-C Corporations, the bill was amended in both Houses before emerging from committee, to state in effect that on or before January 1, 1981, corporations operating under that article shall be required to use standard claim forms as established by the Superintendent of Insurance.

There is also ongoing dialog between the AMA and the Health Care Financing Administration (HCFA) to use the universal health claim form for both Title XVIII and Title XIX programs.

Universal Coding System. The confusing different coding systems developed by the various insurance carriers cause undue hardships on physicians and their staffs in having to record differing codes for different insurance programs for the same procedure. The Regional Medicare Director has informed us that ongoing discussions at the national level between the AMA and HCFA concerning the universal coding system based on CPT-4 has been concluded successfully.

Assignment of Health Insurance Benefits to Physicians. The problem of the refusal of Article IX-C carriers to accept assignment of benefits from nonparticipating physicians was investigated. The decision of the Superintendent of Insurance reflected the fact that IX-C carriers, by virtue of their multiple contracts, enroll subscribers whose income falls below a certain level. Under these circumstances, the participating physician is obligated to accept as payment in full the amount determined by the plan. Consequently, a subscriber is not obligated to pay any additional amount out of pocket. However, a nonparticipating physician is free to charge a subscriber any amount and would have no obligation to accept the stated allowance as payment in full. If physicians, by use of the authorization from the patient, could obtain direct payment by the plan, there would be little or no reason to be a participating physician and these low income subscribers would be denied the protection of paid in full benefits.

National Health Insurance. The Committee members received copies of summaries of the two national health programs being considered at the federal level, as well as copies of the MSSNY position paper on National Health Insurance. However, the Committee on Socioeconomics evaluated these as an agenda item and made recommendations to the Council. (See Annual Report of the Committee on Socioeconomics.)

Premier Physician Care Coverage. The Committee was brought up to date on the developments of the Premier Physician Care Coverage plan being implemented by Blue Cross Blue Shield of Greater New York, utilizing first dollar coverage for services rendered based on a pattern of usual, customary, and reasonable fees prevalent in the downstate area. Participation in this plan had been refused by the anesthesiologists, who feel that the conversion factor for anesthesiology does not reflect their usual, customary, and reasonable patterns. Blue Cross Blue Shield decided to implement this plan without anesthesiology, which could be added as a rider supplement. Acceptance of this plan by both subscribers and physicians will be evaluated at a later date.

Hospital Review and Planning Council Meetings. The President of the MSSNY had noted that there is no official physician member of our Society on the Hospital Review and Planning Council, therefore, he designated that a member of the Division of Medical Services attend the meetings and monitor the activities. To date the Associate Director has attended these meetings on a monthly basis.

The Chairman of the Medical Care Insurance Committee expresses his appreciation to the members of the Committee for the time and effort they have devoted to the problems dealt with. He also wishes to thank Robert J. O'Connor, M.D., Director of the Division of Medical Services, Mr. William D. Brainin, Associate Director, and Mrs. Gladys Wunsch, Secretary, for their conscientious efforts and diligence.

Respectfully submitted,

H. Gregory Thorsell, M.D., *Chairman*

APPENDIX "A"
RESOLUTION 79-42

COMMUNICATION TO THE NEW YORK STATE SENATE AND ASSEMBLY HEALTH COMMITTEES

April 11, 1980

As chairman of the Commission of Medical Services of the Medical Society of the State of New York, which represents 61 county medical societies and more than 26,000 physicians in the State, I am writing to bring to your attention the miserable condition into which the Medicaid (Title 19) Program has fallen. This situation seriously affects both the health care of the public and its cost to the State and municipalities.

The physicians of the Medical Society of the State of New York have always offered their services in meaningful programs for the improvement of health care delivery for all. However, over the years there has been a gradual withdrawal by many of our physicians from participation in Medicaid. The reasons are manifold, but three of the most pressing are:

The inefficiency of the program.
The excessive paperwork.
The reimbursement.

With today's economy and the high inflation rate, there is an ever-increasing number of people applying for Medicaid. At the same time, there has been an ever-increasing time lag in the screening of the patients, often resulting in undue and unnecessary hardships.

In certain locations applications take as long as two or three months. The determination of eligibility lies with the commissioners of the county departments of social services, who often employ outdated, outmoded methods of determining eligibility and often require voluminous evidence from individuals before eligibility can be determined.

I would appreciate your reviewing the enclosed form, which is required of physicians participating in the Medicaid program by the Medicaid Management Information Systems (MMIS). The complexity of the form and the number of items makes recorders of physicians rather than deliverers of health care. We know that much of the information requested has nothing to do with health care or reimbursement but is used in whatever mysterious ways government wishes to utilize it.

We believe the State is making a twofold error in the reimbursement of physicians for services rendered. We wish you to fully understand our consternation.

In 1966, at the inception of the Medicaid Program, a physician received $7.20 for an initial office visit. At the time, this fee was about that of the Workers' Compensation program. The Medicaid fee in 1980 is still $7.20 and the Workers' Compensation fee for comparable service has risen to $15.84. Still less than most physicians' usual and customary fee. When you compare actual physicians' fees with the Medicaid fee of $7.20 you can see how ridiculous the program has become relative to physician reimbursement.

The other side of the coin is this: the State contends that there are areas where physicians do not participate and Title 19 recipients are limited to receiving treatment in the hospital emergency room. The average fee in the emergency room ranges from $46.00 to $63.00 and the Governor is now contemplating a 14% increase on that base. Since the majority of the Title 19 recipients who go to these facilities are treated on an outpatient basis, it is our contention that they could be treated better, faster, and more economically in a private physician's office — if the reimbursement to the physician were more in keeping with today's economy.

The Governor has budgeted a 20% increase in certain primary care services which will bring the initial office fee to $9.50, still far below not only the physician's usual, customary, and reasonable fee but even below Workers' Compensation fees. This disparity is in direct conflict with *current federal regulations* that require State Medicaid plans to assure high quality care (42 CFR 440-26) on a Statewide basis (42 CFR 431-50) with *payments sufficient to enlist enough providers so that services are available to recipients at least to the extent that identical services are available to the general population* (42 CFR 447-204). These regulations are intended to encourage physicians to participate in Medicaid. Obviously, their purpose has not been met. Also, federal regulations require that every state Medicaid program have a medical care advisory committee (MCAC) composed of professionals and consumers. Although MCACs have been a requirement of the Medicaid Law for many years, New York State's compliance leaves much to be desired.

I hope I have left no doubt that the problem is serious. I think it calls for prompt, intensive examination and concerted action. The Medical Society of the State of New York is ready to offer its good offices to meet with you or with any interested party to address this basic problem and to correct the inequities and weaknesses in the present program in the best interest of the State and its people.

We, at the State level, would like to meet with you and other members of your committee, not only to discuss the seriousness of this problem, but to seek to make Title 19 the model for the rest of the country, rather than the pitiful program it is now.

I shall appreciate an early reply and an opportunity to meet with you and/or your committee.

Sincerely yours,

Daniel F. O'Keeffe, M.D., *Chairman*
Commission on Medical Services

NYS MEDICAL ASSISTANCE (TITLE XIX) PROGRAM CLAIM FORM A

PROVIDER ID NUMBER

INVOICE NUMBER	BILLING DATE MO | DAY | YR	GROUP ID NUMBER	LOCA TOR CODE	CLINIC SPECIALTY CODE	CATEGORY OF SERVICE	NO OF ATTACH MENTS	ONLY TO BE USED TO ADJUST OR VOID A PAID CLAIM CODE	ORIGINAL CLAIM REFERENCE NUMBER	

RECIPIENT ID NUMBER CASE | LINE	YR OF BIRTH	SEX 1 | 2	RECIPIENT NAME LAST | FIRST	OFFICE ACCOUNT NUMBER (OPTIONAL)	OFFICE USE ONLY

CODING METHOD DIAG | PROC	DIAGNOSIS CODE PRIMARY | SECONDARY	EMER-GENCY? 1	HANDICAPPED CHILDREN PROGRAM? 2	POSSIBLE DISABILITY? 3	FAMILY PLANNING? 4	ACCIDENT CODE	PATIENT STATUS CODE	CHAP REFERRAL CODE	RECIPIENT OTHER INSURANCE CODE	ABORTION/ STERILIZA TION CODE	PRIOR APPROVAL NUMBER		

PLACE OF SERVICE CODE | ADDRESS	SERVICE PROVIDER ID/LICENSE NO | TYPE | NAME	ORDERING/REFERRING PROVIDER ID/LICENSE NO | TYPE | NAME

SHARED HEALTH FACILITY ONLY ▶ SIGNATURE | DIAGNOSIS

LINE	DATE OF SERVICE MO	DAY	YR	PROCEDURE CODE	PROCEDURE DESCRIPTION	TIMES PER-FOR-MED	DENTAL TOOTH QUAD	DENTAL SURFACE	LAB POSITIVE PATH OLOGY?	AMOUNT CHARGED	MEDICARE APPROVED	MEDICARE PAID	OTHER INSURANCE PAID	BALANCE DUE
1										$ •	$ •	$ •	$ •	$ •
2										•	•	•	•	•
3										•	•	•	•	•
4										•	•	•	•	•
5										•	•	•	•	•
6										•	•	•	•	•
7										•	•	•	•	•
8										•	•	•	•	•
9										•	•	•	•	•
							TOTALS ▶			$ •	$ •	$ •	$ •	$ •

Payee certifies that: the care, services and supplies itemized have been furnished, the amounts listed are due and, except as noted, no part thereof has been paid; payment of fees made in accordance with established schedules is accepted as payment in full; taxes from which the State is exempt are excluded; there has been compliance with the Federal Civil Rights Act of 1964 and with section 504 of the Federal Rehabilitation Act of 1973 as amended, which forbid discrimination on the basis of race, color, national origin, handicap, age, sex, and religion; such records as are necessary to disclose fully the extent of care, services and supplies provided to individuals under the New York State Medical Assistance Program will be kept and promptly furnished upon request to the local or State Departments of Social Services. Payee understands that payment and satisfaction of this claim will be from Federal, State and local public funds and that payee may be prosecuted under applicable Federal and State laws for any false claims, statements or documents or concealment of a material fact. The State of New York, through its fiscal agent or otherwise, is hereby authorized to (1) make administrative corrections to the claim to enable its automated processing, subject to reversal by payee and (2) accept as original evidence of care, services and supplies furnished the claim data on this form.

SIGNATURE

DATE MO | DAY | YR

APPENDIX "B"

Resolution 79-41

NEW YORK STATE
DEPARTMENT OF SOCIAL SERVICES
Barbara B. Blum
Commissioner

April 24, 1980

Dear Dr. Fineberg:

Thank you for your recent letter informing me of the resolution pertaining to timely submission of claims approved by the House of Delegates of the Medical Society of the State of New York at its meeting on September 16–20, 1979. I understand that the House of Delegates recommends altering current time limitations for submission of claims under Title XIX program services in order to have them conform to the claim submission schedule for the Title XVIII Program.

Upon review of the current circumstances and those under which the present bill submission limitations for the New York State Medical Assistance Program were originally promulgated, I have determined that it would be contrary to the program and fiscal objectives of the New York State Department of Social Services to change to the Title XVIII requirements.

There are certain monitoring functions of the State Medical Assistance Plan which dictate the need for timely submission of bills. The Medicaid Management Information System (MMIS) was implemented to provide program controls as well as to expedite the claims processing function. To this end reports which provide information needed for the management of the program are generated on a monthly/quarterly and annual basis. In order to comply with a State mandate to control overall health related costs, more timely information is needed to assure proper program direction and appropriate utilization of services. Much of this information is obtained from Medicaid provider billings, allowing extended periods for submission of bills could mean decisions would be made based on dated or incomplete information. This is unacceptable in a program as large and costly as Medicaid.

I appreciate the interest which the House of Delegates of the Medical Society of the State of New York has taken in the area of claims submission and look forward to continuing our mutual commitment to, and cooperative efforts toward, assuring the finest health care for all of our citizens.

Sincerely,

Barbara B. Blum
Commissioner

APPENDIX "C"

PROGRESS REPORT FROM THE OFFICE OF THE PRESIDENT

RE: BLUE SHIELD OF WESTERN NEW YORK AS MEDICARE FISCAL INTERMEDIARY FOR THE 45 UPSTATE COUNTIES

The MSSNY was alerted to the problems attendant to the BSWNY implementing their system of both coding and prevailing charges for Medicare reimbursement after their assumption of their contract as Medicare fiscal intermediary for upstate New York on August 1, 1979.

When the corporation directive was received by physician providers the MSSNY addressed inquiries to the official of the Department of Health, Education, and Welfare — Region II, which is responsible for the area. Concurrently we alerted the AMA to the problem in the affected counties.

Investigation has revealed that the directive issued by the Department of Health, Education, and Welfare — Region II is at variance with the intent of HCFA and its national office in Baltimore. We at the State Society level have been engaged in ongoing discussions with the corporation fiscal intermediary as well as the governmental officials in order to clarify whether the regional directive takes precedence over the national interpretation.

We fully realize the consternation on the part of our physician members to the interpretation and implementation of this program by BSWNY and have notified the Regional Medicare Director for Region II that if their directive to the corporation is not promptly rescinded, the MSSNY will take legal steps to secure an injunction to prevent the implementation of the program as it is now proposed.

Realizing the chaotic conditions which exist due to the computer snarls which have accompanied the corporation's takeover of the 45 counties, at the present time there is no way that the contract that exists between BSWNY and the federal government can be abrogated. We believe the counties should know that HEW has given the corporation until January 1, 1980, to eliminate the problems which exist at the present time. The failure of the corporation to resolve these problems, which are mostly of a mechanical and educational nature, will result in the noncompliance of the corporation according to the laws of the Title XVIII program, and will incur penalties that will be assessed against the corporation daily for noncompliance.

Therefore, you as President of your local County Medical Society, should ask your physician members to record and note all problems financial or otherwise that are occurring in the physicians' relationships with the corporation so that these can be brought to the attention of the federal authorities to prove ineffective operation and noncompliance with federal mandates. These records can be forwarded to the Division of Medical Services of the MSSNY.

We want to assure the respective county medical societies and their members that the MSSNY intends to pursue this matter to the fullest extent, including legal action, to insure that the implementation by this fiscal Medicare intermediary will not result in reduced reimbursement and inordinate delays for our members.

G. Rehmi Denton, M.D., *President*

11-19-79

APPENDIX "D"

PROGRESS REPORT FROM THE OFFICE OF THE PRESIDENT — II

RE: BLUE SHIELD OF WESTERN NEW YORK AS MEDICARE FISCAL INTERMEDIARY FOR THE 45 UPSTATE COUNTIES UPDATE

As promised in our last report of November 19, 1979, we have had ongoing contact with the Health Care Financing Administration of the Department of Health, Education, and Welfare Region II, in an attempt to ameliorate the myriad problems incurred by the assumption by Blue Shield of Western New York of the contract to be the Medicare Fiscal Intermediary for the 45 upstate counties.

I am pleased to report that as a result of our efforts a meeting was held in Washington on January 23, 1980, at the offices of HCFA, which was chaired by Dr. Roger Egeburg, Director of the Office of Professional and Scientific Affairs, with representatives of his staff and Ms. Jacqueline Wilson, Medicare Director for HEW Region II, and members of her staff, as well as representatives of Blue Shield of Western New York. A frank and candid discussion ensued and the entire program to date was reviewed.

We illustrated by specific examples the dramatic reductions in prevailing fee levels which resulted from the merging of specialties mandated by the HEW directive and reemphasized our request that the "hold harmless" provisions be invoked so that *no* physician will suffer a reduction in his prevailing fee profile.

We are pleased to report that this concept was received favorably by the HCFA officials and Dr. Egeberg stated that he would bring this to the immediate attention of Mr. Leonard Schaeffer, HCFA Administrator for his consideration and review.

In addition we further reviewed the many problems attendant to the implementation of the program and were assured by all concerned that effective steps have already been taken by the fiscal intermediary that should result in resolving the technical difficulties which occurred upon their assumption of the contract from the previous carrier.

We now await a decision by the Administrator of HCFA and will inform you as soon as it is made available to our Society.

I must at this time publicly thank the AMA Washington staff and particularly Ms. Patricia McGuire for the help extended to our Society in making the arrangements for the meeting possible.

G. Rehmi Denton, M.D., *President*

1-25-80

APPENDIX "E"

OMBUDSMAN SERVICE FOR MSSNY MEMBERS

Every year hundreds of thousands of claim forms for reimbursement for medical services rendered by physicians are filed with third party payors. It is inevitable that many reimbursement problems can and do arise, such problems being created by a combination of factors including:

a. Physician's technical error in submitting claim.
b. Carrier error in processing submitted claim.
c. Computer malfunctioning.
d. Multiplicity of claim forms (some complicated) with variable code numbers.
e. Personnel errors arising both in the physician's office and in the processing procedure of the third party carrier.
f. Failure of physicians to thoroughly understand the multiplicity of the rules and regulations promulgated by third party carriers.
g. The inability of the carrier to interpret the handwriting of the physician submitting the claim.
h. The challenging of a claim for various reasons by the carrier.

Most of these problems can be and are solved quickly by the individual physician following the prescribed procedure as outlined by a particular carrier. If the problem cannot be readily resolved by the individual physician, the resources of the county medical society should be utilized. It is a primary responsibility and prerogative of the local medical society to assist its members whenever possible. A third source of help is through the Field Representatives of the MSSNY.

There are times when it would not be feasible for physicians with individual problems to refer them through either the local county medical society or the field representatives, primarily because the respective county societies do not have the staff nor the resources available to properly pursue problems. The individual physician could refer his particular problem directly to the MSSNY and its Division of Medical Services.

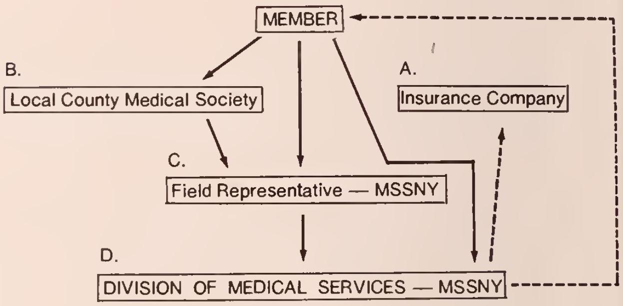
The MSSNY, through its Division of Medical Services, will then step in to see if the problem can be resolved by its intervention with the particular carrier. Frequently the MSSNY can be successful after all other attempts have failed, but it should be understood that the desire of the MSSNY to help its members does not constitute a guarantee that attempts toward solution will always be effective. There will be situations that cannot be satisfactorily resolved in spite of the lines of communication open to the MSSNY, however, we are willing to pursue each complaint to its fullest.

When requesting assistance from the MSSNY address all communications in writing to the Director, Division of Medical Services, Medical Society of the State of New York, 420 Lakeville Road, Lake Success, NY 11042, and include a detailed description of the problem as well as all correspondence between the physician, local medical society, field representatives, and carriers.

To properly expedite procedure, the following flow diagram is suggested:

MEMBER WITH COMPLAINT

A. Notice to Insurance Company
B. No results — Referral to Committee of local County Medical Society
C. No results — Referral to Field Representatives of MSSNY
D. No results — Referral to Division of Medical Services of MSSNY


MEMBER
B.
Local County Medical Society
A.
Insurance Company
C.
Field Representative — MSSNY
D.
DIVISION OF MEDICAL SERVICES — MSSNY

E. DIVISION OF MEDICAL SERVICES — Contact Insurance Carrier
F. DIVISION OF MEDICAL SERVICES — Notify physician complainant re actions and results

2-1-80

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⟹ *Report of the Reference Committee on Medical Services.* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Committee on Medical Care Insurance be filed for information.

⟹ . . . *The report of the Committee on Medical Care Insurance was* **FILED FOR INFORMATION** . . .

PROFESSIONAL STANDARDS REVIEW ORGANIZATIONS

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on PSRO are as follows:

Stanley I. Fishman, M.D., *Chairman*	Kings
Arthur D. Hengerer, M.D., *Vice-Chairman*	Albany
Paul Jenks, M.D.	Seneca
John T. Prior, M.D.	Onondaga
Neville W. Harper, M.D.	Oneida
John E. Glennon, M.D.	Washington
Franklyn C. Hayford, M.D.	Schenectady
Allen D. Levine, M.D.	Orange
Daniel A. Sherber, M.D.	Westchester
Lionel Zemek, M.D.	Rockland
Allen H. Postel, M.D.	New York
William A. Schwarz, M.D.	Richmond
Adrian C. Lamos, M.D.	Kings
Morton Kurtz, M.D.	Queens
George B. Pollock, M.D.	Nassau
Anthony Altieri, M.D.	The Bronx
Vincent O'Brien, M.D.	Suffolk
*Arthur Perry	Albany

Since its last report to the House of Delegates, the Committee on PSRO held two meetings. The following matters were discussed.

Update on Demonstration Project. The Committee noted the legal action taken by the Greater New York Hospital Association concerning the removal of the on-site inspection teams that had been established based on the Demonstration Project. At this point the State has no on-site teams at any of the hospitals. However, the Office of Health Systems Management (OHSM) stated that it will appeal the decision To date it is not known whether the Department of Health, Education, and Welfare will join in and support such an appeal. This Committee will be apprised of any future actions relating to the Demonstration Project. There has been no further action on either the Federal or State level relative to reinstituting the Demonstration Project.

Monitoring Program by the Office of Health Systems Management (OHSM). The Office of Health Systems Management (OHSM) has implemented intensive concurrent review in The Bronx and Brooklyn PSRO area wherein they have acted based on pre MOU data as well as skewed results relative to certain hospitals with a high proportion of Medicaid patients. The OHSM is doing retrospective review in those areas based on the concurrent review which the PSROs had already done. Questions were raised by members of this Committee pertaining to the intent of the State Office of Health Systems Management in going ahead with these reviews when a request had been made by the respective PSROs to delay the implementation for 3 months so that more accurate data would be available.

The Chairman reported that this has been of great concern to the PSROs involved as well as the Greater New York Hospital Association and HANYS, and that a determination was being made concerning the implementation of a suit to prevent this type of review by the Office of Health Systems Management.

Although the OHSM does have the right to monitor and there is in the law nothing that would support the PSROs objections to such monitoring, the monitoring program was part of an MOU that was signed by the State and the individual PSROs. Since the original MOU has terminated the monitoring program this Committee feels it is now open for renegotiations. Therefore, the Committee requested that Legal Counsel of the MSSNY investigate and report a legal interpretation relative to the problem.

Update on the Statewide Planning and Research Cooperative System (SPARCS). There is a basic conflict between the federal government and the State concerning the methodology of securing information from the data system. Originally the Commissioner of Health of the State of New York felt they had the sole right to govern the release of any information since they had established the system and had helped finance it. Although the federal government through the Health Care Financing Administration (HCFA) still holds that position, the State government has now made a 180° turn and supports the concept enunciated by the PSROs that any data requested by any agency must go through the Data Protection Review Board. This difference of opinion becomes important since the SPARCS program is contemplated as a nationwide program which, at the present time, has 4 or 5 states undergoing implementation. The stipulation from the federal government to the states is that it (the Federal Government) has the right to access of all information without review. The Chief Medical Officer and Deputy Director in the State Department of Health stated that although we do not like to see HEW in an adversary role, his Office of Health Systems Management is prepared to give up federal funding to insure confidentiality and privacy concerning data release. Agreement was subsequently reached between the Department of Health, Education, and Welfare (HEW) and OHSM that all requests for data must go through the Data Protection Review Board (DPRB). The MSSNY representative to the DPRB reported that the first organizational meeting had taken place and that proposed bylaws were considered.

The CHIP Committee (Council on Hospital Information Policy), which acts as an Advisory Committee to SPARCS recommended that the ongoing negotiations with the Committee have resulted in securing two physician members from the Statewide PSR Council who will sit on this Committee with the representatives of Blue Cross Blue Shield, etc. The new regulations concerning composition of the Data Protection Review Board includes one additional physician member from the medical societies.

Judicial Action Re Confidentiality. This Committee was brought up to date concerning the actions of the Washington, D.C., PSRO in appealing the decision of Judge Gesell pertaining to the release of confidential data to the consumer group directed by Dr. Sidney Wolfe and Ralph Nader. This decision does not in any way affect all PSROs, but does have immense significance if it is upheld. (See Appendix "A.")

The Council approved, on January 17, 1980, the recommendation that the Medical Society of the State of New York go on record in supporting the action taken by the American Association of Professional Standards Review Organizations (AAPSRO) in opposing the release of any PSRO confidential data to any consumer group.

It was noted that legislation to exempt PSROs from the

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* Medical Student

Freedom of Information Act (FOIA) has been drafted by the American Medical Association and other concerned parties and introduced in both Houses of Congress. These bills appear to be moving slowly, however, and are not expected to be passed in the 96th Congress.

Revision of Part 709 — Acute Care Bed Methodology for New York State. The MSSNY representative on the Committee for Revision of Part 709 — Acute Care Bed Methodology for New York State, gave an update of the Committee's activities. The charge to the Committee is the study of the distribution of acute care beds in the State of New York over a five year period. The MSSNY representative noted the difficulties encountered by this Committee in determining what the bed needs in this State would be in 1982 based on 1977 figures. The Committee is working on all variables, e.g., illegal aliens, patients who are marginally above Medicaid participation but still unable to pay hospital bills, etc. Surveys will be needed in order to see which acute care beds can be decertified to long term care beds. This Committee is hard at work attempting to come up with a methodology which could determine the future needs of New York State. Noting that planning per se in the health care area is still in its infancy, various agencies such as the Office of Health Systems Management and the Health Systems Agency (HSA), and other planning groups are hard at work in developing proper criteria.

Unfortunately, the input from the MSSNY representative to the Task Force has resulted, in his opinion, in a wasted effort in presenting the viewpoints of the Medical Society of the State of New York. Therefore, a recommendation was made by the representative that the MSSNY withdraw as a participant from the Task Force and request that the name of the Medical Society of the State of New York be removed from the document. We are in receipt of a letter from the Executive Vice-President of MSSNY to the Director of OHSM. (See Appendix "B.")

Advisory Groups to Individual PSROs. There is an advisory group of ancillary professionals to the New York Statewide Professional Standards Review Council, Inc., and requests have been made to individual PSROs that advisory groups be formed so that views and opinions of ancillary professional groups can be obtained by the PSRO medical boards in order to render reasoned opinions relative to the total delivery of health care. The interest of such groups would be very beneficial in soliciting support for PSRO objectives and goals.

The Council approved, on March 20, 1979, the recommendation of the Committee that each PSRO establish advisory groups of competent, knowledgeable ancillary professionals and that other concerned parties including consumers interested in the delivery of health care should be included so that this group could act in concert with the Board of Directors of the local PSRO to formulate positions and opinions in the health care field.

MSSNY Charge to the PSRO Committee. The Chairman reviewed the charge of the MSSNY to the PSRO Committee. This was brought about by this Committee's actions in the past in having the executive directors of the individual PSROs invited to every meeting of this Committee. It was noted that the executive directors have monthly meetings which are not open to the physician members and a poll of the members of this Committee indicated that executive directors should be asked to attend by invitation only when topics for discussion warrant it.

A recommendation was made that meetings of the Professional Standards Review Committee of the MSSNY should be held specifically for those physicians who are members of the Committee and that the executive directors are to be invited when warranted, but that at least one meeting per year should be a joint meeting between the PSRO Committee, the Executive Directors of the PSROs, and the New York Statewide Professional Standards Review Council, Inc.

In addition, to the above, staff attended and participated in a number of meetings involving the New York Statewide Professional Standards Review Council, Inc., and the Office of Health Systems Management. Other matters concerning PSRO activities were dealt with on an almost daily basis, with frequent communication with the committee chairman.

The Chairman of the Committee expresses his appreciation to the members of the Committee for the time and effort they have devoted to the problems dealt with. He also wishes to thank Robert J. O'Connor, M.D., Director of the Division of Medical Services, Mr. William D. Brainin, Associate Director, and Mrs. Jeanette Palucci, Secretary, for their conscientious efforts and diligence.

Respectfully submitted,

Stanley I. Fishman, M.D., *Chairman*

APPENDIX "A"

Organized consumerism requested specific PSRO data from the Washington, D.C. PSRO (National Capital Foundation). This request was made by the Ralph Nader Public Citizens' Health Research Group.

On April 25, 1978, Federal Judge Gerhardt Gesell ruled in favor of Ralph Nader's Public Citizens' Health Research Group, when he determined that PSROs are governmental agencies for purposes of the Freedom of Information Act (FOIA).

Judge Gesell indicated that relief from his ruling should be sought by legislative action, if indeed PSROs should be excluded from the FOIA. Such action is now being contemplated at the Federal level.

The National Capital Foundation, the Washington, D.C. PSRO, has obtained an open ended injunction preventing the dissemination of any information until all appeals are completed or legislation implemented.

If the action of Judge Gesell is upheld this may bring an end to any useful quality assessment activity by the PSROs.

APPENDIX "B"

March 31, 1980

Mr. Richard Berman, Director
Office of Health Systems Management
Empire State Plaza — Tower Building
Albany, NY 11223

Dear Mr. Berman:

Re: Participation of the Medical Society of the State of New York in the Part 709 Revision Process

Our representative, Dr. Stanley I. Fishman, who has diligently attempted to add meaningful input to the above advisory committee, believes this has resulted in a wasted effort on his part in presenting the viewpoints of the MSSNY. Therefore, with extreme reluctance, we formally request that both Dr. Fishman's name and the name of the Medical Society of the State of New York be removed from the document entitled Revisions to Part 709 Methodology.

On behalf of the MSSNY we would like to restress the following points which we feel addressed the overall problem of Part 709 Revision:

1. The plan for needed acute care beds should be linked to the need for long term care beds, since the two requirements are interdependent. The State plan is to develop two separate sets of estimated bed needs, acute now, and long-term at some future planning sessions.
2. The plan should include conversion of acute care beds to long-term care beds, and the possible conversion back to acute care, should a presently unforseen need arise. In the present cost-cutting atmosphere, there is a very real danger of underestimating acute care bed needs, just as the mistake of overestimating was made in the past. There are widely different estimates (in the thousands of beds) between the State planners and other knowledgeable groups such as the HSAs and the third party payors. A difference of 1,000 beds has been reported for Nassau and Suffolk alone, and 6,000 beds for New York City.
3. At the very least, there should be a plan for a fall-back position to provide the needed acute care beds, in the event the estimates prove to be too low. The present situation with some *excess* beds results in wasted money, but not providing *enough* beds will cost lives, even small disasters or limited epidemics severely strain the present facilities.

We strongly urge that you reconsider 709 Implementation Schedule and direct your staff to be more responsive to the suggestions which were put forth by our organization.

Sincerely,

Henry I. Fineberg, M.D.,
Executive Vice-President

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⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Committee on Professional Standards Review Organizations be filed for information.

⟹ . . . *The report of the Committee on Professional Standards Review Organizations was* **FILED FOR INFORMATION . . .**

SOCIOECONOMICS

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Socioeconomics are as follows:

John W. Abbuhl, M.D., *Chairman*	Albany
Harold N. Schwinger, M.D., *Vice-Chairman*	Kings
Leonard Burness, M.D.	New York
Alfred L. George, M.D.	Genesee
John G. Hamilton, M.D.	Steuben
Richard A. Hughes, M.D.	Warren
Charles S. LaMonte, M.D.	New York
Charles Palmer, M.D.	Chemung
Pellegrino J. Tozzo, M.D.	Westchester
*Christopher J. Luttman	Albany

Since the last annual report the Committee on Socioeconomics held one formal meeting and the following matters were discussed:

Individual Practice Associations (IPA) — Health Maintenance Organizations (HMO). The Council on June 21, 1979, approved the resolution of the Health Systems Agency Coordinating Committee, which was endorsed also by this Committee, that MSSNY encourage county medical societies to study the development of Individual Practice Associations as one possible alternative method of health care delivery and that the MSSNY develop a mechanism to aid county medical societies in this effort. In line with this, a new standing Committee of the MSSNY was established on IPA-HMO, which has been involved in the broad implications relative to the HMO movement. (See Annual Report of the Committee on IPA-HMO.)

Review of National Health Insurance Proposals. The Committee reviewed the National Health Insurance proposals which have been presented to the Congress, specifically S.1720 and H.R.5191 — The Health Care for All Americans Act sponsored by Edward Kennedy, Democrat-Massachusetts, and Representative Henry Waxman, Democrat-California, as well as the Medical Expense Protection Act, H.R.6405, introduced by Representative James Martin, Republican-North Carolina.

The Chairman reviewed the proposed legislation of the Kennedy-Waxman bill and made the following points:

1. Same Level of Quality of Care to All
   This would reduce the quality to some while attempting to increase the quality for others.
2. Cost Tied to Gross National Product
   This would result in rationing of certain medical care and make other care unavailable. It is doubtful that this action could be strictly carried out in such a way as to control costs.
3. Equitable Distribution of Health Care Costs
   Some people would pay more for their health care while others would pay less. The financing of health care through the graduated income tax makes the percentage of income cost for health care far greater for some than for others. This interpretation of "equitable distribution" results in the most unequal sharing of cost that is possible. The industry share in health costs is a product of negotiation and should not be considered an "equitable distribution" that is determined by law.
4. Insurers and HMOs can make their views known and *have them considered.*
5. Providers can make their views known, but there is *no provision* to have them considered.
6. Limitations
   On preventive health services.
   Exclusions of routine checkups and examinations.
   On eye examinations and glasses.

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*Medical Student

On custodial care.
On cosmetic surgery.
On malformed body member surgery to improve function.
On dental care.
On foot care.
A goal of modern health care is health maintenance. The major mechanisms of health maintenance are specifically excluded.

7. The National Health Board, which is all powerful, could require a specialty certification for almost everything and could require that a second opinion be based on predetermined objective findings. They would control the specialists, the primary care physicians, and the institutional providers. Statistical evidence of "high quality and methodology" could be required. No facet would be uncontrolled.
8. Payment
   The lowest fee would be paid to the individual provider.
   There would be agreed fees for the insurer and HMOs.
   They would also have a maximum fee schedule.

The Kennedy plan does not control medical costs, but it does seek to pervasively control medical care delivery. It would impose upon the public a subtle system of rationing of medical care which would effect both quality and availability. Further, it seeks to establish a system for medical cost financing which would increase the effective cost of medical care for that largest segment of the population; those who pay their own way. While the burden of health care can never be borne equally by all, it should nevertheless be equitably proportioned among those with an ability to pay.

The discussion by the Committee resulted in a recommendation that the MSSNY go on record as opposing the Health Care for All Americans Act, S.1720 and H.R.5191, proposed by Senator Kennedy and Representative Waxman. This was approved by the Council on May 22, 1980.

A review of the Medical Expense Protection Act, H.R.6405, proposed by Representative Martin, concluded that it is not a major piece of health legislation. However, fears were expressed that support for this type of catastrophic coverage would act only as an introductory phase for a more comprehensive health care plan that would not be soundly conceived through extensive overall planning. The Committee, however, took no action at this time relative to the Martin Bill.

MSSNY Position Paper on National Health Insurance. As part of the overall review, this Committee was asked to reevaluate the MSSNY Position Paper on National Health Insurance, which was accepted by the House of Delegates of the MSSNY at its 1978 meeting. (See Appendix "A.")

The following minor modifications were recommended:

Paragraph #2 — The last sentence should end after the word "employee" with no percentage stipulation as to what an employer should pay.

Paragraph #5 — The last sentence, beginning "The Board . . ." should be changed to read as follows: "The Board should be composed of a minimum of 50% doctors of medicine, a majority of whom would be actively involved in the private practice of their profession, and appointed from nominees of recognized medical organizations."

Paragraph #10 — The sentence, "Licensure and recognition or certification of health manpower should continue to be a State-level responsibility," should stand alone and a new paragraph be added as follows: "Rather than institute a single inflexible method of quality control, the Health Insurance Board should develop appropriate norms. Established Peer Review mechanisms should be an integral part of a quality assurance program."

A recommendation was made to the Council to reaffirm the MSSNY Position Paper on National Health Insurance as suggested above. After considerable discussion, the Council did not act on the modifications but, instead, referred to the position paper on National Health Insurance to the Committees on Federal Legislation as well as Socioeconomics for reconsideration of whether MSSNY should continue to endorse the concept of National Health Insurance. If the Committees recommend that it is not advisable at this time to support the concept of National Health Insurance, a mechanism should be developed to evaluate legislative proposals.

State Regulation of Physician Supply. A review of the California, New York, and Rhode Island State Plans proposed to regulate physician supply resulted in a consensus by the Committee that we support the AMA position relative to the Rhode Island State Plan and enunciate our opposition to both the New York and California State Plans.

It was noted that there is a distinct violation of academic freedom in the attempts of government to curtail educational programs by limiting or adjusting residencies and this puts in jeopardy all educational programs whether or not of a medical nature. The Committee feels that this intrusion of governmental regulation could jeopardize the education available in this country, considered by all to be the finest in the world. Universities and colleges should consolidate with the medical community to prevent any intrusion by government in the educational process.

The question of the supposed maldistribution of physicians in New York State was discussed and comments were made that such maldistribution is based on faulty analysis of demographic studies. The Committee expressed its disapproval of governmental efforts to regulate the number of physicians, their specialties, and their practice locations, on the basis of projections and assumptions based on limited and incomplete evidence. Reimbursement to physicians might be examined with the thought of developing economic incentives for physicians to enter depressed areas to render medical care. Such economic incentives should be part of an overall package developed by government, consumers, providers, and local county health officials. Since this requires further study, the members of the Committee were asked to evaluate this and bring concrete suggestions to a later meeting.

Certificate of Need Program. The Certificate of Need Program, Article 28 in New York State, represents a distinct threat to the freedom of a physician to practice by requiring a Certificate of Need for establishing offices costing more than $150,000 for the equipment. Although this provision has appeared in many bills, the opposition of many physicians has resulted in the elimination of this onerous provision as it relates to the private practicing physician. However, constant vigil is necessary to insure that this provision is never included in any State Health Plan.

On the recommendation of this Committee, the Council reaffirmed the present position of MSSNY opposing the Certificate of Need Program in a private physician's office.

The Chairman of the Committee expresses his appreciation to the members of the Committee for the time and effort they have devoted to the matters dealt with. He also wishes to thank Robert J. O'Connor, M.D., Director of the Division of Medical Services, Mr. William D. Brainin, Associate Director, and Mrs. Gladys Wunsch, Secretary, for their conscientious efforts and diligence.

Respectfully submitted,

John W. Abbuhl, M.D., *Chairman*

APPENDIX "A"
MSSNY POSITION PAPER
NATIONAL HEALTH INSURANCE

The Medical Society of the State of New York endorses the concept of comprehensive health insurance for all, including both basic and catastrophic benefits. Full hospitalization for both inpatient and outpatient care should be included in such coverage, as well as full parallel coverage for medical care, both in the physician's office and in the institutional setting. All diagnostic, therapeutic, and preventive care by or under the direction of a physician should be included. In addition, benefits for skilled nursing facility care, home health services, psychiatric care, full dental care for children, and emergency dental care should be covered.

The cost of this program should be designed to meet America's health-care needs utilizing a system of cost sharing between employers and their employees, or between government and the recipient in the case of the non-employed, self-employed, and the elderly. In the former case, the program should continue the present widespread use of employment-based insurance funded in the private sector. The basis of this element of the program should be premium sharing between employer and employee, with the employer paying at least 65% of such cost.

In the case of the non-employed, self-employed and the elderly, premiums on insurance should be shared between the insured individual or family and the Federal government based on income, utilizing tax credits. For the indigent, the premium should be paid in full. For others, as income rises, the Federal assistance would diminish. Federal government financing should be limited primarily to subsidies on an income-related basis of the premium for the non-employed, self-employed, and the elderly as a supplement to Medicare benefits, and to tax assistance for five years to employers who experience an increase in payroll costs as a result of the employment-based insurance requirements.

The program should be further maintained on a sound financial basis with the aid of coinsurance and deductibles. Coinsurance should be based upon income, with no coinsurance requirement for low income individuals. Exclusive of such low income group, a 10% coinsurance should apply to all income levels with no absolute dollar limit. Should the amount expended by the recipient exceed 10% of annual income, catastrophic coverage would begin.

The program should be administered primarily in the private sector through the use of private health insurance. Federal government participation should be limited essentially to assisting the poor and low income individuals pay health insurance premiums. A national Health Insurance Board should be constituted to establish minimum standards of qualification for insurers and insurance plans, while State Insurance Departments would continue to regulate private insurers. The Board should be composed of a majority of doctors of medicine, a majority of whom should be actively involved in the private practice of their profession.

The program should preserve the right of every person to select his own physician and health care institution. It should enable the individual person to have a free choice of protection plan, which could be in the form of an insurance policy purchased from a company, membership in a prepayment plan (including HMOs-IPAs), or membership in a prepaid group practice plan. In addition, the physician's freedom should be preserved, including his choice of practice. The program should also build upon the strengths of our pluralistic health care delivery system, utilizing various modes of health care delivery and allowing for further development through innovation and experimentation.

The program should preserve the integrity of the physician-patient relationship, and contain a general prohibition against Federal interference in the practice of medicine. Individual freedoms of both the physician and patient should be maintained with the individual physician exercising his own best judgment as to medical care and treatment needed for his patient.

The program should establish uniform benefit coverage for all persons. It should also provide for a continuation of the same insurance premium for an individual for thirty days after termination of employment, with sixty additional days if paid for by the individual. While the person was covered by unemployment compensation and to the end of the calendar year if not employed by then, he would be covered at government expense.

Basic financing should be in the private sector, with no financing through Social Security. Federal premium subsidies should be made from general revenues through credits against income tax or redemption of "certificates of entitlement." The Social Security Administration would not administer the new program. Overall program administration should be in the private sector and should be the primary responsibility of private insurance carriers, with premium assistance administered through the Federal tax laws.

Licensure and recognition or certification of health manpower should continue to be a State-level responsibility. Peer review should be an integral part of the program. Rather than institute a single inflexible method of quality control the Health Insurance Board should develop appropriate mechanisms for quality review at the time of implementation of the program.

In addition to cost controls through co-insurance and deductibles, hospital reimbursement should be subject to acceptable formulae as determined and agreed upon by the hospitals and insurers thus including a variety of reimbursement methods including prospective reimbursement. Medical service should be subject to usual, customary, and reasonable levels of reimbursement, and be subject to present private insurer programs of review. Also, the Health Insurance Board should have authority to establish appropriate mechanisms for utilization review of services.

Coverage should be furnished by private insurers on a risk and underwriting basis. Benefits payable under any duplicate coverage should be coordinated to avoid duplication of payments. Identification of expenses according to classes of health care providers would be desirable to assess costs of the program. Flexibility in the delivery and financing of health care to promote efficiency and to effect economy is acceptable, provided quality medical care is maintained.

HOUSE OF DELEGATES, 1978

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⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Committee on Socioeconomics be filed for information.

⟹ . . . *The report of the Committee on Socioeconomics was* **FILED FOR INFORMATION** . . .

WORKERS' COMPENSATION AND OCCUPATIONAL HEALTH

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Workers' Compensation and Occupational Health are as follows:

John H. Morton, M.D., *Chairman*	Monroe
Frederic W. Holcomb, Jr., M.D., *Vice-Chairman*	Ulster
George W. Calvosa, M.D.	Kings
Robert A. Caputi, M.D.	Erie
Thomas J. Doyle, M.D.	Queens
Burton P. Hoffman, M.D.	Westchester
Robert Katz, M.D.	New York
Paul C. Lehmuller, M.D.	Nassau
Joyce M. McChesney, M.D.	Monroe
Alexander E. Messer, M.D.	Otsego
Bernard S. Post, M.D.	Kings
Nicholas P. Teresi, M.D.	Albany
Leonard Weitzman, M.D.	Suffolk

Since the last report to the House of Delegates, the Committee on Workers' Compensation and Occupational Health has met on three occasions with lengthy agendas.

Resolution 79-23, Rates for Medical Services under the Workers' Compensation Medical Fee Schedule

Resolved, That the President of the Medical Society of the State of New York continue to fulfill his obligation of advising the Chairman of the Workers' Compensation Board regarding the prevailing medical fees by recommending that the level of fees be set at the usual, customary, and reasonable fee levels present in defined localities.

It was reported that communications had been previously received relative to this resolution, particularly as regards the FTC activity in that area. Legal opinion is that we can participate in the setting of a fee schedule for workers' compensation. This is already official policy of MSSNY and the intent of this resolution is being actively pursued. At present acceptance of usual and customary fees by the Chairman is highly improbable. He is presently moving in the direction of regionalization of fees although the physicians on the Advisory Committee on the Medical Fee Schedule and Allied Problems have expressed opposition to his methodology.

Resolution 79-35, Reasonable Charges to Non-Members by County Medical Societies for Processing Workers' Compensation Rating Forms

Resolved, That the Medical Society of the State of New York endorse the principle of component county medical societies charging a reasonable fee to non-members for processing workers' compensation rating forms; and be it further

Resolved, That said fees will apply to dues if non-members subsequently join the county medical society.

The Committee considered this resolution and noted that the Chairman of the Workers' Compensation Board still has under advisement the question posed by this Committee as to whether nominal fees for processing authorized workers' compensation ratings through the county medical societies may be charged for the work done by the respective county medical society. A letter addressed to the Chairman requesting permission for such a fee was forwarded to him on November 30, 1979. The Division Director noted that the Chairman in a conversation with him stated he would not be adverse to have the county medical societies charge a fee but felt he would like to see this linked with a reauthorization program he is currently contemplating. (Appendix A.)

At the last meeting of the Advisory Committee on the Medical Fee Schedule and Allied Problems the Chairman stated he intends to implement re-registration of all physicians. This will not infer a completely new application process but will update existing files and make them current. The Chairman will permit county medical societies to charge a fee up to $10.00 for processing new applications for workers' compensation authorization.

Definition of Family Physician. It was brought to the attention of the Committee that, at an Executive Committee meeting of the NYS Academy of Family Physicians, the Academy was willing to accept the AMA definition of Family Physician for purposes of workers' compensation. ". . . serves the public as a physician of first contact and means of entry into the health care needs, assumes responsibility for his patients' comprehensive and continuing health care and accepts responsibility for his patients' total health care, including the use of consultants, within the context of their environment, including the community and the family or comparable social unit."

Reaffirmation was requested of this Committee as well as the Council of the MSSNY of the position that specialists in Family Practice should be treated in the same manner as all other specialists under the Workers' Compensation Medical Fee Schedule. The members of this Committee on the Advisory Committee on the Medical Fee Schedule and Allied Problems of the WCB noted that this particular expression is part of the overall proposal that the MSSNY is making concerning the complete revision of the WC Medical Fee Schedule. The efforts of this Committee and the members of the Advisory Committee will be to implement the dictates of the MSSNY Council concerning Family Physicians.

Progress Report — Workers' Compensation Board, Advisory Committee on the Medical Fee Schedule and Allied Problems

Office Visit Fee Schedule Study

A proposal by the MSSNY that a new section in the WC Medical Fee Schedule be included which defines four types of services (two under first visit and two under follow-up visit) and including two levels of payment for each category was unanimously passed at a joint meeting of the Interspecialty Committee and Workers' Compensation Committee. This proposal was taken to the Advisory Committee for their consideration. It was brought out that roughly 50% of the total payments made to physicians under workers' compensation is represented by different types of office visits and that an adjustment in the fee schedule of one type of visit would reflect a corresponding adjustment in all visits. It should be noted that the New York Compensation Insurance Rating Board has countered this proposal by submitting two levels of office and hospital visits with unit values unknown. This proposal will be brought to the attention of the entire Advisory Committee.

In order to develop a statistically valid data base that will support our proposal regarding types of office visits, 1600 closed files were reviewed for the week of November 26, 1979. This included 1100 files from the State Insurance Fund, 250 from the Utica Mutual Insurance Company, and 250 from Travelers Insurance Company.

The consultant to the Workers' Compensation and Occupational Health Committee reported the results of a survey which was undertaken by himself and another physician, Dr. Edgar Bates, in which 2300 charts were reviewed to determine the percentage of first office visits construed as comprehensive, and first office visits which were intermediate. The results of their survey showed that 25% were of the comprehensive first office visit and 75% were the intermediate type. (Appendix B.)

This is of great import to this Committee because upon the completion of the update of the Relative Value Study, 4 office visits will be included in the presentation to the WCB when the updating of the RVS is completed. The Committee Chairman reiterated that there will be a request that specialists in Family Practice be treated in the same manner as all other specialists and that this request be a part of the overall package. A specific question was raised concerning the possibility of taking the Family Physicians request for parity to the Workers' Compensation Board as a special issue. It was the opinion of the Advisory Committee members that such requests would not be successful.

Insurance Carrier Consultants. This Committee was made aware of a condition which has existed concerning insurance carriers using physicians as consultants who are not authorized by the WCB. The Chairman of the WCB noted that difficulties exist in securing physicians with workers' compensation ratings to act as consultants when needed. This Committee feels that efforts must be made to help the WCB Chairman to secure proper physician input when an occasion arises and where the opinion of a specialist in a particular case is necessary. It was proposed that there be established a list of specialty consultants using the specialty classification as authorized by the American Board of Medical Specialties, as well as the individual certificate of special competency as recognized by specific Boards.

The Chairman of the Committee reported that 22 specialty boards have been previously approved by the American Board of Medical Specialties and a new specialty designated "EMERGENCY MEDICINE" has recently been established. The Chairman of the Committee submitted to the Committee an up-to-date list of specialties and sub-specialties. (Appendices C & D.)

A motion was made that the MSSNY request all county medical societies to develop a list of specialists (based on approved consultant designations) with workers' compensation ratings, who would be available to act as consultants in workers' compensation cases. Fees for such consultants would be arrived at by mutual consent. Upon promulgation of such lists by the county medical societies, they were sent to the MSSNY, attention of the Director of the Division of Medical Services, for submission to the Chairman of the WCB.

The Council approved this motion at its meeting in February, 1980, and a letter was sent to all county medical society presidents and executive directors for names of physicians who wish to act as consultants for insurance carriers. (Appendix E.)

The Committee received positive responses from 12 counties and recommended that a follow-up letter be sent to the counties who have not replied. It was noted that county medical societies should comply with the request for a suitable list of consultants as in the best interest of their physicians.

Physicians' Assistants. A letter addressed to the Chairman of the Workers' Compensation and Occupational Health Committee from the Rochester-Genesee Orthopedic Group, P.C. (a limited service professional corporation) referrable to the use of payment of services by corporate physicians' assistants to provide initial evaluation was brought to the attention of the Committee. Salaries are paid by the corporation and not by the hospital involved. In many instances the PA "must seek supervision and guidance from a member of the corporation (generally, but not necessarily the orthopedic surgeon on call for the day)." Billing to third party payors would be done by the corporation for all services rendered. The corporation wishes to have an opinion as to how they should proceed to secure payment for PA services under the WCL and particularly where services are rendered by the PA without the physical presence of the supervising authorized physicians. (Appendix F.)

The Committee discussed the intent of this letter following which a motion was made that the Committee reiterate its position that "no payment should be made for services rendered by a PA in the absence (physical presence) of the supervising physician." This was seconded and unanimously approved.

The Council received the above for information.

The Committee further suggested that review of the Law, referrable to PA activities with all its ramifications, be undertaken for clarification purposes and summarized succinctly for future reference.

The Council at its meeting on February 14, 1980, discussed the present position of the MSSNY on Physicians' Assistants and voted to TABLE the request of the Committee indefinitely.

The Committee at its meeting on February 21, 1980, noted the Council's action in regard to Physicians' Assistants and a motion was made to reaffirm its position that services performed by physicians' assistants should not be payable under the WCL rules unless such services are rendered under the direct and personal supervision of the physician. This was passed unanimously. It was noted that any action taken by our Council in affirming this position would be contrary to NYS Law which states:

> "250-3 *Supervision and Scope of Duties* (Ref. State Education Law Section 6532 and 10 NYCRR 94.2)
>
> "A. A registered physician's assistant or registered specialist's assistant may perform medical services but only when under the supervision of a physician.
>
> "Such supervision shall be continuous but shall not necessarily require the physical presence of the supervising physician at the time and place where the services were performed."

However, this Committee went on record in recommending to the Council to use its best efforts to amend this State law, noting that it is not in the best interest of good medical practice. The Committee believes that a new emergency medical problem should *not* be managed by a physician's assistant unless the physician personally sees the patient and directs the management.

At a meeting of the WC & OH Committee on June 5, 1980, the above was noted and a motion was introduced that the position of this Committee relative to physicians' assistants be reaffirmed as conforming to the statement above and request Council action to reflect the underlined portions of the motion.

> "Services performed by physicians' assistants should not be payable under WCL rules unless such services are rendered under the *direct* and *personal* supervision of the physician."

This was seconded and unanimously passed. The Council at its meeting on June 26, 1980, approved the above motion after deleting the words "under WCL rules."

Regionalization Study
Milliman and Robertson Report

In November, 1979, it was reported that the Regional Study conducted by the firm of Milliman and Robertson, Inc., had been completed. The Chairman of the WCB gave a copy to each physician member of the MSSNY on the Advisory Committee for their consideration with further distribution to the full Advisory Committee at a later date. One copy of the Study was sent to the AMA Actuarial Department. In December, 1979, the Chairman was contacted by MSSNY who stated it was unable to comment on the draft because of the incomplete information supplied. "The appendices list the sources but do not specify the particular table or data utilized from the individual sources in the compilation. It is necessary for a meaningful analysis to have such identification and preferably a copy of the tables used for each of the categories on which the conclusions were based." In December of 1979 a letter was received from the Research and Development Department of the AMA agreeing with our position. (Appendices G & H.)

On March 19, 1980, the President of the MSSNY, wrote a letter to Mr. Arthur Cooperman, Chairman of the WCB, answering the request of Mr. Cooperman for an opinion regarding an "Analyses and Recommendations Concerning a Regionalized Fee System for the NY Workers' Compensation." In this letter the President requested additional statistical information. (Appendix I.) After receipt of this information, the President again wrote to the Chairman on May 22, 1980, stating reservations for accepting this study. (Appendix J.) On May 29, 1980, permission was received from the Chairman of the WCB that the report could be disseminated throughout the State. On June 2, 1980, a copy was sent to the Presidents of all county medical societies, members of Workers' Compensation and Occupational Health Committee, the Interspecialty Committee, and to the Executive Directors of county medical societies. (Appendix K.)

One of the great problems in refuting the concepts presented in the Milliman and Robertson, Inc., Report on Regionalization is the lack of hard data for intra New York State relative to patterns of practice and cost overhead for maintaining a practice. We have no hard data to substantiate or refute the Report. The Division continues to work on a methodology to get this kind of data which is so vital for our negotiating positions. Numerous discussions with the AMA Statistical Department and with outside firms as well as our "in-house" computer services are being held to determine the best method to secure data that will be statistically and actuarially sound and hence stand up under close scrutiny. The obtaining of this type of data is being actively pursued.

When the Advisory Committee on the Medical Fee Schedule and Allied Problems met on May 23, 1980, the Chairman announced that he intended to implement this Regionalization Plan based on Regional Pattern 4-10 as outlined in the report with the addition that the eastern end of Suffolk County (zip code 119) will also be in Area II. The Chairman's present plan is to implement the plan on July 1, 1980, but realistically this probably will not occur until September 1, 1980. A Statewide uniform fee will be established for each modality of practice and for the specialist. Then, on top of this a percentage factor based on the cost of maintaining a practice in each region will be added to the base fee. These percentages will be increased step-wise until equity is reached in all regions. This will require a 3 or 4 year period of graduated increases to achieve desired goal.

The Chairman has stated that with the institution of regionalization there shall *not* be any decrease in existing fees under the present relativity. The MSSNY, however, is still of the opinion that the adoption of the usual, customary, and reasonable (UCR) principle would be a far more equitable payment mechanism than a geographic regionalization. If the UCR principle is not acceptable, then the medical prevailing fee percentage differential would be a second choice. These alternatives have been repeatedly discussed with the Chairman but they remain unacceptable to him.

The Chairman also announced that he was planning to hold seminars during the month of June in the Fifth, Sixth, Seventh, and Eighth Districts to discuss a proposal to establish regionalized medical fee schedules.

Updating the Workers' Compensation Medical Fee Schedule. At its meeting on February 13, 1980, the Executive Committee was informed of the developments at the February 7, 1980, meeting of the Interspecialty Committee, at which a motion was approved (10 for, 3 against, and 1 abstention) that —

> "The only revision proposed by the Committee is to discontinue the use of all RVS tables in the Workers' Compensation Medical Fee Schedule, with the exception of anesthesia, since they deal with an outdated distribution base that fails to take into account new procedures. The Committee continues to request usual and customary compensation for services."

The Executive Committee postponed action on the motion of the Interspecialty Committee until the Committee on Workers' Compensation and Occupational Health has considered it and submitted its comments to the Executive Committee.

The Workers' Compensation and Occupational Health Committee reviewed the actions taken by the Interspecialty Committee as well as the comments received from the New York State Society of Surgeons, Inc., and after due deliberations the following motion was made: (Appendix L.)

1. That the MSSNY continue to seek the payment of usual, customary, and reasonable fees to physicians for services rendered to patients covered by the provisions of the WCL;
2. That, however, if this approach is not accepted by the Chairman of the WCB, the MSSNY continue to participate actively in the deliberations of the WC Advisory Committee on the Medical Fee Schedule and Allied Problems; and
3. The MSSNY continue to update the terminology and relativity of the present Workers' Compensation Medical Fee Schedule and seek the implementation of such revision as early as possible.

The motion was seconded and passed unanimously.

The Council, after considerable discussion, approved recommendations 1 and 2 and unanimously approved #3.

After some discussion of payment for different levels of office visits, a motion was made to reaffirm the position taken by this Committee and the Interspecialty Committee at a joint meeting on February 20, 1979, relative to office visits. The motion was seconded and passed unanimously.

No-Fault Insurance Law. There continues to be a major problem. The status of the lawsuit at the present time remains unchanged. Unofficially the Judge has indicated that the State does have the right to include No-Fault under Workers' Compensation — essentially negating our unconstitutional approach. In the other part of our contention that the fees are inequitable we face the same problem of lack of sufficient and solid data to support our position. We are still waiting for a judicial decision on our contentions. There are indications that such decisions will be forthcoming in the near future.

Nevertheless, we must emphasize the continuance of this legal action to remove No-Fault from the Workers' Compensation Fee Schedule — such schedule being used as a maximum fee schedule. The importance of No-Fault in relation to Workers' Compensation Fee Schedule is far more significant to our physicians than is Workers' Compensation per se.

X-Ray Film Charges. A member of the Committee asserted that an inordinate rise (100%) in the cost of x-ray films has caused a major increase in expenses relative to radiology services. It was requested that this be brought to the attention of the Advisory Committee on the Medical Fee Schedule and Allied Problems of the WCB so that an increase might be sought to relieve the financial burden of those physicians doing x-ray work under workers' compensation. The members of the Advisory Committee present at this meeting stated that they would require specific facts and figures relative to expenses before any application could be made for an interim increase.

At the March 20, 1980, meeting of the Advisory Committee on the Medical Fee Schedule and Allied Problems of the WCB, it was stated that data had been obtained regarding film costs and that the cost of films in 28 procedures indicated an overall 93.6% increase during the year in the cost of the x-ray films. This represented at least 6% of the total radiology fee. The Advisory Committee unanimously recommended that effective May 1, 1980, the Radiology Dollar Conversion Factor be increased approximately 7% from $21.00 to $22.50 to compensate the physician for the recent increases in x-ray film costs. The Chairman of the WCB granted this increase effective May 1, 1980, and it will be reevaluated toward the end of June. The Chairman of the WCB has announced this increase will be in effect until September 1, 1980.

Legislation

Assembly Bill 7183 "AN ACT TO AMEND THE WCL IN RELATION TO THE INVESTIGATION AND HEARING OF CHARGES AGAINST AUTHORIZED PHYSICIANS."

The Committee reviewed the intent of this bill and recommended that the MSSNY make no recommendation either to support or oppose it. (See Appendix "M.")

A bill to have all victims of violent crime reimbursed on the basis of the workers' compensation fee schedule has been introduced in the Albany Legislature and is expected to be passed by both Houses of the Legislature.

Chapter 630, Laws of 1979.

> "An Act to Amend the WCL, in relation to payments for medical and/or hospital services on behalf of an injured employee."

This section authorizes the use of other insurance carriers to pay for compensation cases until such time as compensability of the claim is determined. The fees received from such an insurance carrier should be the lower of either the WC fee or the insurance carriers fee. If the condition of the patient is considered compensable, adjustments will be made by the compensation carrier to the other insurance carrier, and by the physician to the insurance carrier, if payment received is greater than the workers' compensation fee schedule allowance.

Report of the Meeting with the Presidents of the Specialty Societies. The Division Director reported on the meeting which was called by the President of MSSNY, G. Rehmi Denton, M.D., with the Presidents of the Specialty Societies on April 3, 1980, to discuss the reasons and necessity for revising the Relative Value Scale and updating its terminology, methodology, and relativity. This is being done so that MSSNY can answer the request of the Chairman of the WCB for what is construed as fair and reasonable reimbursement for services rendered as required by WCL. The meeting was necessitated because of the action of the Interspecialty Committee on February 7, 1980, in passing a motion to eliminate all RVS tables in the Workers' Compensation Medical Fee Schedule and negotiate only on UCR fees. The Interspecialty Committee at its last meeting on May 8, 1980, reconsidered its stand and reversed its position by agreeing to proceed to update the relativity and terminology of the RVS as it pertains to the WC fee schedule for presentation as part of a package of requests to the Chairman of the WCB. The earliest that this study can realistically be completed will be the spring of 1981.

Emergency Medicine. At the June 5th meeting of the Committee the Chairman noted that an American Board of Emergency Medicine has been established since September, 1979, and the first series of examinations for the Specialty of Emergency Medicine had been completed. This group of physicians is now recognized as a Specialty in the spectrum of medical practice of Emergency Medicine. Most physicians render emergency medical care either on a fee-for-service basis or as a salaried hospital employee under contract. The consensus of this Committee is that it is too soon to judge the impact that the Specialty will have relative to workers' compensation, but that we should start to face the problem now rather than wait for pressure to be exerted.

Letter from President of the Suffolk County Medical Society re Arbitration of WC Hospital Bills. A letter received from Stephen I. Braitman, M.D., President of the Suffolk County Medical Society, dated April 7, 1980, was referred to the Committee for consideration. It was felt by the Committee that the attending physicians are at a definite disadvantage when an insurance carrier controverts a hospital bill, as it relates to length of stay, when the carrier, if upheld at the hospital arbitration meeting, causes the attending physician to be penalized without having any prior notification of the arbitration hearing. (Appendix N.)

Unfortunately many of the days disallowed are due to the lack of proper documentation by the physician. However, in the best interest of all parties concerned a recommendation was made that a copy of the decision to controvert the hospital bill be sent to the attending physician who performed the service so that he can present his position at the hospital arbitration meetings. It was further recommended that this request be brought up for discussion by the physician representatives sitting on the Medical Advisory Committee of the Workers' Compensation Board for presentation at its next meeting. The MSSNY did present the problems to the Advisory Committee and it was discussed. It was the opinion of the WCB that the law required the hearings to be held in the present manner and could not be altered without a change in the WCL. The MSSNY representatives were of the opinion that a simpler method of dealing with the problem is feasible and intends to pursue this further.

Since this topic is already under discussion by the Workers' Compensation Board and is being discussed with HANYS, it is felt that action by the Council at this time is premature and will be presented at a future meeting as an action item.

Resolution — Medical Society, County of New York. The following resolution was brought to the attention of the Committee on June 5, 1980:

> "That the Medical Society of the County of New York express to the Medical Society of the State of New York, in negotiating with the Chairman of the Workers' Compensation Board, that if differential fees are established within the State, Manhattan be designated a separate unit because costs are higher in Manhattan than anywhere else in the State."

The Committee members felt that this request was moot since the Chairman of the Workers' Compensation Board has signified his intention to regionalize fees throughout the State with differentials between certain areas. (Appendix "O.")

Workers' Compensation Board Rule Revisions. Rule 18 — Interest Charges — The Chairman of the WCB has issued an order detailing how physicians and hospitals may be able to collect 1½% per month interest on bills determined to be due and owing and covering services rendered on or after January 1, 1980. The Chairman's order implements a law (Chapter 629 of the Laws of New York, 1979) that met one of the MSSNY's legislative objectives last year. The full text of this rule was published in the January, 1980, *New York State Journal of Medicine.*

Form A-1 — The Workers' Compensation Board has revised its procedure for processing objections by carriers, self-insurers to a physician or hospital bill. Beginning July 1, 1980, carriers will be required to use revised Form A-1 to register their complaints to the Board. If the carrier raises only arbitration issues (Item 16) and the physician desires arbitration, he/she must request it using form A-1. If there are both legal and arbitration issues, the Board will advise the provider how to request arbitration once the legal issues have been resolved in the provider's favor. The Workers' Compensation Board advises physicians to telephone the carrier and attempt to reconcile the bill before requesting arbitration. This information was published in the *News of New York*, issue of April 15, 1980. The effective date had originally been May 1 but was moved up to July 1, 1980.

On March 15, 1980, the membership was informed through *News of New York* that the Workers' Compensation Law has been amended to permit payment for medical expenses through an injured worker's private health insurance coverage when the worker's claim for compensation has been contested and is awaiting resolution. The physician (or hospital) shall call the nearest Workers' Compensation Board and give full details of the case. The Board will then give instructions to the private carrier. The law also provides for reimbursement to the private carrier if the Board determines that the claim is compensable. This amendment was published in *News of New York*, March 15, 1980.

Outpatient Hospital Agreement. This Committee reviewed the Outpatient Hospital Agreement and noted that some of the wording and language has to be clarified in order to specifically enunciate who is rendering services in the emergency room. The Outpatient Hospital Agreement was brought to the Committee's attention for information only by the Advisory Committee on the Medical Fee Schedule and Allied Problems of the WCB. (Appendix "P.")

The Chairman would like to express his appreciation to all the members of the Committee, Robert J. O'Connor, M.D., Director, Division of Medical Services, Max N. Howard, M.D., Consultant to the Division, Mr. William D. Brainin, Associate Director, and Miss Alice E. Wheeler, Administrative Assistant, for the invaluable assistance they have rendered to the Medical Society of the State of New York and to me.

Respectfully submitted,

John H. Morton, M.D., *Chairman*

Appendix "A"

November 30, 1979

Arthur Cooperman, Chairman
Workers' Compensation Board
Two World Trade Center
New York, New York 10047

Dear Mr. Cooperman:

An increasing number of our component county medical societies are experiencing severe financial problems as is most everyone else in this period of high inflation. They are exploring avenues that would lessen their financial strains and asking to levy charges for services when such are appropriate and justified. A number of them have requested opinions as to the institution of a reasonable charge for reviewing applications for authorization to treat workers' compensation claimants, a review process mandated by the Workers' Compensation Law. In the 1979 House of Delegates meeting of our Society, a resolution was introduced (Res. 79-35 — Reasonable Charges to Non-Members by County Medical Societies for Processing Workers' Compensation Rating Forms) and approved in principle that reasonable charges for such processing could be levied.

The activities of the county medical societies are supported by the dues of its members and these have been increasing but not keeping pace with the rate of inflation. What is particularly irksome to the county medical society is that some services such as the review of applications for WCB authorization and assistance with their workers' compensation problems must be offered to *nonmembers* as well as members. The former are then in fact having a free ride.

The MSSNY does not believe it unreasonable or unjustified to require an applicant in the circumstances under discussion in this letter to pay a reasonable fee for such service. You will note from the enclosed that this issue arose in 1935 and in a communication from the then Industrial Commissioner, he found that such a charge was in order.

The circumstances vary considerably from one county to another and we suspect that each of them may elect to charge or not to charge in accordance with their individual circumstances. The burden may be minimal in some areas and considerable in others so that one society may decide not to charge anything and another may levy a charge, the amount varying again according to its particulars.

The MSSNY would like to inform its county medical societies that they may charge a reasonable fee for expenses incurred in the processing of Workers' Compensation Board applications for *all* applicants. We respectfully request your consideration and approval for such a procedure.

Cordially,

Robert J. O'Connor, M.D., *Director*
Division of Medical Services

APPENDIX "B"

Comprehensive and Intermediate Levels of Medical Service by Specialty of Provider New York State, 1979[a]*

	Specialty	Total first visits		Comprehensive examinations		Intermediate examinations	
		Number	Percent	Number	Percent	Number	Percent
	Total	2,373	100.0	211	8.9	2,162	91.1
	General practitioners	1,560	100.0	2	0.1	1,558	99.9
X, XC —	General practice	1,506	100.0	2	0.1	1,504	99.9
XM 5 —	Minor surgery	5	100.0	—	—	5	100.0
XOP —	Osteopathy	46	100.0	—	—	46	100.0
	All other general practitioners	3	100.0	—	—	3	100.0
	Consultants in specialty	756	100.0	200	26.5	556	73.5
SA, SAC —	General surgery	311	100.0	53	17.0	258	83.0
SB —	Orthopedic surgery	264	100.0	98	37.1	166	62.9
SM 7 —	Plastic surgery	7	100.0	1	14.3	6	85.7
SM 9 —	Neurosurgery	16	100.0	15	93.7	1	6.3
SH —	Dermatology	13	100.0	1	7.7	12	92.3
SI —	Neurology	5	100.0	5	100.0	—	—
SJ —	Internal medicine	16	100.0	13	81.2	3	18.8
SE —	Ophthalmology	93	100.0	4	4.3	89	95.7
SF —	Laryngology, rhinology, otology	8	100.0	3	37.5	5	62.5
	All other consultants in specialty	23	100.0	7	30.4	16	69.6
	Other specialists	57	100.0	9	15.8	48	84.2
A —	General surgery — major	29	100.0	2	6.9	27	93.1
B —	Orthopedic surgery	14	100.0	3	21.4	11	78.6
J —	Internal medicine	5	100.0	2	40.0	3	60.0
	All other specialists	9	100.0	2	22.2	7	77.8

[a] A study of medical bills covering all "medical only" and "compensable cases" closed from November 26, 1979, through November 30, 1979. The workers' compensation claim files were made available by the State Insurance Fund, Travelers Insurance Co., and Utica Mutual Insurance Co.

Comprehensive and Intermediate Levels of Medical Service by Insurance Carrier New York State, 1979[a]*

Insurance carrier	Total first visits		Comprehensive examinations		Intermediate examinations	
	Number	Percent	Number	Percent	Number	Percent
Total all carriers	2,373	100.0	211	8.9	2,162	91.1
State Insurance Fund	1,690	100.0	141	8.3	1,549	91.7
Travelers Insurance Company	577	100.0	66	11.4	511	88.6
Utica Mutual Insurance Company	106	100.0	4	3.8	102	96.2

[a] A study of medical bills covering all "medical only" and "compensable cases" closed from November 26, 1979, through November 30, 1979.

* PREPARED BY NEW YORK STATE Workers' Compensation Board, Office of Research & Statistics, May 1, 1980

APPENDIX "C"

December 7, 1979

Robert O'Connor, M.D.
Director
Division of Medical Services
Medical Society of the State
of New York
420 Lakeville Road
Lake Success, New York 11042

Dear Bob:

The various specialty boards accepted by the American Board of Medical Specialties are as follows:

1. Allergy and Immunology
2. Anesthesiology
3. Colon and Rectal Surgery
4. Dermatology
    a. certificate of special competence in dermatopathology
5. Emergency Medicine
6. Family Practice
7. Internal Medicine
    a. certificates of special competence in
        cardiovascular disease
        endocrinology and metabolism
        gastroenterology
        hematology
        infectious disease
        medical oncology
        nephrology
        pulmonary disease
        rheumatology
8. Neurological Surgery
9. Nuclear Medicine
10. Obstetrics and Gynecology
    a. certificates of special competence in
        gynecologic oncology
        maternal and fetal medicine
        reproductive endocrinology
11. Ophthalmology
12. Orthopaedic Surgery
13. Otolaryngology
14. Pathology
    a. certificates of special competence in
        blood bank
        chemical pathology
        dermatopathology
        forensic pathology
        hematology
        medical microbiology
        neuropathology
        radioisotopic pathology
15. Pediatrics
    a. certificates of special competence in
        pediatric cardiology
        pediatric endocrinology
        pediatric hematology-oncology
        pediatric nephrology
        neonatal-perinatal medicine
16. Physical Medicine and Rehabilitation
17. Plastic Surgery
18. Preventive Medicine
19. Psychiatry and Neurology (although this is a combined board separate certificates are given in Psychiatry and in Neurology)
    a. certificates of special competence in child psychiatry
20. Radiology
    a. certificates of special competence in nuclear medicine
21. Surgery
    a. certificates of special competence in pediatric surgery
22. Thoracic Surgery
23. Urology

I hope that this information will be useful to you and, if you wish, to Mr. Cooperman.

Sincerely yours,

John H. Morton, M.D.

APPENDIX "D"

February 25, 1980

Robert J. O'Connor, M.D.
Director
Division of Medical Services
Medical Society of the State
of New York
420 Lakeville Road
Lake Success, New York 11042

Dear Bob:

In giving you the list of approved certifications, it is quite correct that I missed some of the things done by the board. This is an update to supplement the information I gave you previously.

The American Board of Pathology gives general certifications in:

(1) Anatomic and Clinical Pathology
(2) Anatomic Pathology
(3) Clinical Pathology

The American Board of Preventive Medicine gives general certifications in:

(1) Aerospace Medicine
(2) General Preventive Medicine
(3) Occupational Medicine
(4) Public Health

The American Board of Psychiatry and Neurology gives general certifications in:

(1) Psychiatry
(2) Neurology
(3) Neurology with special competence in Child Neurology
(4) Psychiatry and Neurology

The American Board of Radiology gives general certifications in:

(1) Radiology
(2) Diagnostic Radiology
(3) Therapeutic Radiology

This is in addition to the various certificates of special competence which I mentioned in my letter of December 7, 1979. As other boards or certificates are developed and approved, I shall let you know.

Sincerely yours,

John H. Morton, M.D.

APPENDIX "E"

February 18, 1980

TO: Presidents of all County Medical Societies
Executive Directors and Executive Secretaries

FROM: Robert J. O'Connor, M.D., Director
Division of Medical Services

The Chairman of the Workers' Compensation Board has brought to our attention that difficulties are being encountered in securing authorized specialist consultants for workers' compensation cases when so requested by compensation carriers. The difficulty in securing such consultants frequently results in delayed payments to physicians.

The Council of the Medical Society of the State of New York at its last meeting on February 14, 1980, passed a resolution requesting each county medical society to develop a list of consultants (those physicians with authorization numbers and S rating) who will be available to render consultations when so requested by compensation carriers. Remuneration for such consultant services are to be arranged by the individual physician and the carriers at the time the service is requested.

Attached is a list of Specialties and Certificate of Special Competence as approved by the American Board of Medical Specialties. Using the specialty designation as a guide, please develop a list of physicians (use names, addresses, and authorization numbers) who are willing to render requested consultations. When such a list is developed, please forward to the Division of Medical Services, MSSNY, at above address.

Your cooperation in this matter is greatly appreciated and will help to provide proper and speedier service to the patient-claimant and to physicians seeking payment for services rendered. There is some urgency in this matter and your efforts to expedite this request will help.

APPENDIX "F"

Rochester-General Orthopaedic Group, P.C.
Rochester, New York

Orthopaedic Surgery

November 28, 1979

John H. Morton, M.D.
Strong Memorial Hospital
Rochester, N.Y. 14642

Dear Dr. Morton:

As you know from our recent telephone conversation, it was suggested to me by Mr. Arthur Cooperman of the Workers' Compensation Board that the request that I'm enclosing be directed through you. Many of the comments that I will be making in the first several paragraphs are well known to you, but since his letter will have a wider circulation, especially to Mr. Cooperman, I thought I would include more detail than you might require.

As is well known to you, in 1979, a decision was made by the Department of General Surgery at the University of Rochester to reduce the number of general surgical house officers in training. There were many reasons cited all of which seemed to point to a better but smaller training program.

The Genesee Hospital, a major teaching affiliate in the university system, faced the problem of finding the means to provide service where previously it had been provided by general surgical house officers. The most critical area of coverage appeared to be in the Emergency Room where general surgical house officers had provided initial evaluation for both general surgical and orthopaedic patients.

With the withdrawal of services, the Department of Orthopaedic Surgery and its 12 orthopaedic attendings on the active staff were faced with the task of providing continuous on site coverage 7 days a week as individuals or developing some alternative.

The alternative that ultimately developed was to organize a limited service professional corporation to provide Emergency Room orthopaedic services. This corporation (the Rochester-Genesee Orthopaedic Group Professional Corporation) was organized under all existing state and federal laws and consisted of all the members of the active orthopaedic staff.

1. The corporation has hired physician's assistants to provide initial evaluation. In every instance, the physician's assistants must seek supervision and guidance from a member of the corporation (generally, but not necessarily, the orthopaedic surgeon "on call" for the day). It was agreed that the corporation and all its components would strictly abide by all restraints imposed by New York State Laws and Regulations as well as those imposed by Hospital By-Laws.
2. The salaries of all corporate physician's assistants and the clerical help were paid by the corporation — not by the hospital.
3. The supervision and scope of duties as well as billing and payment for the physician's assistants would be as outlined under provisions 250-3 and 250-4 of the State Medical Handbook. These provisions had been outlined in State Education Law 6532 and 10 NYCRR 94-2 as well as section 90.1 of the Administrative Rules and Regulations of the State Commissioner of Health. (For your information, I am sending a copy of the information prepared by the New York State Department of Health Division of Health Manpower that summarizes these arrangements. You will see that Sections 250-3 and 250-4 are excerpted on the last two pages of this handout.)

It was felt that this arrangement would provide:

1. A highly skilled level of coverage with clear lines of responsibility.
2. Under a corporate arrangement services could be provided by one surgeon to the patient of a second surgeon with appropriate distribution of a single fee within the Corporation. For example, if a fracture were treated by one physician in the Emergency Room with follow-up by a second surgeon, only one fee would be charged. The fee would be collected by the Corporation and prior to distribution between the 2 involved surgeons, a portion would be used for corporate overhead.

From the standpoint of the Workers' Compensation Board, it should be noted that all attendings are Board certified surgeons with SB ratings.

The system was instituted on July 1. It has resulted, in my opinion, in an excellent brand of Emergency Room orthopaedic medicine. The ease of access has been improved, the care has been expedient, and entree into medical care has generally been quite good.

As the Chief of Orthopaedics at The Genesee Hospital and coincidentally, the President of the Corporation, I have had to deal with a whole host of problems. Many of them are simply because the system is new and somewhat unique. I have, in the course of attempting to solve some of these problems, discussed our arrangement very thoroughly with Dr. David Axelrod, the State Commissioner of Health, and his Deputy for Health Manpower, Dr. Julia Freitag. I think it's fair to state that we have their support and encouragement. I am certain that they feel that our organization fulfills criteria established under State laws governing PA supervision.

We have encountered considerable difficulty with local Blue Shield and at their request have asked the N.Y. State Insurance Commissioner to become involved in this problem. I have had several extended discussions with Mr. James Clyne, the Deputy Superintendent for the New York State Insurance Commission and it is my understanding that our corporate means of practice Is acceptable to the Insurance Commission Office. Mr. Clyne has suggested to me that we develop some sort of pro-rated billing scale using standard schedules in which we would charge less than the standard medical fee schedule when physical presence is not fulfilled. *This is quite acceptable to all of us* in the corporation, even though the law does state that "the responsible physician is eligible for payment of the fees established for physicians in the Medical Fee Schedule."

I have made an effort to talk to the Rochester Claims Managers Council. This was done on November 13. This was a very cordial meeting, I felt, but they introduced their opinion that the Compensation law did not necessarily follow other New York State Laws and wished to have an opinion by the Workers' Compensation Board as to how they should proceed in payment. To date, we have been charging under the standard Workers' Compensation Codes.

A review of Workers' Compensation Law does not give me any clear indication on the method in which Physician's Assistants could work. There are also some ambiguities dealing with Professional Corporations. Dr. Julia Freitag at the Health Commissioner's Office feels that the problem of PA's has been addressed at times, but I'm not sure of any decisions.

We wish to be absolutely meticulous in adhering to all existing and future New York State Regulations. All of us as physicians desire that the service we render be above question legally and ethically. I think we are all convinced at this point that what we have developed is prudent and good. Our Physician's Assistants, I think, have been outstanding.

I should add that concern over physical presence is particularly pertinent for Worker's Compensation. Of the group of people that we see, physical presence is actually fulfilled in about 70% of the time. In the 30% where physical presence is not, in our judgment, required, many of the patients have compensable injuries. As I think you're aware, it's quite common in a working situation for a foreman or some other management personnel to insist that the employee be examined after minor trauma. Frequently nothing more than a mild injury is noted. Under our present system, this would usually be seen by the PA initially and referred to the doctor at a later follow-up. We have had to do this in order to accomplish filling out the required C4 forms.

We have a bit of an urgent problem in the sense that our cash flow is bad. Reluctance of Blue Shield and other carriers to pay for any services without explanation of our system has resulted in considerable debt. Mr. Cooperman suggested to me in my telephone conversation with him on November 16, that if this information was presented to you, that it might be included in your December meeting at the World Trade Council.

Yours sincerely,

Carl Harris, M.D., *President*
Rochester-Genesee Orthopaedic Group, P.C.

INFORMATION REGARDING PHYSICIAN'S ASSISTANT AND SPECIALIST'S ASSISTANT CATEGORIES OF PROFESSIONAL HEALTH PERSONNEL

Background Information

The 1971 session of the New York State Legislature enacted legislation (Chapters 1135 and 1136) recognizing two categories of physician's assistants, the Physician's Assistant and the Specialist's Assistant, respectively. Responsibility for the implementation of this legislation is shared by the New York State Departments of Education and Health, with the assistance of the New York State Advisory Council on Physician's Assistants and Specialist's Assistants appointed by the Governor. The effective date of the legislation was April 1, 1972.

The New York State Department of Education is responsible for approving programs for the training of P.A.s and S.A.s, determining equivalent education and training and registering qualified persons as P.A.s and S.A.s.

The New York State Department of Health is responsible for designating specialized medical services for which S.A.s will be registered and for promulgating regulations defining and restricting the duties which may be assigned to P.A.s and S.A.s and the degree of supervision required by their supervising physicians.

The Hospital Review and Planning Council is responsible for promulgating rules and regulations pertaining to the utilization of P.A.s and S.A.s in hospitals (Article 28 facilities).

Physician's Assistant (P.A.)

As provided for in the new legislation, the Physician's Assistant (P.A.) corresponds closely to the Type A physician's assistant as described by the National Academy of Sciences. The Physician's Assistant is an individual who by virtue of his education, training and experience in the basic sciences, clinical sciences and clinical practice, is competent to perform most, if not all, of the simpler medical tasks traditionally performed by a physician. These include taking medical histories, performing physical examination, recognizing the need for a variety of laboratory, diagnostic and therapeutic procedures and performing many procedures. Additionally, he is able to employ a degree of medical judgment in the performance of these tasks and is, in short, competent to do a basic patient work-up.

The P.A.s education, training and experience determine the type of physician whom the P.A. is best qualified to assist. There are currently across the country Type A training programs for the training of P.A.s in several general medical and specialty fields; i.e., family practice, pediatrics, surgery, etc. P.A.s prepared to work with physicians providing general clinical services have emphasized the handling of general medical patients in their clinical training and practice while those who are prepared to serve with physicians in a medical specialty practice have emphasized during some portion of their clinical training and practice the handling of patients with medical problems peculiar to a specialty field. P.A.s trained in general medicine have the broadest applicability with respect to their appropriate utilization by essentially any licensed physician in clinical practice. P.A.s completing training programs approved in New York State (or equivalent elsewhere) possess significant clinical capability. They are also prepared to acquire additional knowledge and skills under the guidance and instruction of their supervising physician(s).

Most of the Type A P.A. training programs presently operational in New York State and the country are of two years duration. These programs recruit their students from individuals with a health care background such as discharged medical corpsmen, nurses, LPNs and other allied health categories. There are a scattering of programs of four or five years in length designed to take students directly out of high school. Many of the two and four year programs are college credit programs and a number award as associate or baccalaureate degree, respectively.

Specialist's Assistant (S.A.)

As provided for in the new legislation, a Specialist's Assistant (S.A.) corresponds generally to the Type B physician's assistant as described by the National Academy of Sciences. The S.A., although possessing fewer clinical skills, is highly skilled in a group of clinical procedures which make up a specialized but limited clinical service. The S.A.s training is not as extensive or broad in the basic sciences, clinical sciences or clinical practice, but is more intensive in the practice and procedures appropriate to the specialized medical service for which he is trained.

The feature which distinguishes both the Physician's Assistant and the Specialist's Assistant from other health care assistants is that they work (professionally and organizationally) *directly under a physician and are directly supervised by him and responsible to him.*

2/76

STATE MEDICAL HANDBOOK

POLICIES AND STANDARDS

PHYSICIAN'S ASSISTANTS AND SPECIALIST'S ASSISTANTS

250.1 **General**

A. Chapters 1135 and 1136 of the laws of 1971 added new articles 131-A and 37 respectively to the State Education and Public Health Laws. These articles are concerned with qualifications, registration, and functions of physician's associate and specialist's assistants. A statement of legislative findings and purpose associated with the above legislation is included in section 1 of Chapter 1135. Therein it is stated:

> "The existing shortage of physicians and other persons possessing adequate qualifications for the provision of health services required by the people of this State constitutes a critical situation imperiling the public health. Many areas of the State lack adequate medical coverage due to the insufficient number and uneven distribution of practicing physicians. The demand for physician services far exceeds the capability of the present number of physicians to supply them. Physical limitations on the number of patients a physician can personally attend make the use of persons qualified to assist the physician in the provision of medical care essential if such care is to be uniformly available to all of the people of the state.
>
> "It is the purpose of this act to provide for the registration of physician's associate and specialist's assistants *who will be available for employment by physicians* to permit medical services to be given to persons not receiving them now and whose qualifications will assure that the health needs of patients are met properly." (italics used for emphasis)

B. The above statement of purposes makes specific reference to the "employment" of physician's associate and specialist's assistants by physicians. Section 6532 of the Education Law provides for employment of such ancillary personnel by facilities licensed as hospitals in accordance with article 28 of the Public Health Law and subject to provisions of the Education Law, the Public Health Law, the Rules and Regulations of the Commissioner of Health and the State Hospital Code.
(Ref.: Education Law Article 131A, Public Health Law Article 37, 10 NYCRR Parts 94 and 707)

C. The designation of "physician's associate" as established by Chapters 1135 and 1136 of the Laws of 1971, is changed to "physician's assistants" according to Chapter 210 of the Laws of 1975 effective June 17, 1975.

250.2 **Definitions**

A. *Registered physician's assistant* means an individual who is currently registered as a physician's assistant by the New York State Department of Education. The education, training, and experience of a registered physician's assistant, while including a basic core of didactic and clinical training in general medicine, may during some phase have emphasized activities, techniques, and procedures more commonly associated with a particular clinical field. Based on his education, training, and experience background, a registered physician's assistant will be identified in one or more of the following clinical fields at the time of his registration.

(1) Medicine. A registered physician's associate so identified is considered appropriate to work under the supervision of a qualified physician engaged in clinical practice.

(2) Surgery. A registered physician's assistant so identified is most appropriate to work under the supervision of a qualified physician engaged in a general or specialty surgical practice.

(3) Pediatrics. A registered physician's assistant so identified is most appropriate to work under the supervision of a qualified physician engaged in a pediatric practice.

(4) Obstetrics-gynecology. A registered physician's assistant so identified is most appropriate to work under the supervision of a qualified physician engaged in either an obstetric or gynecologic practice or both. (10 NYCRR 94.1(a))

B. *Registered specialist's assistant* shall mean an individual who has completed a program for the education and training of specialist's assistants, or its equivalent approved by the New York State Department of Education and who is currently registered as a specialist's assistant by the New York State Department of Education. (10 NYCRR 700.2(b)(29))

250.3 **Supervision and Scope of Duties** (Ref. State Education Law Section 6532 and 10 NYCRR 94.2)

A. *A registered physician's assistant or registered specialist's assistant may perform medical services but only when under the supervision of a physician.*

Such supervision shall be continuous but shall not necessarily require the physical presence of the supervising physician at the time and place where the services are performed.

B. Medical acts, duties, and responsibilities performed by a registered physician's assistant must:
(1) be assigned to him by the supervising physician;
(2) be within the scope of practice of the supervising physician; and
(3) be appropriate to the education, training, and experience of the registered physician's associate.

C. Medical acts, duties, and responsibilities performed by a registered specialist's assistant must:
(1) be assigned to him by the supervising physician;
(2) be within the scope of practice of the supervising physician; and
(3) be related to the designated medical specialty for which he is registered.

D. No physician may employ or supervise more than two registered physician's assistants and two specialist's assistants in his private practice.

E. *A physician* supervising or employing a registered physician's assistant or registered specialist's assistant *shall remain medically responsible for the medical services* *performed by the registered physician's assistant* or registered specialist's assistant whom such physician supervises or employs.

250.4 **Billing and Payment**

A. *In accordance with provisions of Section 6532 of the Education Law and Section 94.1 in the Administrative Rules and Regulations of the State Commissioner of Health, a registered physician's assistant or registered specialist's assistant is not recognized as an independent provider of service.* Therefore, such persons may not bill or receive payment for service as private practitioners and no separate fee schedules will be established for registered physician's assistant and registered specialist's assistants.

B. For services rendered by a registered physician's assistant or registered specialist's assistant and provided in accordance with paragraph 250.3 above, *the responsible physician is eligible for payment at fees established for physicians in the medical fee schedule.*

In billing for services provided through a registered physician's assistant or registered specialist's assistant in his employ, the physician shall identify the services so provided on his claim for payment and include the name of the registered physician's assistant or registered specialist assistant who rendered the service.

C. Services provided by a registered physician's assistant or registered specialist's assistant while in the employ of a hospital as defined in Article 28 of the Public Health Law are included in the all-inclusive rate developed for the facility and are not eligible for separate payment.

January 18, 1980

John H. Morton, M.D., *Chairman*
Council Com. on Workers' Compensation
and Occupational Health
Medical Society, State of New York

Dear John:

As per your request for an opinion relative to the Rochester-Genesee Orthopedics Group, P.C., our legal staff addressed a letter to Robert D. Stone, Esq., Deputy Commissioner for Legal Affairs with the State Education Department, the Division responsible for the PA program.

As you will note by the enclosed correspondence, their opinion does not allow for the utilization of the PA as envisaged by Carl Harris, M.D., President of the Group. Copies of these letters, as well as Dr. Harris's letter, will be included in the minutes of the WC & OH meeting which will be sent to the members of your committee.

This situation had been presented to the Council on January 17 and was again referred back to the committee for consideration and response.

May I take this opportunity of wishing you a Happy New Year.

Cordially,

William D. Brainin
Associate Director
Division of Medical Services

THE UNIVERSITY OF THE STATE OF NEW YORK
THE STATE EDUCATION DEPARTMENT
ALBANY, NEW YORK

January 14, 1980

Donald R. Moy, Esq
Staff Attorney
Medical Society of the
State of New York
420 Lakeville Road
Lake Success, NY 11040

Dear Mr. Moy:

Mr Stone has requested that I reply on his behalf to your letter of December 27, 1979.

I agree with your conclusion that the provisions of Education Law section 6542 subdivision 4 require that each physician's assistant be supervised by a particular physician on a continuing basis. Subdivision 4 of section 6542 provides that no physician in private practice shall employ or supervise more than two physician's assistants. Under these provisions a professional corporation could theoretically employ two physician's assistants for each physician in the firm. The physician supervising each physician's assistant would have to be clearly understood at any time. When a physician was absent for an extended period of time, it would, of course, be possible for the physician's assistants normally supervised by the absent physician to be temporarily transferred for supervision purposes to another physician. However the physician taking over the supervision of such physician's assistants would be subject to the limitation of subdivision 4 of section 6542. Consequently a firm which did in fact employ two physician's assistants for each physician in the firm would lack the flexibility to reassign physician's assistants under the circumstances described above.

The duties which could be performed by the physician's assistant in each case would be dependent upon the scope of practice of the supervising physician, and not upon the scope of practice of any physician in the professional corporation.

Sincerely yours,

Donald O. Meserve
Associate Attorney

December 27, 1979

Robert D. Stone, Esq.
Deputy Commissioner for Legal Affairs
New York State Department of Education
99 Washington Avenue
Albany, NY 12234

Dear Mr. Stone:

I am writing this letter at the request of physician members of a professional corporation for an opinion with regard to the hiring and utilization of physician's assistants by professional medical corporations or other medical groups.

Section 6542(1) provides that a physician's assistant may perform medical services, but only under the supervision of a physician and only when such acts and duties as are assigned to him are within the scope of practice of such supervising physician.

Section 6542(4) provides no physician shall employ or supervise more than two physician's assistants and two specialist's assistants in his private practice.

The inquiry regarding the applicability of the above provisions on a P.C. or other recognized form of medical group practice can be best stated with respect to a hypothetical P.C. Assume a medical P.C. consists of four physicians, each physician practicing a different area of medicine. The P.C. has hired eight physician's assistants. The following questions arise with respect to supervision and assignment of the physician's assistants.

1. Must each physician in the P.C. be assigned two specific physician's assistant, or, may the four physicians collectively supervise all eight of the physician's assistants? Under the former situation, any one physician's assistant may only perform such acts and duties as are assigned to him and within the scope of practice of the specific physician designated to be his supervising physician. Under the latter situation, any one of the eight physician's assistants in the P.C. may assist any one of the four physicians at any one given time. In this arrangement, any one of the physician's assistants could perform medical acts as long as the duties assigned are within the scope of practice of any one physician in the P.C.
2. Assuming the latter situation does not satisfy the requirements of section 6542, and the P.C. utilizes the arrangement whereby each physician supervises two specific physician's assistants, if one physician takes a vacation or extended leave, what medical services, if any, may the two physician's assistants perform in his absence?

As a second hypothetical, assume the four physician P.C. is involved in solely one medical discipline where each physician practices the same field of medicine. Are the answers to questions 1 and 2 the same? In other words, in a single discipline P.C. must each physician's assistant perform services only for the physician that he is specifically assigned to, or, may any one of the eight physician's assistants assist any one of the four physicians at any one time?

In the opinion of the undersigned, Article 131-B of the *Education Law* is strictly interpreted, and therefore, in a group medical practice, supervision of a physician's assistant must be done by a specific practitioner rather than the group collectively. However, it is requested that you render an opinion whether Article 131-B may be interpreted to permit a P.C. or group practice to follow either arrangement described in this letter.

I thank you for your anticipated reply.

Very truly yours,

Donald R. Moy, J.D.
Staff Attorney

APPENDIX "G"

December 21, 1979

Mr. Arthur Cooperman, Chairman
Workers' Compensation Board
2 World Trade Center
New York, NY 10047

Dear Mr. Cooperman:

The Medical Society of the State of New York is unable to comment on the November 15, 1979 draft from Milliman & Robertson, Inc., regarding a regionalized fee system for New York Workers' Compensation because of the incomplete information supplied. The appendixes list the sources but do not specify the particular table or data utilized from the individual sources in the compilation. It is necessary for a meaningful analysis to have such identification and preferably a copy of the tables used for each of the categories on which the conclusions were based.

Sincerely,

Max N. Howard, M.D.
Consultant
Division of Medical Services

APPENDIX "H"

December 21, 1979

Max N. Howard, M.D.
Consultant
Division of Medical Services
Medical Society of the State of
New York
420 Lakeville Road
Lake Success, NY 10042

Dear Max:

Enclosed is our review of the Milliman and Robertson report. We agree with you that it is impossible to fully analyze the report without Appendix 4. However, we have been able to get a good general idea of the procedures they used in developing the various indices, and our review highlights the fact that in many cases they imputed values when they had no data. Their description of the methods used in assigning missing values to cost data are sketchy at best and give the impression that subjective judgement was a major ingredient. The use of individual physician profiles in establishing fees would eliminate the problem of missing cost data for different geographical areas within the state.

We hope our review is helpful to you and that you have a very happy holiday season.

Sincerely,

Lynn E. Jensen, PhD

REVIEW OF "ANALYSES AND RECOMMENDATIONS CONCERNING A REGIONALIZED FEE SYSTEM FOR NEW YORK WORKERS' COMPENSATION"

BY MILLIMAN AND ROBERTSON, INC., CONSULTING ACTUARIES

Summary. This report was prepared for the New York Workers' Compensation Board by Milliman and Robertson, Inc., to advise the Board on ways of establishing regional fee differences in the Workers' Compensation Schedule of Medical Fees. Milliman and Robertson examined available data on surgical fees, family budget requirements, and medical practice expenses in order to assess intrastate differences in the costs of conducting a medical practice. According to the report, approximately twenty patterns of regionalization were investigated. Of these, three are described in the report. The pattern preferred by Milliman and Robertson breaks the state into four areas:

- New York City;
- the New York suburbs;
- upstate urban areas; and
- upstate rural areas.

According to the report, variations of 26 percent in medical practices expenses exist between New York City and upstate rural areas. Variations of 35 percent in family budget indexes exist between these same areas. Milliman and Robertson translate these differences into a recommended 30 percent differential in medical fees between New York City and the upstate rural areas, with smaller differentials among the other areas.

Comments. While the regional pattern and the fee differences proposed by Milliman and Robertson are generally plausible, it is difficult to check their calculations in detail. According to the report, detailed descriptions of data and methodology are contained in Appendix 4, which was not included in the copy of the report reviewed here. However, enough information is provided in the report to make the following comments regarding the proposed fee differentials.

Required Gross Income Index. This index constitutes the basis for the proposed fee differentials. It is a weighted average of the Medical Practice Expenses Index and the Family Budget Index. It is calculated separately for six specialty groups and each geographical area within a regional pattern.

Medical Practice Expense Index. This index is a weighted average of eight expense categories. Three categories — employee compensation, office space, and malpractice insurance premiums — typically accounted for about 75 percent of total expenses. The weights apparently were calculated for each specialty group using data from *Medical Economics* and the AMA's *Profile of Medical Practice.* It also seems that either national or census division data must have been used to compute the weights, since expense data are not published at any finer level of disaggregation in either of these sources.

Milliman and Robertson divided New York State into 21 areas based on zip codes. Since data for each of the eight expenses categories were not available for all of these areas, Milliman and Robertson assigned values for missing data. The methods used to assign missing values are not clearly described. However, statements made in Appendix 2 strongly suggest that personal judgements of the authors of the report were a major method of assigning missing values. The following additional points should be noted:

- Proxy variables were used for many expense categories. Examples: Bureau of Labor Statistics' (BLS) housing cost data were used as a proxy for office space costs; BLS intermediate level family budgets were used as a proxy for the costs of outside services, drugs, supplies, equipment, and other costs (see Appendix 3, number 3).
- The malpractice insurance premium data are probably the most reliable expense data used by Milliman and Robertson. Data from the Medical Liability Mutual Insurance Company were used.

Family Budget Index. The Family Budget Index was based on the BLS annual budget for a four person family at the "higher budget" level. *A major problem in applying BLS data to New York State is that budget levels are available only for New York City, Buffalo, and nonmetropolitan areas of the Northeast.* Paragraph 2 of page 31 indicates that the available BLS data were assumed to be representative of eight of the 21 zip code areas defined by Milliman and Robertson. In assigning values to the other 13 areas, Milliman and Robertson used the eight available numbers as benchmarks and graded "between those benchmarks based on various other cost data as available." This method has potential for a high degree of imprecision and subjective bias.

Surgical Fee Data. HIAA surgical fee data were the most geographically rich data available to Milliman and Robertson. They provided the basis for the 21 zip code areas into which Milliman and Robertson divided the state.

While Milliman and Robertson argue that the proposed fee differentials are based on cost differences, they state that a strong relationship exists between surgical fees and practice costs. As a result, the surgical fee data were used as a check on the cost data and as an indicator to be reviewed in assigning missing values for cost items.

Center for Health Services Research and Development, American Medical Association, December 1979.

APPENDIX "I"

March 19, 1980

Mr. Arthur Cooperman
Chairman
Workers' Compensation Board
2 World Trade Center
New York, NY 10047

Dear Mr. Cooperman:

You have requested the MSSNY to express an opinion regarding "Analyses and Recommendations Concerning a Regionalized Fee System for the New York Workers' Compensation" presented by the actuaries Milliman & Robertson, Inc. (M & R).

Although the MSSNY has not been a formal participant in the course of developing and conducting this study, it has been represented at a number of meetings when this matter was discussed and did supply a number of references germane to the study.

The draft of November 15, 1979 presented by M & R was not received by the MSSNY until November 25, 1979. After review the MSSNY felt that it could not adequately evaluate the draft without additional information, particularly the data sources that were used to arrive at the conclusions reached. A request for this information was made directly to M & R with the response that the contrast was with the Workers' Compensation Board and could not be given directly to the MSSNY. The need for such information was then verbally communicated to you, to the General Counsel, and to the Director of Research and Statistics of the WCB.

Dr. Howard of the MSSNY spent about three hours with the WCB statistician reviewing the apparent deficiencies and the material it was felt necessary to conduct satisfactory analyses of the draft. It was not until the morning of January 23 that, thanks to your direct intervention, M & R was authorized to furnish any material the MSSNY desired. This was followed by a direct request and the desired information was received late on January 28, 1980.

At the meeting on January 30, 1980 the MSSNY expressed its reservations in regard to the draft and this communication is to present those thoughts in writing.

We are not prepared to comment on the methodology used by M & R since there has not yet been time to have an actuary review the statistical formulas. We do have considerable reservation whether the national and regional data is applicable to the New York intrastate situation. It would be desirable to determine whether the regional and/or national patterns are valid for New York State on solid data, rather than by inference, best judgment, or proxy. We are not aware of any existing valid intrastate data. The gathering of such data is of great importance in the determination and promulgation of intrastate differentials, if such are to stand unchallengeable.

The above comments do not apply to the medical liability premium differentials within the State since these are confirmed and, in fact, were obtained from the Medical Liability Mutual Insurance Company, a company which, incidentally, was established by the MSSNY.

The utilization of national figures such as the AMA profile of practice, or the regional groupings, such as the middle Atlantic States or the Northeast region as reported in Medical Economics, is open to question as to their reliability when applied to New York State. Parenthetically, it should be noted that when in the course of negotiations for a fee schedule revision a year ago, the MSSNY presented data from the AMA profile of practice study, it was rejected by the representatives of industry, insurance carriers, and the Chairman of the Board as being "tainted" and "self-serving." It is somewhat paradoxical that these figures are now being used by the actuaries contracted by the WCB.

We are concerned that the dilution of a high-cost area such as New York State by including states such as Maine, Vermont, New Hampshire, New Jersey, and Pennsylvania, which have a much greater percentage of rural or suburban practice than New York, can have significant impact on the resulting findings.

In regard to the overhead expense factor, it would be more meaningful to use nurses' salaries, rather than those of clerical personnel, to arrive at the employee component in the physicians expenses. Overall, physicians are more likely to have a nurse in their office if they employ only one person. It is also felt that housing costs are not truly reflective of office rents that physicians must pay, particularly in the metropolitan areas of the State. Here again a better base line should be used.

The premiums for medical liability insurance are notoriously high in New York State and we are disturbed that the percentages arrived at come from large area sources rather than from within New York State. The dollar amounts are factual; the percentage that such amounts represent is what is at issue.

The cost of living percentage is derived from the Bureau of Labor statistics but such statistics do not include all the various regions of the State and, therefore, a judgemental decision was apparently used for a further breakdown. This may be reasonably accurate, but still raises doubts.

The conclusion that a check of surgical fees in the various regions of the State are parallel to the variations arrived at by the actuaries is one we do not quarrel with since the MSSNY on numerous occasions has stated that it is convinced that fees charged by physicians in different parts of the State are, in fact, reflective of the costs of practicing and living in the respective areas. However, the number of surgical procedures (6), and the types selected are not adequately representative of the type of surgery most important in the area of workers' compensation related medicine. Rather than using the frequency of procedures, it would be more meaningful to study those procedures which account for the greatest cost in the surgical section of the Workers' Compensation Medical Fee Schedule. A very obvious omission is that of hernia repairs, which add up to 20% of the total cost of all surgical procedures and 6% of the total paid physicians in the practice of workers' compensation.

Dividing the State into only four regions is not adequate for a State which has the wide differences that exist among the New York State communities. We are aware that the more regions established the greater the administrative burden, but we are of the opinion that a finer division would be more representative of the patterns within the State.

We believe that the questions raised above should be addressed. Accepting that the extant fees do in fact represent the cost factors of medical practice within the State lends strength to the oft repeated proposal by the MSSNY that if regional variations are to be established, that is the methodology to be used.

In broad general terms, the several factors to be addressed in establishing a fair and equitable fee schedule include a common or universal base value throughout the State for specific procedures or services, adjusted to reflect certification and other elements of expertise where appropriate, allowances for differences in practice expenses and cost-of-living expenditures in the several geographic areas that show distinct variations. We question whether the proposals in the acutary's draft embody all these elements.

The MSSNY has proposed, and again invites your consideration of, a method of payment that best attains the goal of a "Regionalized Fee System." It is less subject to criticism and rejection by physicians since it is individualized. It is based on the strong belief that a physician's fees reflect that physician's costs, and is practical because each physician in the State now has a profile based on the usual and customary fees submitted since 1965. It is thus not open-ended. The unusually high fees can be dealt with by a cut-off at the 90th percentile. Increases would be based on changes in overhead expense and cost-of-living factors.

The state-of-the-art of computerization is such that experts in the field assure us that it is a very feasible program. The entire list of services and procedures is entered as a relativity index. The fees for a number of the most commonly performed services of a physician establishes the conversion factor for that individual and is entered into the computer as a single entry.

The MSSNY proposal would thus differentiate not between artificial geographic boundaries, but singularize between physicians in the same building, for such, in fact, is the variation in physicians' charges. The method also avoids the weaknesses of any wide-area fixed fee schedule, namely the payment of more than usual sums to those with lower profiles and the non-participation of those who find the schedule uneconomical.

The Chairman has expressed, and demonstrated in a number of actions, that he wishes to effect a program that would result in wide and cooperative involvement by the physicians of the State so that the best possible quality of medical care will be readily available to all patients covered by the Workers' Compensation Law. That goal is one that the MSSNY wholeheartedly supports and our comments are offered in that vein.

Sincerely,

G. Rehmi Denton, M.D., *President*

APPENDIX "J"

May 22, 1980

Mr. Arthur Cooperman
Chairman
Workers' Compensation Board
2 World Trade Center
New York, NY 10047

Dear Mr. Cooperman:

In my letter dated March 19, 1980, responding to your request for our Society's comments on the Milliman and Robertson recommendation for a regionalized fee system, we requested additional information. That material was subsequently received and reviewed. It does not alter our reservations that the recommendation of the actuaries still has flaws that question its acceptability. We are still of the opinion that our proposal as set forth in the letter of March 19, 1980 has greater merit and urge you give it serious consideration.

The Milliman and Robertson source material is voluminous, but there is insufficient explanation of the methodology used to reach their various conclusions. Additionally, the application of extrapolation or best judgment to fill the gaps where New York State data is not available is questionable. To our knowledge, with the exception of liability insurance premiums, there is no valid intrastate data establishing the differences in physicians' overhead practice expenses in the various New York State areas. Utilizing regional or national amounts to address this want results in diluting the high cost New York area when commingled with low cost regions. The result is unsatisfactory for implementing a system that will have major fiscal impact on the medical profession in our State.

Accepting for the purpose of discussion that an explanation of the actuary's methodology was adequate, the end result would still be an unacceptable rigid regionalized fee system based on arbitrary geographic lines, on one side of which physicians are likely to be underpaid, on the other overpaid, in comparison to their customary fees. Such a capricious pattern engenders discontent and discourages the ready and wholehearted participation of physicians in the Workers' Compensation program, to the detriment of the New York State work force.

We again present what we consider the best solution to the problem, a payment mechanism based on an individual physician's fee profile. Fees vary considerably not only from major area to major area, but also within small zones, variations which are reflected in the profiles that have now existed since 1965. This plan would not only satisfy the intent of the Workers' Compensation Law that fees payable be in keeping with those that "prevail in the same community for similar treatment of injured persons of a like standard of living," but be the most acceptable to the greatest number of physicians. We have been assured by computer experts that the plan is feasible and practical. We do not believe that the result would materially augment costs, for our suggestion is neither open-ended nor an invitation to abuse for of all the health insurance plans extant, the New York State Workers' Compensation Law already provides the most comprehensive controls. The profiles referred to have also had controls placed upon them since 1975.

A cogent argument in favor of our proposal comes from the actuary you selected, who found in checking their conclusions that fees in different areas validated the regional factors it arrived at based on costs. Our Society's plan is even more compelling in that it refines this determination.

Our Society reiterates that it shares your purpose to provide ready accessibility to the best possible medical care for the working population of New York State. We believe the plan we have proposed will best achieve that end.

Sincerely,

G. Rehmi Denton, M.D., *President*

APPENDIX "K"

June 2, 1980

TO: Presidents of all County Medical Societies
Members, Workers' Compensation & Occupational Health Committee
Members, Interspecialty Committee
Executive Directors, County Medical Societies

FROM: Robert J. O'Connor, M.D., Director, Division of Medical Services

Enclosed is a copy of the Milliman and Robertson, Inc., report on Regionalization of workers' compensation fees throughout New York State. As you know, the Chairman of the Workers' Compensation Board, Arthur Cooperman, plans to implement this report in the near future.

There will be an addendum to the report which will be sent to you when received by us.

Further details on Regionalization will follow as we become aware of them.

APPENDIX "L"

NEW YORK STATE SOCIETY OF SURGEONS, INC.
New Hartford, New York

January 31, 1980

TO: Councilors and Trustees
Medical Society of the State of New York

Dear Doctor:

For your general information, the following resolution was passed by the Board of Directors of the New York State Society of Surgeons at its January 9, 1980 meeting.

We understand that this matter will be on the agenda for the next meeting of the Interspecialty Committee to be held on February 7, 1980.

WHEREAS, the New York State Society of Surgeons is the official organ of the Section on Surgery of the Medical Society of the State of New York; and

WHEREAS, the New York State Society of Surgeons never agreed to the 1975 Relative Value Scale; now, therefore,

BE IT RESOLVED, that the New York State Society of Surgeons unanimously opposes the adoption of the 1975 Relative Value Scale which is to be presented to the Interspecialty Committee on February 7, 1980; and

BE IT FURTHER RESOLVED, that the Workers' Compensation Fee Schedule be continued in its present form until the inequities are amicably revised in the 1975 Relative Value Scale.

Sincerely yours,

William O. Aikman, M.D., *President*

APPENDIX "M"

Section 1. Subdivision one of section thirteen-d of the workers' compensation law, as amended by chapter one thousand sixty-eight of the laws of nineteen hundred sixty, is amended to read as follows:

1. The medical society of the county in which the physician's office is located at the time or a board designated by such county society or a board representing duly licensed physicians of any other school of medical practice in such county shall investigate, hear and make findings with respect to all charges as to professional or other misconduct of any authorized physician as herein provided under rules and procedure to be prescribed by the medical appeals unit, and shall report evidence of such misconduct, with their findings and recommendation with respect thereto, to the chairman. *Failure to commence such investigation within sixty days from the date the charges are referred to the society by the chairman or submit findings and recommendations relating to the charges within one hundred fifty days from the date the charges are referred shall empower the chairman to appoint, as a hearing officer, a member of the board, employee, or other qualified hearing officer to hear and report on the charges to the chairman. A qualified hearing officer, who is neither a member of the board, or employee thereof shall be paid at a reasonable per diem rate to be fixed by the chairman.*

Such investigation, hearing, findings, recommendation, and report may be made by the society or board of an adjoining county upon the request of the medical society of the county in which the alleged misconduct or infraction of this chapter occurred, *subject to the time limit and conditions set forth herein.* The medical appeals unit [may] *shall* review the findings and recommendation of such medical society or board [and on] *or hearing officer appointed by the chairman upon* application of the *accused* physician [accused must do so], and may reopen the matter and receive further evidence. The findings, decision and recommendation of such society, board [and] *or hearing officer appointed by the chairman or* medical appeals unit shall be advisory to the chairman only, and shall not be binding or conclusive upon him.

§ 2. Subdivision twelve of section thirteen-k of such law, as added by chapter seven hundred eighty-seven of the laws of nineteen hundred fifty-two, is amended to read as follows:

12. Nothing in this section shall be construed as limiting in any respect the power of duty of the chairman to investigate instances of misconduct, either before or after investigation by the podiatry practice committee or to temporarily suspend the authorization of any podiatrist that he may believe to be guilty of such misconduct. *The provisions of subdivision one of section thirteen-d of this article which are not inconsistent with the provisions of this section shall be applicable as fully as if set forth herein.*

§ 3. Subdivision twelve of section thirteen-l of such law, as added by chapter nine hundred forty of the laws of nineteen hundred seventy-three, is amended to read as follows:

12. Nothing in this section shall be construed as limiting in any respect the power or duty of the chairman to investigate instances of misconduct, either before or after investigation by the chiropractic practice committee or to temporarily suspend the authorization of any chiropractor that he may believe to be guilty of such misconduct. *The provisions of subdivision one of section thirteen-d of this article which are not inconsistent with the provisions of this section shall be applicable as fully as if set forth herein.*

§ 4. This act shall take effect immediately.

APPENDIX "N"

SUFFOLK COUNTY MEDICAL SOCIETY
Hauppauge, New York

April 7, 1980

G. Rehmi Denton, M.D.
President
Medical Society State of New York
420 Lakeville Road
Lake Success, New York 11042

Dear Doctor Denton:

It has been suggested that the following problem be brought before the State Society's Executive Committee and/or Council.

We have found that in numerous instances a workers' compensation case that was treated totally in the hospital setting has gone to arbitration at the request of the workers' compensation carrier. In almost every instance the physician involved in the case is not notified of this situation and therefore does not get the chance to testify as to his course of treatment or length of stay determination. The results of the arbitration usually reduce the length of stay or change the code for the treatment rendered or even reject the method of treatment. This action on the part of the arbitration panel obviously reduces the fee which the physician is entitled to without his knowledge.

The Board of Directors believes this situation to be totally unjust and therefore requests that MSSNY take whatever steps are necessary or required to resolve this matter. It would seem that the easier course of action for MSSNY would be to insist that in any arbitration of a workers' compensation case all parties to that case, including all physicians involved, be notified and provided their "day in court" . . .

We would appreciate your notifying us of what action MSSNY intends to take on this matter and the results of that action.

Sincerely,

Stephen I. Braitman, M.D., *President*

APPENDIX "O"

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK
New York, N.Y.

March 19, 1980

Henry I. Fineberg, M.D.
Executive Vice President
Medical Society of the State of New York
420 Lakeville Road
Lake Success, N.Y. 11042

Dear Doctor Fineberg:

The Comitia Minora, at its meeting on March 10, 1980, approved the following recommendation submitted by the Committee on Workers' Compensation on the occasion of its meeting on February 19, 1980:

> "That the Medical Society of the County of New York express to the Medical Society of the State of New York, in negotiating with the chairman of the Workers' Compensation Board, that if differential fees are established within the State, Manhattan be designated a separate unit because costs are higher in Manhattan than anywhere else in the state."

Sincerely yours,

Virginia Kanick, M.D., *Secretary*

APPENDIX "P"

WORKERS' COMPENSATION
SCHEDULE OF RATES FOR THE PERIOD
JANUARY 1, 1980 THROUGH DECEMBER 31, 1980

Rates for Outpatient Services

Room other than operating room or operating room when used for minor surgery or emergency treatment:

For the medical service provided whether by employed staff, attending staff or by contractual arrangement with the physician groups the fee for this service is limited to the first visit fee of as appears on line 90010 of the Schedule of Medical Fees.	$13.00
For the hospital providing intern or resident staffing or by physician group contractual coverage the total fee is	$36.00
When the care is provided by an attending, the hospital fee is with the physician billing separately.	$23.00

Note: These fees include common or ordinary medications.

Crutches, mechanical splints and appliances	Rental or Sale at Cost
Plaster Cast and/or Splint	Cost of Plaster
Radium and deep therapy	A & A*
E.K.G., E.E.G., X-ray, P.T., and Laboratory Charges	Rates in Schedule of Medical Fees Promulgated by the Chairman, Workers' Compensation Board

Materials supplied by the Emergency Room (i.e. sterile trays, medications, etc.) over and above those usually included with the Emergency Room visit may be charged for separately. Itemize these on the bill submitted.

* "Authorization and Arrangement"

◆

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Committee on Workers' Compensation and Occupational Health be filed for information.

⟹ . . *The report of the Committee on Workers' Compensation and Occupational Health was* **FILED FOR INFORMATION** . . .

Resolution 80-35, Interest Paid on Unpaid Medical Bills Due From Third Party Payors

Introduced by Medical Society of the County of Queens

Whereas, The cost of medical care has increased sharply due to inflation; and

Whereas, The cost of rendering medical care has increased sharply due to rapidly increasing malpractice premiums; and

Whereas, There seems to be a tendency by third party reimbursers not to pay their bills promptly; therefore be it

Resolved, That the Medical Society of the State of New York seek to introduce and support legislation requiring third party payors to pay interest on unpaid bills of thirty days or more duration, such interest to be computed at the rate of $1\frac{1}{2}$% per month, retroactive to the date the bill was rendered.

PAST HOUSE ACTION: Resolution 78-29

◆

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

⟹ Your reference committee recommends that Resolution 80-35 be adopted.

⟹ . . . *The House voted to* **ADOPT** *Resolution 80-35* . . .

Resolution 80-3, Hospital Medical Liability Insurance Coverage

Introduced by Medical Society of the County of Kings

Whereas, Medical liability coverage for a hospital is a recognized, usual, reimbursable, and indispensable cost of providing hospital medical care; and

Whereas, Hospital corporations are not infrequently named as codefendants with physicians of their medical staff in alleged medical malpractice suits; and

Whereas, Uninsured or under-insured joint tort feasors represent a threat to the hospital's fiscal integrity; and

Whereas, Mandated medical staff medical liability insurance provides protection for the hospital and represents a form of involuntary medical staff assessment in favor of the hospital, which is considered unethical and deplored by organized medicine; therefore be it

Resolved, That the Medical Society of the State of New York take the position that hospitals that wish to protect their fiscal integrity against the possibility of the risk of loss as medical liability joint tort feasors with members of their medical staff, should themselves provide and pay for medical liability insurance coverage in their own hospital liability programs; and be it further

Resolved, That the New York Delegation to the American Medical Association be requested to introduce a resolution to that effect at the interim session of the AMA House of Delegates in December, 1980.

PAST HOUSE ACTION: Resolution 78-60

◆

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

The matter addressed in this resolution was considered in the House of Delegates in 1978 — Resolution 78-60, which was adopted as amended and which reads as follows:

Resolved, That the Medical Society of the State of New York urge that medical malpractice insurance coverage shall not be a mandatory requirement for hospital medical staff appointments; and be it further

Resolved, That all hospitals that require medical malpractice insurance of its voluntary professional staffs shall themselves be expected to carry liability insurance for each of its employees, and professional medical liability insurance for its professional employees including hospital salaried physicians in amounts equal to the limits of those of the majority of its voluntary medical staff members; and be it further

Resolved, That this resolution be presented at the next meeting of the House of Delegates of the American Medical Association for appropriate action.

Subsequently, it was presented by the New York Delegation to the AMA — Resolution 78(I-78) and the AMA Board of Trustees in reviewing the resolution submitted a report which was adopted in lieu of Resolution 78(I-78), which states in part —

> "The Board of Trustees also believes that if equity demands that voluntary staff members should have insurance coverage so that the burden of financial loss would not fall entirely upon the hospital, then salaried hospital physicians should likewise be covered by adequate insurance or protected financially through self-insurance mechanisms established by the hospital so that the burden would not fall unfairly upon the members of the voluntary medical staff."

⟹ The reference committee recommends affirmation of this position and that Resolution 80-3 be referred to the Council with a request that a mechanism be established to work for development of guidelines for use of medical boards that would enable them to evaluate the adequacy of hospital liability programs and that these guidelines be disseminated to the medical boards of hospitals throughout the State.

⟹ . . . *The House, after considerable discussion, affirmed the AMA Position and voted to* **ADOPT** *and* **REFER** *Resolution 80-3 to the Council* . . .

Resolution 80-25, Relevant Qualifications for Hospital Medical Staff Admission

Introduced by Robert M. Kohn, M.D., Delegate, Section on Internal Medicine

Resolved, That it is the policy of the Medical Society of the State of New York that admission to a hospital medical staff should be by an impartial review of an applicant physician's relevant qualifications, and that mere membership in a closed panel HMO or other group shall not be a substitute for such review of the individual's qualifications.

◆

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

The Committee amended Resolution 80-25 by inserting the phrase "by a medical staff credentials committee" and the word "any" and deleting the words "mere" and "such" and the phrase "a closed panel HMO or other." The Resolved portion would then read as follows:

Resolved, That it is the policy of the Medical Society of the State of New York that admission to a hospital medical staff should be by an impartial review by a medical staff credentials committee of an applicant physician's relevant qualifications, and that membership in any group shall not be a substitute for review of the individual's qualifications.

⟹ Your reference committee recommends that Resolution 80-25 be adopted as amended.

After discussion, the House amended Resolution 80-25 by substituting the word "procedure" for the word "committee" and deleting the word "physician's." The Resolved portion of Resolution 80-25 would then read as follows:

Resolved, That it is the policy of the Medical Society of the State of New York that admission to a hospital medical staff should be by an impartial review by a medical staff credentialing procedure of an applicant's relevant qualifications, and that membership in any group shall not be a substitute for review of the individual's qualifications.

⟹ . . . *The House voted to* **ADOPT** *Resolution 80-25 as* **AMENDED** *and* **AMENDED** . . .

Resolution 80-18, Patient Access Rules Under Individual Practice Associations

Introduced by Norman B. Kanof, M.D., Delegate, Section on Dermatology and Syphilology

Whereas, A trend is developing in the State of New York and in other states, to establish "Open Panel" HMOs (also known as Individual Practice Associations or IPAs) as an alternative to "closed panel" HMOs; and

Whereas, Rules governing the operation of these "individual practice associations" may create a precedent in provision of medical services to patients; and

Whereas, Proposed rules eliminate "direct access" of a patient to a non-primary care physician and require referral to so-called primary care physicians before a patient can see a physician in such specialties as allergy, dermatology, ophthalmology, orthopedics, and urology; and

Whereas, Patients/subscribers in such plans will no longer have free choice of physician; and

Whereas, The free choice of physician inherent in "direct access" has been a long-standing tradition in the practice of medicine and deleting this free choice is a major change in the provision of medical services which should not be minimized; and

Whereas, Eliminating "direct access" may lead to delay in patients obtaining the most appropriate treatment for an illness; therefore be it

Resolved, That the House of Delegates of the Medical Society of the State of New York endorse the concept of direct access by patients in "Open Panel" HMOs (such as IPAs) to all physicians participating in the programs.

◆

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

Your reference committee recommends that Resolution 80-18 be not adopted. The Medical Society of the State of New York has always been on record as supporting the concept of free choice by both the patient and the physician. However, patients exercise free choice when they elect to participate in a particular medical care program; physicians exercise their free choice when they decide to participate in a program. These relationships are contractual according to the terms of the insurance program.

⟹ Your reference committee recommends that Resolution 80-18 be not adopted.

⟹ . . . *The House voted to* **NOT ADOPT** *Resolution 80-18* . . .

Resolution 80-4, Payment of the Primary Care Physician for Concurrent Care in the Hospital

Introduced by Medical Society of the County of Kings

Whereas, It is a hospital mandated responsibility and the desire of most patients for the primary care physician to attend and care for his hospitalized patient on a daily basis; and

Whereas, It is the responsibility of the primary care physician to request necessary concurrent professional care for his hospitalized patient when in his on-site professional judgment it is in the best interest of his patient; and

Whereas, Physician's fees for the daily professional and administrative concurrent care services rendered to the patient by the primary care physician have been denied retrospectively and by bureaucratic fiat; and

Whereas, It should be the designated legal responsibility and authority of the primary care physician, as "Captain of the Concurrent Medical Care Team," to determine and designate what are concurrent care physician's services and how long these are required in the best interest of the patient; therefore be it

Resolved, That the Medical Society of the State of New York take the position that the primary care physician shall, by law, be designated to have the legal responsibility and authority to monitor the concurrent care of his patient as "Captain of the Concurrent Medical Care Team," for which he shall continue to render and receive payment for the daily administrative and professional services, based on his on-site determination and professional judgment in the best interest of the patient; and be it further

Resolved, That the Medical Society of the State of New York and the American Medical Association seek an administrative ruling to provide and pay for these roles and services to the hospitalized patients of the primary care physician under Medicare, Medicaid, and other government and third party medical insurance programs, regardless of what other professional care is concurrently needed by the patient; and be it further

Resolved, That the New York Delegation to the American Medical Association be requested to introduce a similar resolution at the 1980 interim session of the AMA House of Delegates.

◆

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

There are already provisions for payment for concurrent care when a physician plays an active role in a patient's treatment and diverse physicians' services are required and documented. Therefore, your reference committee recommends that Resolution 80-4 be not adopted.

⟹ . . . *The House, after considerable discussion, voted to* **REFER** *Resolution 80-4 to the Council* . . .

Resolution 80-9, Medicare Coverage for Geriatric Mental Disorders

Introduced by Westchester County Medical Society

Whereas, The increasing number of elderly people exacerbates the incidence of organic brain syndrome and produces a greater need for proper placement and adequate care for such disorders; and

Whereas, The Medicare program is increasingly reluctant to reimburse psychiatric hospitals for evaluation of organic brain syndrome and subsequent placement, thus discouraging such institutions from admitting patients with OBS; and

Whereas, Medicaid in New York State reimburses hospitals in full for such patients who qualify under Title XIX; therefore be it

Resolved, That the Medical Society of the State of New York

go on record as deploring the discriminatory practice of disallowing Medicare coverage for geriatric mental disorders since such exclusions prevent proper diagnosis, evaluation, and recommendations for therapy of organic brain syndrome patients; and be it further

Resolved, That the Medical Society of the State of New York institute actions to halt such reimbursement denials where in the opinion of a physician proper care for organic brain syndrome patients can best be done in psychiatric hospitals; and be it further

Resolved, That the American Medical Association and interested Specialty Societies be informed of our actions and efforts to ameliorate this unfortunate situation and requested to assist us in this endeavor.

Fiscal Note: Probably none.

PAST HOUSE ACTION: Resolution 72-48

◆

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

Your reference committee has considered Resolution 80-9 and is of the opinion that health insurance payments should be determined by the medical needs of a patient and not on the physical location of a patient. The Committee wishes to present the following substitute resolution.

Resolved, That the Medical Society of the State of New York go on record as deploring the discriminatory practice of disallowing Medicare coverage for geriatric mental disorders since such exclusions prevent proper diagnosis, evaluation, and the recommendations for therapy of organic brain syndrome patients; and be it further

Resolved, That the Medical Society of the State of New York support the concept that reimbursement for such conditions be determined on a case to case basis taking into consideration the professional opinions of the attending physicians; and be it further

Resolved, That the New York State Department of Mental Hygiene and Retardation be informed of the Medical Society of the State of New York's position and be requested to formulate and establish regulations embodying the intent of this resolution.

Your reference committee believes this matter needs further study as a complex matter dealing with a group of patients who receive inadequate care because of the problems they engender.

⟹ Your reference committee recommends the adoption of the substitute resolution for Resolution 80-9.

⟹ . . . *The House, after discussion, voted to* **ADOPT** *Resolution 80-9* . . .

Resolution 80-13, Creation of a Medicaid Committee of the Medical Society of the State of New York

Introduced by Bronx County Medical Society

Whereas, Enrollment of physicians as providers of medical services under the Medicaid Program of the State of New York has increased; and

Whereas, Levels of reimbursement to physicians for services rendered to participants in the Medicaid Program remains inadequate; and

Whereas, The State of New York has become extensively involved in the audit of physicians and enforcement of Medicaid regulations; and

Whereas, Physicians enrolled in the Medicaid Program are experiencing difficulty voicing their objections to the manner in which the Medicaid Program is being conducted, and there is a lack of any coordinated effort on the part of the medical community to participate in the formulation of Medicaid Program policies in the State of New York; therefore be it

Resolved, That the Medical Society of the State of New York create a free-standing Medicaid Committee to represent the interests of Medicaid recipients and physicians who are enrolled as providers of services in the Medicaid Program of the State of New York.

PAST HOUSE ACTION: Substitute Resolution 79-6

◆

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

The Committee amended Resolution 80-13 by substituting the word "Statewide" for the words "free standing" in the first Resolved and adding a second Resolved. The Resolved portion would then read as follows:

Resolved, That the Medical Society of the State of New York create a Statewide Medicaid Committee to represent the interests of Medicaid recipients and physicians who are enrolled as providers of services in the Medicaid Program of the State of New York; and be it further

Resolved, That such Committee be empowered to enter into negotiations with State authorities relative to the problems of Title XIX.

Your reference committee noted that the Medical Care Insurance Committee is recommending to the Council that the Statewide Committee on Medicaid be formed and we endorse this concept.

⟹ Your reference committee recommends that Resolution 80-13 be adopted as amended.

⟹ . . . *The House, after discussion, voted to* **ADOPT** *Resolution 80-13 as* **AMENDED** . . .

Resolution 80-10, Medicaid Reimbursement

Introduced by Westchester County Medical Society

Whereas, Reimbursement rates received by physicians who render medical care under the Title XIX program are ludicrously low and have not been increased since 1966; and

Whereas, Many physicians, who have attempted to render medical service in the program in good faith, have been forced to withdraw because remuneration received has not kept pace with economic conditions; and

Whereas, This loss of physicians' participation has resulted in Title XIX recipients receiving treatment in Emergency Rooms and Outpatient Clinics of hospitals that cost five to six times what the care would cost in a private physician's office; and

Whereas, Treatment under these circumstances destroys the personal relationship which exists between a private physician and his patient; and

Whereas, Proposed increases are but token and grossly inadequate and in fact increase the discrepancy in reimbursement between physician and hospital; therefore be it

Resolved, That discussions relative to increasing Medicaid reimbursement continue at an accelerated pace between the government of the State of New York and the Medical Society of the State of New York; and be it further

Resolved, That proposed increases more closely resemble usual and customary fees; and be it further

Resolved, That if the discussions are not productive in a reasonable time period, MSSNY inform the membership in a clear and forthright manner.

PAST HOUSE ACTION: Substitute Resolution 79-6
Resolution 79-42
Substitute Resolution 76-31

and

Resolution 80-26, Equitable Reimbursement Schedule in Medicaid

Introduced by Robert M. Kohn, M.D., Delegate, Section on Internal Medicine

Resolved, That the Medical Society of the State of New York, in consort with other appropriate organizations seek such legislative or regulative changes as indicated to insure a more favorable and equitable reimbursement schedule in the Medicaid system similar to the usual, customary, and reasonable formula.

PAST HOUSE ACTION: Substitute Resolution 79-6
Resolution 79-42
Substitute Resolution 76-31

■

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

Your reference committee took note of the fact that the Medical Society of the State of New York has been vigorously pursuing the goal sought by Resolutions 80-10 and 80-26. These efforts must continue. Therefore, your reference committee recommends that Resolutions 80-10 and 80-26 be referred to the Council for referral to the new Committee on Medicaid, the formation of which was recommended in Resolution 80-13.

⟹ Your reference committee recommends that Resolutions 80-10 and 80-26 be adopted and referred to the Council.

. . . After discussion, the House amended Resolution 80-10 by adding an additional Resolved. The Resolved portion of Resolution 80-10 would then read as follows:

Resolved, That discussions relative to increasing Medicaid reimbursement continue at an accelerated pace between the government of the State of New York and the Medical Society of the State of New York; and be it further

Resolved, That proposed increases more closely resemble usual and customary fees; and be it further

Resolved, That if the discussions are not productive in a reasonable time period, MSSNY inform the membership in a clear and forthright manner; and be it further

Resolved, That the House of Delegates specifically authorize the Council to instigate legal action if the Council deems it necessary.

⟹ *. . . The House, after discussion, voted to* **ADOPT** *Resolution 80-10 as* **AMENDED,** *and* **REFER** *amended Resolution 80-10 to the Council . . .*

. . . The House voted to **ADOPT** *and* **REFER** *Resolution 80-26 to the Council . . .*

Resolution 80-21, Use of Ambulatory Care Facilities for Diagnostic Studies, Evaluations, and Treatment

Introduced by Leonard Weitzman, M.D., Delegate, Second District Branch

Whereas, The Medical Society of the State of New York supports health insurance programs which deliver the highest quality of medical care at the lowest cost per unit of such care; and

Whereas, Health economists agree that diagnostic studies can be done at a lesser cost on an ambulatory basis; therefore be it

Resolved, That the House of Delegates of the Medical Society of the State of New York affirm the position that diagnostic studies for evaluation of illness can be performed more effectively and at a lesser cost on an ambulatory basis; and be it further

Resolved, That this House of Delegates condemn any and all health insurance programs or plans which encourage the use of hospital admissions for diagnostic studies either with coverage in full or with a deductible provision; and be further

Resolved, That this House of Delegates encourage the use of ambulatory care facilities for diagnostic studies, evaluations, and treatment whenever the patient's condition permits.

■

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

The Committee amended Resolution 80-21 by inserting the word "some" and deleting the word "more" in the first Resolved and by inserting substitute Resolveds for the second and third Resolveds. The Resolved portion would then read as follows:

Resolved, That the House of Delegates of the Medical Society of the State of New York affirm the position that diagnostic studies for evaluation of some illness can be performed effectively and at a lesser cost on an ambulatory basis; and be it further

Resolved, That the Medical Society of the State of New York encourage increased use of outpatient facilities, and use of these facilities for diagnostic testing prior to hospitalization whenever medically feasible, whether private office, clinic, HMO, or other ambulatory setting; and be it further

Resolved, That an insured's health plan provide for equal payment wherever the necessary services are performed.

⟹ *Your reference committee recommends that Resolution 80-21 be* **ADOPTED** *as* **AMENDED.**

The House amended Resolution 80-21 to read as follows:

Resolved, That the House of Delegates of the Medical Society of the State of New York affirm the position that diagnostic studies for evaluation of some illnesses can be performed effectively and at a lesser cost on an ambulatory basis; and be it further

Resolved, That the Medical Society of the State of New York encourage use of outpatient facilities, and use of these facilities for diagnostic testing instead of hospitalization whenever medically feasible, whether in a private office, clinic, HMO, or other ambulatory setting; and be it further

Resolved, That an insured's health insurance plan should provide for equal payment and equal deductibles whenever the necessary services are performed in or out of the hospital; and be it further

Resolved, That a copy of this resolution be forwarded with recommendations to the Commissioner of Insurance of the State of New York.

⟹ . . . *The House, after considerable discussion, voted to* **ADOPT** *Resolution 80-21 as* **AMENDED** *and* **AMENDED** . . .

Resolution 80-22, Third Party Reimbursement for Pre-Operative Consultations and Supportive Studies

Introduced by Robert M. Kohn, M.D., Delegate, Section on Internal Medicine

Resolved, That the Medical Society of the State of New York shall work with appropriate organizations and government authorities to seek changes in legislation and/or regulations to promote third-party reimbursement for pre-operative consultations and supportive studies to a physician, whether performed in or out of the hospital, with the consulting physician expected to provide the hospital with all necessary documentation.

PAST COUNCIL ACTION: New York Resolution
Referred to the
AMA 127(A-79)

■

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

Your reference committee felt that this important matter required further study in view of the fact that the consultant may not be a member of the hospital staff and there would be a lack of control over the quality of diagnostic work done outside the hospital. Since the pre-admission findings become part of the hospital record, the hospital is as responsible for their accuracy as the work done in-house. Therefore, since there are no adequate controls to address the problem, this Committee goes on record in recommending referral to the Council for further investigation and study.

⟹ Your reference committee recommends that Resolution 80-22 be referred to the Council.

The House amended Resolution 80-22 by inserting the words "qualified and credentialed" in the Resolved portion. The Resolved portion would then read as follows:

Resolved, That the Medical Society of the State of New York shall work with appropriate organizations and government authorities to seek changes in legislation and/or regulations to promote third-party reimbursement for pre-operative consultations and supportive studies to a qualified and credentialed physician, whether performed in or out of the hospital, with the consulting physician expected to provide the hospital with all necessary documentation.

⟹ . . . *The House, after considerable discussion, voted to* **ADOPT** *Resolution 80-22 as* **AMENDED** . . .

Resolution 80-52, Updating Reimbursement in Blue Shield Plans

Introduced by Suffolk County Medical Society

Whereas, Blue Cross-Blue Shield is presently offering health insurance programs to the public which date back as late as 1956 for the Blue Shield portion; and

Whereas, Their most recently published fee schedule book for payment of physicians' and surgeons' fees is dated 1972; and

Whereas, This leads the public to the false impression that their health insurance coverages under Blue Shield are adequate and meet 1980 standards; therefore be it

Resolved, That the Medical Society of the State of New York formally request that Blue Cross-Blue Shield, through all of its subdivisions in New York State, —

1) inform the public that the Blue Shield portion of several of the plans they presently offer are inadequate in their reimbursement and not in keeping with today's health care costs; and

2) eliminate these inadequate plans and replace them with fee schedules which are in keeping with today's costs of practicing medicine, which reflect the physicians' usual and customary charges.

■

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

The Committee cannot agree with the resolution for several reasons. The resolution does not distinguish among the various Blue Cross/Blue Shield types of plans that are available. Many group organizations throughout the State contract for group coverage. In such cases the subscriber list is maintained by them and not released to Blue Shield. Additionally, these groups sometimes select plans with low premiums as a cost-saving mechanism, even though the contractor is aware that less than full coverage is provided.

⟹ Your reference committee recommends that Resolution 80-52 be not adopted.

The House amended Resolution 80-52 by deleting the words "several of" and inserting the phrase "$4,000–$6,000, $7,000–$8,500, and Executive Indemnity." The Resolved portion would then read as follows:

Resolved, That the Medical Society of the State of New York

formally request that Blue Cross-Blue Shield of Greater New York through all of its subdivisions in New York State, —

1) inform the public that the Blue Shield portion of the $4,000-$6,000, $7,000-$8,500, and Executive Indemnity plans they presently offer are inadequate in their reimbursement and not in keeping with today's health care costs; and
2) eliminate these inadequate plans and replace them with fee schedules which are in keeping with today's costs of practicing medicine, which reflect the physicians' usual and customary charges.

⟹ . . . *The House, after discussion, voted to* **REFER** *Resolution 80-52, the amended resolution, and discussion in the House pertinent to this matter to the Council . . .*

Resolution 80-19, Usual, Customary, and Reasonable Fees for Workers' Compensation Reimbursement

Introduced by Eighth District Branch

Whereas, The Chairman of the New York State Workers' Compensation Board has announced his intention to establish geographic region fee schedules for physicians who treat patients under the Workers' Compensation Law; and

Whereas, The Medical Society of the State of New York has informed the Chairman that it is opposed to regionalization of fees along strictly geographic lines and that fees in this program should be paid on a usual, customary, and reasonable basis; and

Whereas, the Eighth District Branch goes on record in noting that this geographic regionalization is unfair, unsatisfactory, and counterproductive to the general social attitude that rural areas are not generally underserved by physicians; therefore be it

Resolved, That the establishment of usual, customary, and reasonable fees based on individual physician's fee profiles would best satisfy the intent of the Workers' Compensation Law that fees be in keeping with those that "prevail in the same community for similar treatment of injured persons of a like standard of living"; and be it further

Resolved, That the Medical Society of the State of New York initiate appropriate legal action to compel the Chairman to act in accordance with the Workers' Compensation Law in the setting of fees for services of physicians; and to prevent the implementation of the Chairman's proposed geographic region fee plan.

PAST HOUSE ACTION: Substitute Resolution for Resolutions 78-32 and 78-39
Substitute Resolution 78-40
Amended Resolution 79-23

and

Resolution 80-45, Elimination of Workers' Compensation Board Fee Schedule and Substitution of Usual, Customary, and Reasonable Fees

Introduced by John D. States, M.D., Delegate, Section on Orthopaedic Surgery

Whereas, The New York State Workers' Compensation Law mandates that the President of the Medical Society of the State of New York shall submit to the Chairman of the Workers' Compensation Board, a report on the amount of remuneration deemed by such Society to be fair and adequate; and

Whereas, A large number of other states in the United States do not have WCB Fee Schedules, and instead allow usual, customary, and reasonable fees; therefore be it

Resolved, That the President of the Medical Society of the State of New York shall recommend to the Chairman of the Workers' Compensation Board that the existing WCB Fee Schedule be eliminated and usual, customary, and reasonable fees be allowed.

PAST HOUSE ACTION: Substitute Resolution for Resolutions 78-32 and 78-39
Resolutions 76-29, 72-73, 69-37, and 69-20

◆

⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

Inasmuch as the intent of these resolutions have been embodied in the substitute resolution for Resolution 78-32, Fixed Professional Fee Schedules, and Resolution 78-39, Medical Fee Schedule to be Eliminated for Treatment of Workers' Compensation Cases, your reference committee recommends that the substitute resolution for resolutions 78-32 and 78-39 be reaffirmed in lieu of Resolution 80-19 and Resolution 80-45. The Resolved portion of the substitute resolution reads as follows:

Resolved, That the Medical Society of the State of New York disapprove fixed fee schedules and seek the adoption of payments based on usual, customary, and reasonable fees in all negotiations relating to fees.

Your reference committee noted that the substitute resolution for Resolutions 78-32 and 78-39 addressed the issue that we are concerned with and, therefore, your reference committee would like to present a substitute resolution which embodies the salient factors of Resolutions 80-19 and 80-45. The substitute resolution would read as follows:

Resolved, That the Medical Society of the State of New York disapprove fixed fee schedules and seek the adoption of payments based on usual, customary, and prevailing fees in all negotiations relating to fees where such negotiations are mandated by governmental agencies.

⟹ Your reference committee recommends that the substitute resolution for Resolutions 80-19 and 80-45 be adopted.

⟹ . . . *The House, after discussion, voted to* **ADOPT** *the substitute resolution in lieu of Resolutions 80-19 and 80-45 . . .*

Resolution 80-38, Compensation for Injured Employees on a Partial Disability Status

Introduced by Medical Society of the County of Queens

Whereas, A large number of the residents of the county of Queens are middle class workers who own their own homes and whose life styles are adjusted to their regular salaries; and

Whereas, An injured worker receives as compensation fixed levels of income, depending on his disability status; and

Whereas, Such worker, whose weekly benefit is $215.00 when totally disabled, has such reduced to $105.00 or less when partially disabled; and

Whereas, This imposes great financial hardship on the injured employee; and

Whereas, The obvious intent of the Workers' Compensation Law is to enable the injured employee to receive sufficient compensation to maintain himself while he is disabled; therefore be it

Resolved, That the Medical Society of the State of New York seek to introduce and support legislation which will mandate that, under conditions of partial disability the amount of compensation received by the injured worker shall be based upon his previous earnings and other sources of income within the family.

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⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman*.

At the request of the Queens County Medical Society, your reference committee recommends that this resolution be withdrawn.

⟹ *. . . The House voted to allow the introducer of the resolution to* **WITHDRAW** *Resolution 80-38 . . .*

Resolution 80-41, Reopening Closed Workers' Compensation Board Cases

Introduced by John D. States, M.D., Delegate, Section on Orthopaedic Surgery

Whereas, Provisions in the Workers' Compensation Law provide that closed cases may be reopened upon application showing change in condition sufficient to warrant such reopening; and

Whereas, The Workers' Compensation claimant, whose case has been closed, is personally responsible for any future medical care, billed at usual, customary, and reasonable rates, unless the case is reopened; and

Whereas, Charges made by physicians for examining such claimants for reopening purposes are generally made at usual, customary, and reasonable rates; and

Whereas, All such cases require attendance at a hearing by the physician filing the C27 form, with payment at rates set by the Workers' Compensation Board for active cases; and

Whereas, Current Workers' Compensation Board procedure is grossly unfair since it is acknowledged by all that the rates for attendance at such hearings are grossly inadequate and do not compensate the physician adequately for loss of time, cost and time lost in travel, and level of fee for expert testimony; and

Whereas, Current WCB procedure is contrary to the intent of the Workers' Compensation Law, which is to provide the individual with the same medical care that is available to him in the community in which he lives, if he were a private patient; therefore be it

Resolved, That the Medical Society of the State of New York attempt to introduce and support legislation and/or seek changes in the rules which will clearly state that physicians required to examine claimants for the reopening of cases shall be paid usual, customary, and reasonable rates by the Workers' Compensation Board for the appropriate examinations and reports necessary to arrive at an opinion to reopen the case.

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⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman*.

The Committee amended Resolution 80-41 to read as follows:

Resolved, That the Medical Society of the State of New York attempt to introduce and support action and seek legislative changes which will clearly state that if said case is reopened the physician who has examined the claimant for such reopening shall be paid usual, customary, and prevailing rates by the compensation insurance carrier.

⟹ *. . . The House, after discussion, voted to* **ADOPT** *Resolution 80-41 as* **AMENDED** *. . .*

Resolution 80-42, Elimination of Workers' Compensation Board Ratings for Physicians Treating WCB Patients

Introduced by John D. States, M.D., Delegate, Section on Orthopaedic Surgery

Whereas, Certain provisions in the Workers' Compensation Law are antiquated and in some instances may actually be detrimental to the public welfare; and

Whereas, The rating system of specialists is now based principally on Board certifications by nationally recognized qualifying bodies; and

Whereas, The license to practice medicine in every state of the Union but New York State is the license to treat Workers' Compensation claimants; and

Whereas, The Chairman of the Workers' Compensation Board has found it increasingly difficult to cope with the problems presented by these three sections of the law; therefore be it

Resolved, That the Medical Society of the State of New York support legislation, or take other action to eliminate Workers' Compensation Board physician qualification requirements, except a valid New York State medical license.

PAST HOUSE ACTION: Resolution 78-37

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⟹ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman*.

The Committee recommends that the Resolved portion of this resolution be amended to read as follows:

Resolved, That the Medical Society of the State of New York

support legislation, or take other action, to eliminate Workers' Compensation Board physician qualification requirements and accept a valid New York State medical registration and license. These physicians, duly registered and licensed, should be permitted to treat all patients in accordance with established medical standards.

This particular resolution was researched by the Committee and the following information was brought to the attention of the reference committee:

The Reference Committee on Medical Services in its report to the House of Delegates in 1978 noted that the constitutionality of this provision of the Workers' Compensation Law was challenged in the courts at the time of its enactment and was ruled constitutional by the highest court in the State. The MSSNY Council, at its meeting on June 21, 1979, approved the concept and referred this resolution to the Committee on State Legislation for implementation. It must be noted that the State Legislation Committee is monitoring the situation and will raise the issue when the climate is favorable. Therefore, your reference committee recommends that Resolution 80-42 be adopted as amended.

⇒ . . . *The House voted to* **ADOPT** *Resolution 80-42 as* **AMENDED** . . .

Resolution 80-43, Equalization of Fees Paid to Physicians and Consultants Treating and/or Examining Workers' Compensation Patients

Introduced by John D. States, M.D., Delegate, Section on Orthopaedic Surgery

Whereas, Fees paid to treating physicians and to consultants requested by the treating physician, or by the patient, are strictly regulated by the Workers' Compensation Board Fee Schedule; and

Whereas, Consultants requested by insurance carriers to examine WC patients for the purposes of treatment or disability evaluations are paid a negotiated fee for their examinations and subsequent testimony far in excess of that allowed by the WCB Fee Schedule; and

Whereas, This places the Workers' Compensation patient in a disadvantaged position because he cannot obtain consultants or treating physicians of comparable ability and standing; and

Whereas, The treating physician and his consultants, or those of the patient's are unjustly penalized, although they may be of equal ability or standing to the consultants selected by the carriers; therefore be it

Resolved, That the Medical Society of the State of New York take appropriate steps to see that fees paid to all physicians treating, examining or testifying for Workers' Compensation patients are similar to those paid to physician consultants requested by insurance carriers.

PAST HOUSE ACTION: Resolution 76-48

■

⇒ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

Your reference committee noted that it has always been the position of the Medical Society of the State of New York that any contractual negotiations between a physician and insurance carriers relative to fees is determined by mutual consent rather than outside agencies. Therefore, your reference committee recommends that Resolution 80-43 be not adopted.

⇒ . . . *The House voted to allow the introducer of the resolution to* **WITHDRAW** *Resolution 80-43* . . .

Resolution 80-44, Notification of Results of Hearings

Introduced by John D. States, M.D., Delegate, Section on Orthopaedic Surgery

Whereas, The results of hearings by regulation are sent to interested parties who are named to be the claimant, his representative, the carrier, the employer; and

Whereas, The physician treating the patient, whose medical reports form the basis on which an opinion is rendered by the presiding referee, is obviously an interested party; and

Whereas, At the present time routine notification of the results of hearings are not sent to the physician, nor is his name included as an interested party; therefore be it

Resolved, That the Medical Society of the State of New York seek to introduce and support legislation and/or changes in the Workers' Compensation Board regulations which will mandate that the results of all refereed hearings be sent to the treating physician and/or consultants.

PAST HOUSE ACTION: Resolution 77-51

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⇒ *Report of the Reference Committee on Medical Services:* The following report was presented by Tamarath K. Yolles, M.D., *Chairman.*

Your reference committee noted that the intent of this resolution is contained in Resolution 77-51, FAILURE TO NOTIFY TREATING PHYSICIAN AND INTERESTED PARTY IN COMPENSATION HEARINGS, the Resolved portion of which reads as follows:

Resolved, That the Medical Society of the State of New York petition the Chairman of the Workers' Compensation Board to modify the regulations to mandate notification of decisions and awards be sent to treating physicians and other interested physicians; and be it further

Resolved, That, if in the opinion of counsel legislation to this effect is required, the House of Delegates authorize the Medical Society of the State of New York to seek introduction of such legislation, and urgently press for its passage.

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⇒ Your reference committee recommends that Resolution 80-44, which reaffirms the above position, be referred to the Council.

⇒ . . . *The House voted to* **REAFFIRM** *Resolution 77-51 in lieu of Resolution 80-44* . . .

⇒ . . . *The House voted to* **ACCEPT** *the report of the reference committee as acted upon by the House* . . .

GOVERNMENTAL AFFAIRS AND LEGAL MATTERS

COMMITTEE TO EVALUATE THE SERVICES OF OUR LEGISLATIVE CONSULTANTS (LOBBYISTS) IN ALBANY

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee to Evaluate the Services of Our Legislative Consultants (Lobbyists) in Albany are as follows:

George L. Collins, Jr., M.D., *Chairman*	Erie
John H. Carter, M.D.	Albany
Carl Goldmark, Jr., M.D.	New York
Milton Rosenberg, M.D.	Suffolk
George T. C. Way, M.D.	Dutchess

This Committee was established in February of 1980, with the directive to evaluate the effectiveness of legislative representation of the Medical Society of the State of New York and to ascertain if a change in legislative counsel is advisable.

The Committee met on two occasions during the past year, on April 16, 1980, and on September 3, 1980, at the headquarters of the Society.

After reviewing the activities of our legislative consultants, it was recommended to the Council that the law firm of Rice and Conway be retained for the coming year. The Council approved the recommendation, and asked your chairman to convey to Messrs. Conway and Rice the request of the Council that a daily log be kept of their visits with legislators, together with a brief summary of the matters discussed at these meetings.

The Committee also recommended that the effectiveness of MSSNY legislative representation be periodically reviewed.

Respectfully submitted,
George L. Collins, Jr., M.D., *Chairman*

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Committee to Evaluate the Services of our Legislative Consultants (Lobbyists) in Albany be filed for information.

⟹ . . . *The report of the Committee to Evaluate the Services of our Legislative Consultants (Lobbyists) in Albany was* **FILED FOR INFORMATION** . . .

ETHICS

To the House of Delegates, Ladies and Gentlemen:

The Committee on Ethics consists of the following members:

Joseph G. Zimring, M.D., *Chairman*	Nassau
Theodore C. Jewett, Jr., M.D.	Erie
Clifford L. Spingarn, M.D.	New York
George Tilley, M.D.	Onondaga
Allen Tisch, M.D.	Orange
Gideon Tropp, M.D.	Chemung

The problem of unethical advertising is a growing matter of concern to the Committee on Ethics. During the past few months, the Committee has been requested to decide whether certain advertisements, which were sent to us by various physicians and county medical societies, were ethical. After examination of these advertisements, the Committee found that most of them were unethical solicitation of patients and the involved physician or county medical society was notified.

A physician submitted a letter to the Committee for its opinion as to whether it would be ethical to send it to all business firms in the county in which he resided. Upon reviewing this letter, the Committee advised the physician that it was an example of solicitation of patients and would be considered unethical. A month later, the Committee received a letter and a telephone sticker from the county medical society, of which the above physician was a member; the letter and the telephone sticker had been sent by this physician to the people residing in his and neighboring towns. The letter contained, amongst many statements of solicitation, the invitation that the people "stop by, meet him, and register," so that he would know them when they would call him professionally. The Committee advised the county medical society that the letter and telephone sticker, which states that in case of emergency, "Call Dr. —," were considered examples of unethical advertising and suggested that this matter be brought to the attention of both their Board of Censors as well as the Board for Professional Medical Conduct of the New York State Department of Health.

In relation to advertising by physicians, the Committee received a copy of a letter that was being sent to physicians by a public relations firm that was soliciting business. This letter contained the following statement:

". . . Our public relations efforts on their behalf (specialists in cosmetic surgery, ophthalmologists, and psychiatrists) have resulted in articles by or about these physicians in such national publications . . ." The Committee wrote to the public relations firm that the method of advertising as proposed by them to be used by the physician was considered a manner of solicitation or patronage by that physician, and, therefore, might result in the referral of the involved physician to the Board for Professional Medical Conduct of the New York State Department of Health.

The Committee received a letter from a county medical society concerning the role of a consultant physician in cases referred to them by the physician in charge of the case. The county medical society was referred to Article III of the

"*Principles of Professional Conduct*" of the Medical Society of the State of New York which describes a consultant's involvement in a referred case, plus the responsibilities of both the consultant and the physician in charge of the case.

The Committee was requested by Robert J. O'Connor, M.D., Director, Division of Medical Services of MSSNY, to give its opinion and ideas on certain changes that a nursing home wished to make involving the conduct of physicians in the care of patients in that home. After carefully reviewing all the material sent to MSSNY by the nursing home, the Committee arrived at the following conclusions:

> "1) If the Medical Director of the nursing home assumes the presidency of the professional corporation, which will attempt to be the major source for the treatment of the majority of the patients in the nursing home, it would be considered unethical because of conflict of interest.
>
> "2) The Committee believes that all physicians, who are treating patients in the nursing home, should be individually asked whether they wish to continue the care of the patient. The physician should then be informed of the rules and regulations that have to be followed in the care of these patients; he should also be informed of his rights to 'due process of law' in case he is informed that he has lost the right to treat patients at the nursing home."

Dr. O'Connor was advised that the nursing home should be informed of the above decisions of the Committee on Ethics.

The Committee requested the Council of MSSNY to bring to the attention of the AMA Ad Hoc Committee on the Principles of Medical Ethics the following principles which had been omitted, and which we thought were of great importance in the treatment of patients:

1. "A physician who is entitled to just and fair compensation shall neither receive nor give a commission for patient referral.
2. "A physician should be able to dispense drugs or appliances to a patient when there is no other non-medical source available within the community and at no profit to himself."

The reasons that the above recommendations have been made by the Committee on Ethics are:

1. "Fee splitting" or receiving commissions should still be considered unethical.
2. The people in rural areas should not be forced the inconvenience of traveling miles for drugs or appliances necessary for their health.

The chairman wishes to express his appreciation to the members of the Committee for their cooperation; my deep appreciation to J. Richard Burns, J.D., General Counsel, for his assistance and guidance in dealing with many complicated matters. The chairman also wishes to extend his appreciation to Donald R. Moy, J.D., Staff Attorney, for his cooperation and my deep appreciation to Mrs. Joan Grimm for her wonderful secretarial assistance.

Respectfully submitted,

Joseph G. Zimring, M.D., *Chairman*

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⇒ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

⇒ Your reference committee recommends that the report of the Committee on Ethics be filed for information.

⇒ . . . *The report of the Committee on Ethics was* **FILED FOR INFORMATION** . . .

FEDERAL LEGISLATION

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on Federal Legislation are as follows:

William P. Clark, M.D., *Chairman*	Westchester
Robert P. Coolidge, M.D.	Schenectady
Irwin Felsen, M.D.	Allegany
Seymour L. Halpern, M.D.	New York
Allen Reichman, M.D.	Nassau
* Andrew Gurman	Onondaga
Joseph R. Fontanetta, M.D., *Advisor*	Kings

Committee Meeting. Since our last report to the House of Delegates in September, 1979, the Federal Legislation Committee has met once at the State Medical Society Headquarters on June 5, 1980. The purpose of this meeting was to review developments in Congress relating to health matters.

Recommendations to the Council. Several important health issues and specific proposals were reviewed and discussed and based upon the recommendations of your Committee, the Council, at its June 26, 1980, meeting took several actions as follows:

> *Medicare & Medicaid Reforms.* The Committee reviewed several bills, currently before the House of Representatives, which would make several revisions of the Medicare and Medicaid programs and discussed the position of the American Medical Association regarding these proposals as outlined in its Statement to the Subcommittee on Health of the House Ways and Means Committee. Your Committee noted that although there are many provisions contained in this legislation which are supported by the American Medical Association, there are a number of provisions which are opposed by the AMA because they would have an adverse effect on the quality and availability of health care services to the Medicare/Medicaid population. These provisions, opposed by the AMA, include:

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* Medical Student

. . . Allowing Medicare coverage for services furnished by optometrists in connection with treatment of aphakia;

. . . Repealing existing Medicare provisions which authorize presumed periods of coverage for post-hospital extended care services and post-hospital home health services;

. . . Extending Medicare coverage for inpatient psychologist services;

. . . Expanding the membership of the National Professional Standards Review Council;

. . . Requiring employers to provide hospital benefits to all employees through age 69, and making Medicare secondarily liable for payment of those benefits for those aged 65-69;

. . . Restricting the special 100% Medicare reimbursement (with no deductible) for physicians in the field of radiology and pathology to physicians who agree to accept assignment for all services to hospital inpatients;

. . . Abolishing the Statewide Professional Standards Review Councils;

. . . Disallowing reimbursement to hospitals for their cost in paying for radiological administrative services if the physician concerned received payments under Medicare Part B for radiological services furnished to an inpatient of the hospital.

The Council approved a recommendation of the Committee that MSSNY endorse the position of the AMA on the above proposals contained in HR 3990 and HR 4000, the Medicare Amendments; HR 4106, the Medicare-Medicaid Fraud and Abuse Amendments; HR 4444, the HMO Medicare Reimbursement Amendments; and HR 4475, the Medicare-Medicaid Amendments.

In addition, the Council approved a recommendation of the Committee to specifically emphasize the opposition of the State Society to the continuing tendency to afford preferential treatment and massive federal subsidies to HMOs because a thorough evaluation and accurate analysis of their viability and efficacy as an alternative health care delivery system is rendered impossible.

The Council also approved a recommendation to specifically emphasize support of the provision which would preserve the confidentiality of PSRO records by declaring that PSROs are not to be treated as government agencies or advisory committees under the Freedom of Information Act.

Health Manpower. The Committee reviewed current developments regarding several proposals regarding health manpower, including S.2144, the Health Professions Educational Assistance and Nurse Training Act (Schweiker, R-Pa); S.2375, the Health Professions Training and Distribution Act (Kennedy, D-Mass) and S.2378, the Health Care Management and Health Care Personnel Distribution Improvement Act (Javits, R-NY).

The Council approved a recommendation of the Committee that MSSNY adopt the following position:

> The Medical Society of the State of New York supports the concept of continuing some form of federal manpower financial assistance and support, including general institutional grants, special project grants for medical schools, and the continuation of the National Health Service Corps and other support mechanisms such as long-term low interest loans for medical students.

Mental Health System. The Committee reviewed HR 7279, entitled the "Mental Health Systems Act," which would replace the existing Community Mental Health Centers Act and authorize federal assistance for the provision of mental health services by the States.

The Committee voted to join the AMA in its strong support for the amendment offered by Health Subcommittee Chairman Henry Waxman (D-Calif) that would provide that, consistent with requirements of state law, the medical services provided by a community-based mental health center to individual patients shall be under the direction and supervision of a physician and, whenever possible, the physician shall be a psychiatrist. This recommendation was approved by the Council.

Catastrophic Health Insurance. The Committee discussed recent developments regarding Catastrophic Health Insurance which have centered around Senate Finance Committee Chairman Russel Long's (D-La) efforts, which have as yet been unsuccessful, to gain Finance Committee approval of a limited interim catastrophic package.

The Council approved a recommendation that MSSNY take the position that any proposal for catastrophic health insurance must provide uniform benefits available to all Americans, administered and funded primarily through the private sector, and preserving free choice of private physicians.

National Health Insurance. In conjunction with its discussion of the issue of catastrophic health insurance, the Committee reviewed MSSNY's Position Paper on National Health Insurance and the four point position of the AMA which sets forth general principles supported by the AMA on catastrophic and national health insurance.

The Committee believed that it would be inadvisable to repudiate or discard our position statement which is not inconsistent or in conflict with the four AMA principles. The MSSNY position statement sets forth several recommendations and principles which ought to be included in any Comprehensive National Health Insurance Program which might be considered or enacted in the future. The Committee recommended that this statement, which may be refined and updated if need be, should be retained by the Society and submitted to the Congress should the issue of National Health Insurance again appear to gain serious national attention and consideration. The Council also approved this recommendation.

Drug Regulation Reform. The Committee reviewed the Drug Regulation Reform Act, S.1075, Kennedy (D-Mass) which was passed by the Senate on September 26, 1979. The Committee recommended support of the proposed amendments developed by the AMA that would remove certain provisions which would unduly interfere with the practice of medicine and which would assure physician discretion as to the advisability of distributing certain drug information to his patients. The Council approved this recommendation.

Federal Trade Commission. Efforts during the current session to limit the rulemaking authority of the FTC and to establish a legislative veto over FTC regulations were reviewed by the Committee. Communications which were addressed to the New York State Congressmen on the House Appropriations Committee and to Senators Moynihan and Javits supporting these efforts on behalf of MSSNY by Henry I. Fineberg, M.D., were reviewed.

The Committee recommended that the following position, which was contained in these communications, be formally adopted by the Council:

> The Federal Trade Commission has exceeded the authority conferred upon it by Congress and has, through exercise of its rule making powers, overridden State laws and prevented voluntary associations from setting standards of professional responsibility for their own members. The Medical Society of the State of New York firmly believes that Congress should reaffirm the traditional role of the States to regulate the professions as well as the authority of professional societies to conduct their activities without unwarranted and excessive federal government interference.

The Council approved this statement.

Certificate of Need. In view of the continuing efforts at both the federal and state levels by government to extend the application of certificate of need requirements to private physicians' offices, the Committee recommended and the Council approved that MSSNY reaffirm its strong opposition to any legislation or regulation which would extend CON requirements to private physicians' offices.

Headquarters Activities. The Committee, through the activities of the Division of Governmental Affairs, keeps abreast of the latest developments in Congress through three reporting services. Current files are maintained on the major bills pending in both houses, copies of statutes enacted are also obtained. The regulatory activity of all federal agencies dealing with health and medicine is monitored by the division through the *Federal Register.* As issues arise requiring action by our Society, the division works with the administration and other staff divisions on the preparation of mailings to our congressional representatives and to governmental agencies. The division also prepares periodic reports on federal legislation for the *News of New York.*

Cooperation with AMA. Following our established practice of cooperating fully with the AMA in furthering mutual objectives, the Committee, in conjunction with MSSNY's administration, responded to the AMA's request for action on proposed legislation to limit the rulemaking authority of the Federal Trade Commission by communicating the support of the State Medical Society of this legislation.

Acknowledgments. Your chairman is most grateful to the members of your Federal Legislation Committee for their excellent assistance and cooperation. We appreciate the help given by numerous other individuals, including John H. Carter, M.D., Chairman, Commission on Governmental Affairs; Henry I. Fineberg, M.D., Executive Vice-President; Edward Siegel, M.D., Deputy Executive Vice-President; Martin J. Tracey, J.D., Director, Division of Governmental Affairs; Paul A. Tagliaferro, J.D., Assistant to the Director; and Vita Chilleme and Florence G. Lynch, our secretarial staff. Finally we should also like to thank the representatives of the American Medical Association, who have worked so effectively with us, but especially, William C. Felch, M.D., Vice-Chairman, Council on Legislation, who has regularly attended our meetings and rendered invaluable assistance.

Respectfully submitted,
William P. Clark, M.D., *Chairman*

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⇒ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

⇒ Your reference committee recommends that the report of the Committee on Federal Legislation be filed for information.

⇒ . . . *The report of the Committee on Federal Legislation was* **FILED FOR INFORMATION** . . .

STATE LEGISLATION (ANNUAL)

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee on State Legislation are as follows:

John H. Carter, M.D., *Chairman*	Albany
Frank A. Bersani, M.D.	Onondaga
Roger D. Billig, M.D.	Richmond
Philip C. Bonanno, M.D.	Westchester
Stephen I. Braitman, M.D.	Suffolk
Lester J. Candela, M.D.	Queens
Philip Cohen, M.D.	Kings
John A. Finkbeiner, M.D.	New York
James M. Flanagan, M.D.	Wayne
Robert Charles Friedman, M.D.	Albany
Samuel M. Gelfand, M.D.	Nassau
Alexander L. Hastie, M.D.	Madison
Henry W. Kaessler, M.D.	Westchester
Robert M. Kohn, M.D.	Erie
Dattatraya Lanjewar, M.D.	The Bronx
Robert Mickatavage, M.D.	Westchester
Richard E. Murphy, M.D.	Clinton
Wilfred Reguero, M.D.	New York
Richard E. Sullivan, M.D.	Broome
Wayne C. Templer, M.D.	Steuben
* Stephen N. Levy	Albany

GENERAL OBSERVATIONS

At the time this report is being written in late June, 1980, the State Legislature has recessed but is expected to return later in the year to act on major problems requiring urgent consideration. Numerous bills, including several strongly supported by MSSNY, are before the Governor for action. The information, therefore, contained in this report regarding specific legislation, is submitted to the House of Delegates as a progress report. A final review of legislation of special importance to the medical profession will be contained in our

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* Medical Student

Supplementary Report in September.

Also, in our supplemental report we will submit the recommendations of your Committee, scheduled to meet in early September, for MSSNY's 1981 State Legislation Program.

REPORT FORMAT

This report is divided into four major parts:

I. Committee Actions on resolutions and directives referred to it by the House and Council, as well as Council actions on your Committee's recommendations;

II. General commentary on activities during the 1980 session of the State Legislature to late June, including current status of MSSNY 1980 Program Bills and other supported measures, three of which reached the Governor, and specific comments on actions taken on key health proposals;

III. Review of activities in MSSNY's Legislative Director and Legislative Counsel in Albany and staff operations at Lake Success; and

IV. Summary of miscellaneous matters.

I. *COMMITTEE ACTIONS*

Your Committee met in Albany on January 31, 1980, to review activities in Albany and to consider items referred to the Committee by the House of Delegates, the Council, and others and to make recommendations to the Council. Included in the agenda were matters reported under the following headings pertaining to the House and Council.

HOUSE OF DELEGATES RESOLUTIONS — 1979

The following resolutions and actions were referred to the State Legislation Committee from the 1979 House of Delegates. These resolutions were reviewed carefully by your Committee, recommendations for action were submitted and approved by the Council, and the following actions were taken:

1. **Resolution 79-46, Health Education and Illness Prevention. Adopted and referred by the House of Delegates.**

Resolved, That the Medical Society of the State of New York do all in its power to encourage and foster the use of all available health promotional means by members of the Medical Society of the State of New York, so that illness and the cost of its care will be reduced; and be it further

Resolved, That the Medical Society of the State of New York and its affiliates actively encourage the State Legislature and all local governing bodies of this State to increase their fiscal support of means of health education and disease prevention.

RECOMMENDATION — A memorandum was sent to all 210 members of the State Legislature informing them of the action of the House of Delegates and seeking their cooperation in implementing its objectives and a similar memorandum was sent to County Medical Society Legislation Chairmen requesting them to seek similar action in their county legislatures. In addition, a memorandum in support of A.5448 (Diggs), which would require the establishment of programs for instruction in schools regarding nutrition, mental and emotional health, family living, and disease prevention and control, was prepared and distributed to the Assembly Health Committee, which has not yet considered the bill.

2. **Resolution 79-4, Expiration Date on Drug Labels. Amended, adopted, and referred by the House of Delegates.**

Resolved, That the Medical Society of the State of New York support appropriate legislative or regulatory action that would mandate the inclusion of the expiration date and control number on all prescription drug labels on containers dispensed to patients.

RECOMMENDATION — A memorandum supporting S.4388 (Sen. Halperin); A.6392 (M. of A. Smoler), which would require expiration dates on prescription drugs in this State was prepared and distributed to the legislature. The memorandum urged amendment of the bill to require that the drug's control number be included along with the expiration date. The bill is presently in committee in both houses.

OTHER MATTERS REFERRED BY THE HOUSE

1. The House adopted a recommendation of the Reference Committee on Public Health and Education that MSSNY support a bill for certification, but not for licensure of athletic trainers. Referred to the Committee on State Legislation.

RECOMMENDATION — A bill presently before the legislature, S.2594-A (Sen. Stafford); A.3292-A (M. of A. D.B. Walsh), which would provide for the licensure of athletic trainers, was opposed in a memorandum submitted on behalf of the State Society to the Legislature. The memorandum recommended that appropriate certification requirements would be more than adequate. The bill presently remains in committee in both houses.

2. The House adopted a recommendation of the Reference Committee on Public Health and Education that MSSNY oppose legislation which would designate individuals other than physicians to pronounce death.

RECOMMENDATION — No such legislation has yet been introduced into the New York State Legislature.

COUNCIL ACTIONS — Matters Referred to the Council

Since the last meeting of the House of Delegates in September, 1979, your Committee presented the following recommendations to the Council for approval and action. Subsequent dispositions and actions taken as a result are indicated wherever appropriate:

1. At its meeting on August 23, 1979, your Committee reviewed and discussed Resolution 78-37 which would require that the Medical Society take steps to have the present system of authorization numbers to treat Workers' Compensation eliminated. Recognizing that for the foreseeable future the possibility of enacting legislation to accomplish this goal is exceedingly slim, your Committee voted to instruct legislative counsel to monitor the

situation and to discuss the matter with governmental and legislative leaders and report back to your Committee at such time that it appears that this concept might gain legislative approval. This action was submitted to the Council for information at its meeting on September 6, 1979.

2. Your Committee reviewed the Report of the Committee on Emergency Health Services dealing with the liability of emergency room physicians which had been referred to your Committee by the Council on March 22, 1979. Feeling that the immunity issue is adequately addressed in S.2917 (Johnson); A.2899 (Flanagan) and in several other bills supported by MSSNY, which are currently before the Legislature, your Committee voted to transmit the report to legislative counsel for use as guidelines in evaluating any legislation regarding this matter. This action was submitted to the Council for information at its meeting on September 6, 1979.

3. At its meeting on March 22, 1979, the Council approved and referred to the Committee on State Legislation a recommendation by the Committee on Medical Care Insurance that necessary legislative changes be sought to include Medicare, Medicaid, and No-Fault Insurance programs in the health claim form regulations. At its meeting on August 23, 1979, your Committee reviewed this recommendation and the claim form which has been established pursuant to Chapter 545 of the Laws of 1977. Your Committee recommended and the Council approved at its meeting on September 6, 1979, that the present form and regulations be reviewed by the Committee on Medical Care Insurance to determine the adequacy of the present form. Your Committee recommended, further, that in view of the fact that MSSNY had initiated a bill (A.6845 – Conners) which would make the uniform claims form requirement applicable to IX-C carriers, that the State Society concentrate on passage of this bill before seeking additional changes. The bill, A.6845-A, has recently passed both houses of the Legislature and is presently awaiting action by the Governor.

4. At its meeting on August 23, 1979, your Committee reviewed the recommendation of the Executive Committee, which had been approved and referred by the Council, that MSSNY seek the ability to nominate physicians to the State Hospital Review and Planning Council. Recognizing that the current membership of the Council does not comply with existing statutory requirements as to the number of physicians who must be members, your Committee believed that further statutory requirements, even if enacted, would be of little value unless they would be enforced. Your Committee was informed by our legislative representatives that Senator Tarky Lombardi has been informed of this problem and is in full support of our efforts to obtain proper physician representation as well as representation of organized medicine. Your Committee has instructed legislative counsel to continue to pursue this matter with Senator Lombardi. This matter was reported to the Council for its information on September 6, 1979.

5. Your Committee reviewed a resolution previously approved by the Council and referred to the Committee for implementation that MSSNY support legislation to require attorneys to pay a biennial registration fee. Legislative counsel informed your Committee that such legislation was before the Legislature during the past session but was not enacted. Your Committee instructed legislative counsel to support such legislation should it again become viable in the legislature. Your Committee also recommended, and the Council approved, that the resolution be transmitted to NYSAP to seek their support of such legislation. This resolution was subsequently transmitted to NYSAP with a recommendation that it support such legislation.

COUNCIL ACTIONS — Matters Referred by the Council

1. At its meeting on March 20, 1980, the Council approved and referred to this Committee, a recommendation of the Committee on Mental Health that MSSNY strongly endorse S.7031, which would establish a demonstration project for in-home care for the mentally retarded or developmentally disabled.

RECOMMENDATION — A memorandum in support of this bill has been prepared and submitted to the Legislature. The bill is presently lodged in the Senate Mental Hygiene Committee.

2. At its meeting on March 20, 1980, the Council approved Assembly Bill 9004 (M. of A. Tallon) which would amend the Public Health Law to establish a definition of death. Referred to this Committee by the Council.

RECOMMENDATION — A memorandum in support of this bill was prepared and submitted to the Legislature. The bill was reported from the Health Committee to the entire Assembly but has been withheld from a vote.

3. The Council, at its meeting in March, 1980, voted complete opposition to the Governor's draft bill on expanding the practice of nursing. Referred to this Committee by the Council.

RECOMMENDATION — Two bills have been introduced into the Legislature this year which would provide for the expanded practice of nursing. The first bill, A.11056 (Rules), was introduced on behalf of the Education Department. The second bill A.11733 (Rules), was the Governor's bill mentioned above. Both bills were referred to the Assembly Higher Education Committee where they have remained. Our Legislative Counsel and Director met with Counsel to Senator Tarky Lombardi, Jr., Chairman of the Senate Health Committee, to discuss these proposals. A special MSSNY Ad Hoc Committee has been appointed, at the request of Senator Lombardi, to meet with the Senator later this year regarding these bills.

4. The Council, at its meeting on March 19, 1980, voted opposition to S.2613-C (Pisani), A.3843-C (LaValle), which would redefine the practice of physical therapy. Referred to this Committee by the Council.

RECOMMENDATION — A subsequent version of this bill was discussed at the April 17, 1980, meeting of the Council and the Council adopted a motion to approve the bill in principle if amended to assure physician supervision over physical therapy assistants. In addition, the

Council strongly recommended that a physician be represented on the proposed State Board for Physical Therapy. The final version of this bill, S.2613-E, A.3843-E, which passed both houses of the Legislature had been amended to resolve the more serious concerns of the State Medical Society, as spelled out later in this report, but did not include physician representation on the Board. However, in view of the significant changes which were ultimately made to the bill in response to the State Society's objections, continued opposition to the final version was deemed inadvisable, and the bill was supported in principle. It passed the Legislature and is before the Governor.

5. At its meeting on March 19, 1980, the Executive Committee of the Council reviewed A.9231 (G. W. Miller), which would amend the Constitution to provide that the Legislature shall provide for the establishment and regulation of a system of health services to insure that all citizens of this State will have access to quality health care as a matter of right. Referred to this Committee.

RECOMMENDATION — This matter was transmitted to our legislative counsel for guidance and it did not move during the current session. It will be placed on the agenda for the next meeting of the State Legislation Committee in September.

6. At its meeting on April 17, 1980, the Council approved a recommendation of the Committee on Mental Health to oppose S.8131 (Padavan), A.9630 (Kremer), which would provide for certain notification procedures prior to the release of individuals committed to the custody of the Commissioner of Mental Hygiene. Referred to this Committee by the Council.

RECOMMENDATION — This recommendation was forwarded to our legislative counsel with the recommendation that the Council's reservations be communicated privately to legislative leaders since recent publicity regarding this issue would make public opposition inadvisable. The bill has passed both houses of the Legislature and presently awaits action by the Governor.

7. At its meeting on April 17, 1980, the Council approved a recommendation of the Executive Committee that MSSNY oppose S.7738 (Budget), A.9138 (Budget), which would establish a Statewide Planning and Research Cooperative System (SPARCS) management fund to be funded by assessments from hospitals. Referred to this Committee by the Council.

RECOMMENDATION — A memorandum in opposition to these bills was prepared and distributed to the Legislature. The bills remain in committee in both houses.

8. At its meeting on May 22, 1980, the Council approved a recommendation of the Committee on Aging and Nursing Homes to oppose S.8589 (Lombardi) which would require the establishment of approved training courses for nurses assistants in residential health care facilities. Referred to this Committee by the Council.

RECOMMENDATION — A memorandum in opposition to this bill was prepared and disseminated to the Legislature. The bill was reported out of the Health Committee in the Senate but was withheld from a vote by its sponsor.

9. At its meeting on May 22, 1980, the Council approved a recommendation of the Committee on Medical Aspects of Sports to oppose A.9705 (Newburger) which would require the establishment of a Statewide sports injury registry. Referred to this Committee by the Council.

RECOMMENDATION — A memorandum in opposition to this bill was prepared and disseminated to the Legislature. The bill presently remains in committee.

10. At its meeting on May 22, 1980, the Council approved a recommendation of the Committee on Preventive Medicine that MSSNY support A.10435 (Tallon) which would grant State aid to municipalities for the purpose of promoting public health. Referred by the Council to this Committee.

RECOMMENDATION — A memorandum in support of this bill was prepared and distributed to the Legislature. The bill remains in the Assembly Health Committee.

II. *1980 SESSION — NEW YORK STATE LEGISLATURE*

In accordance with the directives of the House of Delegates in September, 1979, and with the subsequent approval of the Council, our basic State Legislation Program for 1980 was prepared and presented to the 1980 session of the New York State Legislature. A detailed description of each bill, as well as identification numbers, present status, and comment will be found later in this report under the heading "MSSNY 1980 State Legislation Program."

In order, however, to give the House a general understanding of developments before going into details, the following evaluation is presented.

OVER-ALL COMMENTARY

The 1980 session was a most productive period for your Committee and MSSNY. For the first time in several years, a major MSSNY malpractice proposal, the Collateral Sources Bill, passed both houses and is now before the Governor, after an all-out, session-long drive rarely experienced in the State Capitol. The Physicians' Committee Bill, granting immunity to our Committee involved in alcoholism problems, also won the Legislature's approval and already has been signed by the Governor, as one of his own program measures. The Standard Health Claims Form Bill was the third MSSNY initiated and supported bill to gain Assembly and Senate endorsement and go to the Governor. At report time, the form bill had been recalled from the Governor's desk. Since the Governor has not completed actions on these proposals at report time, our Supplemental Report will provide details concerning final actions on them.

As spelled out later in this report, there were numerous additional accomplishments. Intensive negotiations involving two important health bills, namely, the so-called Physical Therapy Bill and the Professional Discipline Bill, resulted in the development of final versions of this proposals, which made them acceptable to MSSNY. The Marijuana Cancer Therapy Bill, which was strongly supported by your State Medical Society, was also endorsed by the Legislature. All three proposals were before the Governor at the time this report is being written.

Many objectionable measures went down to defeat. Among these proposals were measures on abortion, optometrists and drugs, nurse practice, generic drugs, and a repealer of the present two-line prescription form.

The success of our efforts was due in large part to a combination of several factors which came to the fore for the first time and provided a winning formula. Primary among these factors was the meaningful involvement of physicians personally in contact with legislators and their active participation in political action through the New York Medical Action Committee (NYMPAC). As a result, the improved reception given on the part of the legislators, as reported to you last year, was more evident in 1980 to our director and legislative counsel. There also appeared to be more acceptance on the part of the individual legislators of the views expressed by the representatives of MSSNY. In discussions with the leaders, agreements were reached on important items, which in the past might not have occurred. As a body, the Legislature indicated more approval of our proposals as evidenced by the passage of the aforementioned bills. In brief, the climate in Albany was marked not only by continuing and improved receptivity but by acceptance, agreement, and approval of MSSNY's views on the part of both the individual legislators and the Legislature as a whole.

A key factor was the reduction of our affirmative State Legislation Program from 22 bills in 1979 to 6 major proposals in 1980. This reduced program enabled our director and legislative counsel not only to promote the 6 major proposals but to divert their efforts to other matters of vital importance as the trends in Albany necessitated. For example, they were able to devote extensive efforts to such proposals as the Collateral Sources Bill, the Standard Health Claims Form Bill, and the Physicians' Committee Bill which were among the proposals strongly supported by MSSNY.

There also was an unusual amount of cooperation on the part of county medical societies and allied groups. Representatives of two county medical societies travelled to Albany to discuss with our representatives and key legislators problems relating to Medicaid and the Professional Service Corporation Tax Benefits Bill. Officers of the physiatrists State organization were intimately involved in negotiations concerning the Physical Therapy Bill. Representatives of our insurance company, MLMIC, played important roles in all of the discussions we had concerning malpractice insurance problems.

The last but not least important factor involved in our legislative success this year was the new type of legislation conference held in Albany in the Spring. Representatives from numerous county medical societies gathered for a briefing session in the Nelson A. Rockefeller Empire State Plaza prior to visiting the offices of their local legislators. At that time they were armed with materials advocating our views on many of the proposals which gained Legislature approval.

All of these factors and the implementation of them came together in a focal point during the last week of the session prior to recess. On Monday of that week, when the Senate was scheduled to recess on Wednesday and the Assembly at the latest on Saturday, opposition was voiced against our Collateral Sources Bill by the trial lawyers. On Tuesday the opposition was withdrawn and our bill was reported out of the Senate Codes Committee after being revised by the Chairman of that committee. This necessitated a reprint of the bill. All reprints of bills must lay on the desk of the legislators for a period of three days before consideration and the outlook for passage, therefore, looked impossible. Nevertheless, through the ingenuity, hard work, and tireless all-out efforts of our Albany representatives and good fortune, the Senate remained long enough to pass the bill in that body and the Assembly granted final passage just before the recess at the end of the week. Although this concentrated activity took place in a short period of time, it came about because of, and as a result of, the continuous involvement of a very large number of people over a long, extended period of time.

At report time in late June, one fact is indisputable — the way has been paved for future consideration of MSSNY's malpractice reforms by the Legislature, through its approval of our Collateral Sources Bill. As mentioned later on in this report, the Trial Lawyers' Association representatives have agreed to meet with representatives of MSSNY to discuss our structured award plan. Elections for seats in both the State Assembly and State Senate will be held in November and, hopefully, there will be changes which will favorably affect the fortunes of MSSNY during the 1981 session. By building on the sound foundation which has been laid during the current session, MSSNY can look forward to still more productive efforts in the State Legislature during the next year.

SPECIFIC OBSERVATIONS

The following is a summary of major actions of the 1980 Session to date regarding health legislation:

Three MSSNY Bills Approved — Sent to Governor

a. *Malpractice — Reductions of Awards by Collateral Sources of Benefits* — S.2071-B (Flynn); A.10396-B (Seminerio), would provide that whenever an award of damages is made in a medical malpractice action, the court shall reduce the award by the amount of any insurance or disability benefits received by the plaintiff from any collateral source, minus an amount equal to premiums paid for such benefits for the two-year period immediately preceding the accrual of such action. This bill has passed both houses of the Legislature and presently awaits action by the Governor.

b. *Standard Health Claims Forms* — S.8364-A (Schermerhorn); A.6845-A (Connors) would require the use of the standard health services claim form presently required for commercial insurance companies, by Article IX-C corporations. This bill passed both houses of the Legislature, was sent to the Governor, but had been recalled at report time.

c. *Physicians' Committee — Reporting Exemption* — S.9917 (Rules); A.11834 (Connelly), would exempt from the misconduct reporting requirements of the Public Health Law participating members of MSSNY's committee working with physicians suffering from alcoholism, drug problems, or mental illness. This bill also passed both houses of the Legislature and was signed into law by the Governor (Chapter 343, Laws of 1980).

Two Additional MSSNY Measures Move in Legislature

I. *Malpractice Panels — Cross-Examination Exemption* — S.8675 (Farley); A.10633 (Lentol), which would amend the Judiciary Law to prevent the physician panelist of a medical malpractice panel from being cross-examined as a witness at the trial of a malpractice claim, was held on third reading in the Senate due to objections raised by the Counsel to Senator Warren M. Anderson, Majority Leader.

II. *Malpractice — State Insurance Fund* — S.1473 (Schermerhorn); A.6733 (Conners), which would prevent the automatic activation of the State Insurance Fund so long as professional liability insurance coverage is available through a private mutual insurance carrier, has passed the Assembly but has been held up in Committee in the Senate.

Negotiations Make Two Major Bills Acceptable. Intensive negotiations involving two important health bills, namely, the so-called Physical Therapy Bill and the Professional Discipline Bill, resulted in the development of final versions of these proposals, which made them acceptable to MSSNY.

1. *Physical Therapy* — Extensively amended legislation to define the practice of physical therapy, in final form resolving major concerns originally expressed by the State Medical Society, passed the Assembly and is before the Governor.

   The bill, S.2613-E (Pisani, et al.); A.3843-E (Passannante, et al.), previously approved by the Senate, reflected in its fifth and final version changes sought and obtained by MSSNY representatives in lengthy and diligently pursued negotiations with the sponsors and sufficient in importance and substance to permit the Society to withdraw its initially strong objection to the measure and to support it in principle.

   Agreements reached in the series of negotiations put into the measure (1) a clear statement that treatment by physical therapists shall be on referral from a physician and that the physician shall have the absolute right to issue directions relative to the particular kind and scope of treatment by the physical therapist, (2) a clear prohibition against the use of x-ray by physical therapists, (3) restriction of referring individuals to physicians, dentists, and podiatrists, and (4) clearly established physicians' authority to control and directly supervise physical therapists' assistants.

2. *Professional Discipline* — The Legislature's approval sent to the Governor a comprehensive bill to reform the State's system for disciplining professionals, aiming at speeding the process, revising definitions of misconduct and increasing penalties and providing more public information regarding the system's operations.

   Supported by MSSNY after the sponsors agreed to include several major recommendations made by the State Medical Society's representatives in numerous conferences, the measure, A.11303-A (Siegel, et al.), is based on a two-year study by the Assembly Committee on Higher Education and the Senate Committee on Education. The legislation deals with the handling of charges of misconduct or incompetence against members of 30 State-licensed professions, including medicine, with approximately 450,000 practitioners.

   One of the major provisions, designed to consolidate investigation and prosecution functions in a single unit, would transfer all the functions, powers, and duties of the education bureau of the department of law relating to investigation and prosecution of alleged professional misconduct to the education department, except in proceedings involving physicians, physicians' assistants, or specialists' assistants. The bureau's functions related to such cases would go to the Department of Health. The bill was before the Governor at report time.

Marijuana Cancer Therapy Bill Approved. In the last weeks of the session a bill concerning cancer therapy came to the fore. Your State Medical Society supported A.11236 (Hevesi, et al.) which would provide for the use of marijuana to alleviate the ill effects of cancer chemotherapy, glaucoma, and for other therapeutic uses. This bill passed both houses of the Legislature and is before the Governor for his consideration.

Many MSSNY Opposed Bills Defeated. Many key bills, strongly opposed by your State Medical Society, either failed to pass both houses of the Legislature or were never reported out of committee.

Legislation that would have established new conditions to the performance of an abortion on an unmarried woman under 18 years of age was opposed by your State Medical Society which, in a memorandum presenting its objections, emphasized that it was taking "no official position involving the pros and cons of abortion for moral, ethical, or philosophical reasons." The bill, A.11579 (Rules) (Nicolosi, et al.); S.9074 (Padavan, et al.), failed on two occasions to obtain the required 76 votes for passage in the Assembly.

MSSNY filed a 17-item statement of guidelines along with this memorandum declaring that it "does take the position that when and if an abortion is performed, that it be done under the guidelines appended hereto." Your Society also stated in its memorandum that enactment of the proposal "would have a direct effect on the ability of physicians to make diagnoses and medical judgments in regard to treatments."

Efforts by our Albany representatives to halt the *Optometric Drug Bill*, S.2020 (Bernstein); A.2020 (Lasher), have been successful and the bill, therefore, is not likely to get through the Legislature this year. The two bills which were introduced into the Legislature regarding the *Expanded Practice of Nursing*, one on behalf of the Education Department, A.11056 (Rules), and the other on behalf of the Governor, A.11733 (Rules), also probably will not be taken up by the full Legislature during the current session. The proposal to *Repeal the Present Prescription Two-Line Form* and replace it with the objectionable one-line form, A.6212-C (Grannis), failed to pass the Assembly on a floor vote. The bill was strongly opposed by MSSNY.

1980 MSSNY STATE LEGISLATION PROGRAM

The following is a detailed report on our basic State Legislation Program, previously mentioned, which was presented to the 1980 Session on the New York State Legislature. Appropriate identification numbers and the present status of each bill are indicated, accompanied by brief comments.

1. *Investment Fund — Pain and Suffering Damages Over 100,000 Plus Special Damages* — would create an investment fund for pain and suffering damages over $100,000 for the benefit of the plaintiff for life. At death, the principal would be returned to the payor. The fund also would include special damages for loss of earnings, medical expenses, hospital charges, and other expenses as such expenses accrue or are incurred. At death, special damages would cease except for amounts attributable to loss of earnings which would continue until the death of the surviving children, or until they reach the age of 21. (S.4420-A, Pisani) (A.5684, Tallon) In the Senate and Assembly Codes Committee.

COMMENT — About midway in the session, Assembly Codes Committee Chairman, Assemblyman Melvin Miller arranged a conference at his office in New York City which brought together representatives of MSSNY, the Trial Lawyers Association, and MLMIC to discuss MSSNY's Legislative Malpractice Proposals. This conference produced two significant results. The first result was that MSSNY's Council appointed a committee to meet with the representatives of the Trial Lawyers Association and MLMIC to study MSSNY's structured awards proposal spelled out above for the purpose of reaching an agreement on an acceptable proposal which might be presented to the State Legislature. The second result was that the Trial Lawyers did not present their usual objections when the Collateral Sources came before the Legislature and the proposal was successful in passing both houses. Plans are underway for a meeting of this Joint Committee in the near future.

2. *No-Fault Insurance Law Amendment* — would amend the No-Fault Insurance law to eliminate the Workers' Compensation fee schedule and substitute a mechanism providing for payment of usual, customary, and prevailing fees. (A. 6553; Connelly) In the Assembly Insurance Committee.

No-Fault Insurance Law Amendment — would amend the Insurance Law to provide that the Workers' Compensation fee schedule shall not be applicable when the patient has other medical insurance. (S.256-C; Marchi) (A.10168; Connelly) In the Senate and Assembly Insurance Committees.

COMMENT — Consideration of these bills is dependent upon the outcome of MSSNY's no-fault suit still pending in the courts. Consequently, movement, if any, will come only after a decision is rendered, hopefully in the near future.

3. *Parallel Coverage — Emergency Care in Physicians' Offices* — would require every group insurance policy which provides for physicians' services to include coverage for emergency medical services provided in physicians' offices. (S.4448; Lombardi) (A.5688; Tallon) In the Senate Insurance Committee and Assembly Rules Committee.

COMMENT — Following conferences with MSSNY's Director and Legislative Counsel, in which he indicated that he was actively working with the Blue Cross plan to arrive at a negotiated solution to the problem involved in the bills, Assemblyman James R. Tallon, Chairman, Assembly Health Committee, who is most actively interested in carrying out the goal of these proposals, delayed implementation of the proposals.

4. *Medical Society Involvement in Physician Discipline* — would authorize county medical society grievance committees to make a determination of professional misconduct and impose penalties including censure, suspension, and revocation of license. (S.5681; Warder) (A.9708; Schimminger) In the Senate and Assembly Health Committees.

COMMENT — During MSSNY's representatives conferences with Assemblyman Mark Siegel, Chairman, Assembly Higher Education Committee and his staff, concerning the Professional Discipline Bill, the concept of these bills was very favorably considered. Action, however, was delayed, pending a study of the possibility of integrating this concept within the revised disciplinary procedure structure of the Assemblyman's Professional Discipline Bill which passed both houses of the Legislature and is before the Governor at the time this report is being written.

5. *Drug Information to Expectant Mothers — Amendment* — would amend Chapters 484 and 485 of the laws of 1978 which require that the physician or nurse-midwife to be in attendance at the birth of a child inform the expectant mother in advance of the drugs which are expected to be employed during pregnancy and at birth, and of their possible effects on the child and mother. The bill would limit the requirements to inform to the time of prescribing or administering actual medications and make a section of the Public Health Law (2805-d), which limits suits filed on the basis of a lack of informed consent, expressly applicable to the drug information requirements. (A.9660-A; Cochrane) In Assembly Health Committee.

COMMENT — Although MSSNY representatives conferred with the sponsor of the current objectionable law, whose cooperation is vital in achieving the concept of the desired changes, he was not amenable to amending the law at this time. Progress, however, was made when the described bill, which spells out in detail the plan recommended by MSSNY's Council, was introduced in the Assembly, where movement could come in the next session.

6. *Professional Service Corporation Tax Law Amendments* — would amend the Tax Law to permit contributions paid on behalf of shareholders of Professional Corporations to pension plans to be accorded the same tax treatment as is afforded to shareholders of other business corporations. (S.3801; Pisani) (A.4681; Robach) On Third Reading in the Senate and in the Assembly Ways and Means Committee.

COMMENT — As a result of the joint efforts of MSSNY's Albany representatives and the Monroe County Medical Society representatives in contacting the Governor's counsel, visiting legislature leaders in Albany, and a mass mailing to MD-PSCs, this bill made significant progress during the 1980 session. For the first time in the years that the proposal has been before the

Legislature, the proposal reached the point where it was ready for a vote on the Senate floor and was before the powerful Ways and Means Committee in the Assembly. Renewed efforts in 1981 could win legislative approval.

As previously indicated, the State Legislature is still in session, although in recess, as this report is being written at the end of June. Additional information, therefore, wherever necessary and feasible, will be included in our supplemental report.

III — *HEADQUARTERS AND ALBANY OPERATIONS*

HEADQUARTERS ACTIVITIES

Our division headquarters' staff, led by the assistant to the director, provided vital support for our Albany activities. Over the entire two-year session, more than 160 memoranda addressed to specific bills were prepared in cooperation with legislative counsel and sent to the legislators. This teamwork of personal contact and written communication was the key to success in gaining legislative approval of some of our bills and averting a massive number of undesirable measures.

The division staff, working under the supervision of the director, is responsible for analyzing all State and Federal legislation involving health care and the practice of medicine. Extensive files are maintained on key topics and issues which arise concerning the relationship of medicine and government, as well as on individual bills which are introduced in the State Legislature.

Thousands of Bills Reviewed. Approximately 22,500 bills were introduced in the State Legislature during the 1979–80 session. These bills were screened by staff and by legislative counsel. Those involving health care (more than ten percent) were referred for analysis and comment to the appropriate Interspecialty Committee representatives and to the chairmen of the appropriate State Society Committees. These comments, as well as recommendations from county medical society leaders via the Legislation Opinion Report of *Capitol News*, were considered along with information in division files in establishing the State Society's positions on all health legislation. Position Statements and memoranda were prepared in cooperation with our legislative counsel and disseminated to the legislators and governmental officials. The staff also cooperated with other Society divisions by providing them with necessary information and seeking their advice and recommendations on pending legislation and regulations.

Labs & Memos Distributed. Memoranda setting forth MSSNY's position on the over 160 individual legislative proposals previously mentioned were drawn up and sent, not only to legislators, but also to members of the State Society's Council, Board of Trustees, and to the staff members of county medical societies. Finally, the *Legislative Action Bulletin* (LAB) was sent to county medical society presidents and executives and to liaison physicians.

Center of Information. Information and materials for publication in the *News of New York* were provided by the staff of the division through its Legislation Information Center. Varied requests for information from county medical societies, individual members, the AMA, and others were answered as quickly as possible. In addition, suggestions and opinions obtained from individual members and county medical societies regarding legislative issues were tabulated and recorded for use in preparing the State Society's positions on specific legislation.

Special Publications. The division continued to distribute the publication prepared last year, entitled "A Physician's Guide to the New York State Legislature," which describes the procedure of the State Legislature and contains necessary information and advice on how to contact legislators effectively. The division also prepared and distributed its publication entitled "1979 Health Legislation" which is a concise report on health bills of major interest to the medical profession acted upon during the session of the New York State Legislature. A similar report for the current 1980 session will be prepared and distributed after the vital information necessary is available.

ALBANY OPERATIONS

The director continued to represent our State Medical Society at the State Capitol during the 1980 session of the State Legislature. Working closely with the Society's legislative counsel, the director contacted key lawmakers and their staffs to discuss bills of interest to the medical profession and to promote the implementation of MSSNY's legislative program.

During the time the Legislature is in session, an answering service is in operation in Albany to assist the director in maintaining communication with the legislators and their staffs, county medical societies, individual physician members, and the State Society headquarters.

Our State Medical Society's weekly legislative bulletin, *Capitol News*, has been published in Albany during each session of the State Legislature since 1965. This publication was delivered each week to members of the Legislature, county medical society officers and executives, and key physicians throughout the State. The *Capitol News* is designed to keep its readers abreast of important developments in health legislation in New York State and to advise them of the opinion of the State Medical Society on the key health issues which are being discussed in the Legislature. To date, 21 issues have been distributed this year, with a final wrap-up issue to be published after the Governor has acted upon bills passed prior to the recent recess for a total of 22 issues for 1980.

LEGISLATIVE COUNSEL

The activities of our State Medical Society at the Capitol is a result of a joint effort by our division and our legislative counsel, the law firm of Rice & Conway. Mr. Rice and Mr. Conway established their own law firm after many years with the law firm of DeGraff, Foy, Conway and Holt-Harris, where they worked on MSSNY matters.

Communications setting forth MSSNY's views and positions on important health legislation were prepared by legislative counsel. All legislative memoranda were drawn up and reviewed in close cooperation with the division staff, which played a vital role in their preparation and mass distribution. The statements were filed with the Governor, the leadership in both chambers of the Legislature, chairmen and members of committees considering health bills, the sponsors of the bills, and other members of both houses. To reinforce these written statements, our legislative counsel and director met the lawmakers personally to discuss the bills in more detail. Our legislative counsel also worked closely with our director and other State Society representatives on government regulatory matters.

IV — *MISCELLANEOUS MATTERS*

PUBLIC HEARINGS & PRIVATE CONFERENCES

Since last September, our State Medical Society has presented a number of statements at public hearings conducted by governmental agencies and legislative committees. In addition, Society representatives, including our director and legislative counsel, have met privately with key administrative officials and lawmakers on a variety of important matters. Among the major topics addressed have been the no-fault auto insurance fee schedule and pending lawsuit, maternity delivery and drug information, professional licensure and discipline, malpractice reform legislation and the redefinition of physical therapy.

NEW YORK STATE ASSOCIATION OF THE PROFESSIONS (NYSAP)

Your Committee, through our director, worked very closely with the New York State Association of the Professions in regard to numerous legislative problems of common interest. Our director continued to serve on NYSAP's Board of Directors. He also served not only as a member of NYSAP's Legislation Breakfast Committee but acted as Chairman of the Legislation Committee.

MSSNY's involvement in NYSAP's activities was productive during 1980. The primary bill on NYSAP's legislation program was MSSNY's Professional Service Corporation Tax Benefits Bill. NYSAP also supported MSSNY when its President sent a telegram to the Governor requesting him to sign MSSNY's Collateral Sources Bill.

COMMITTEE MEETING — ANNUAL CONFERENCE

As mentioned frequently in this report, your Committee is scheduled to meet in September, at State Medical Society Headquarters, for the primary purpose of developing recommendations for MSSNY's 1981 State Legislation Program and your Committee's future activities, which will be submitted to the Council and the House. With the approval of the Council, our annual conference of county medical society legislative representatives was postponed until early 1980. At that time, a new-type conference in Albany was held, March 12, 1980, during which county society representatives discussed medicine's views in personal visits with legislators in their offices at the State Capitol. We believe that these meetings were a vital part of the successful effort to obtain passage of the Collateral Sources Bill, the Standard Health Claims Form Bill, and the Physicians' Committee Bill. Your Committee plans to continue this successful new-type of Albany Conference in early 1981, as a replacement for the fall meeting formerly held in Syracuse.

In order to ensure local physician participation in the development of our 1981 program, county medical societies have been invited to submit their recommendations to your committee not later than August 5.

ACKNOWLEDGMENTS

On behalf of your Committee, and especially your chairman, we thank all who cooperated with us. To legislative counsel, John C. Rice, Esq., and Gerard L. Conway, Esq., we are indebted for their work in furthering our legislative goals. We also express our gratitude to Henry I. Fineberg, M.D., Executive Vice-President, and Edward Siegel, M.D., Deputy Executive Vice-President, who were continuously involved with our Committee at the decision making level. Thanks also go to Martin J. Tracey, J.D., Director, Division of Governmental Affairs; Paul A. Tagliaferro, J.D., Assistant to the Director; and to Vita Chilleme and Florence Lynch, Division secretarial staff.

Respectfully submitted,

John H. Carter, M.D., *Chairman*

STATE LEGISLATION (SUPPLEMENTARY)

To the House of Delegates, Ladies and Gentlemen:

This report supplements the information contained in our annual report which was prepared in late June, 1980.

1980 LEGISLATIVE SESSION

The major phase of New York State lawmaking for 1980 was completed with Governor Carey's cleanup of action early in July on more than a thousand bills left to him by the politically divided Legislature, including three of the State Medical Society's proposals that had won approval of both legislative houses.

Three MSSNY Bills Approved by Legislature. The 1980 session was a most productive period for your Committee and MSSNY. For the first time in several years, a major MSSNY malpractice proposal, the Collateral Sources Bill, S.2071-B (Flynn); A.10396-B (Seminerio), passed both houses and went before the Governor, after an all-out, session-long drive rarely experienced in the State Capitol. Although the Governor subsequently vetoed the bill, its passage through both houses of the Legislature by wide margins indicates a recognition on the part of legislators of the continuing problem of medical malpractice insurance costs and a willingness on their part to take affirmative action to alleviate the situation.

Our President, G. Rehmi Denton, M.D., responded quickly to the Governor's veto by sending a letter strongly objecting to his negative action and requesting a meeting with the Chief Executive, which request has not yet been granted. Dr. Denton rebutted, strongly and in detail, the arguments cited by the Governor in his veto message. Our President also pointed out that the Governor's assertions in his memorandum were "strained and reveal that those who have advised you on this issue are lacking in any real understanding of the precarious situation which now prevails with respect to medical malpractice liability insurance." Copies of Dr. Denton's letter were sent to county medical society presidents; secretaries; executive directors; legislation chairmen; presidents, district branches; MSSNY's State Legislation Committee; and our own officers, councilors, and board of trustees. Our members were made aware of this important letter through an article summarizing its highlights in the August 1st issue of *NEWS OF NEW YORK*.

The Physicians Committee Bill, S.9917 (Rules), granting an exemption from the Public Health Law's misconduct reporting requirements to members of MSSNY's Committee working with physicians thought to be suffering from alcoholism, drug abuse, or mental illness, also won the Legislature's approval and was signed by the Governor, as one of his own program measures (Chapter 343, Laws of 1980).

A third MSSNY initiated and supported bill which gained approval by the Senate and Assembly was the Uniform Health Claims Form Bill, A.6845-A (Conners), which was recalled from the Governor's desk on the basis of information that Superintendent of Insurance Albert B. Lewis would recommend disapproval because of technical difficulties. Our State Medical Society felt that the position of the Insurance Department was based on incorrect information and so advised the sponsor of the bill, Assemblyman Richard J. Conners, Albany. Through the mutually cooperative efforts of our Legislative Counsel, Director, the Assemblyman, and the Medical Society of the County of Orange, through its president and executive director, principal county society advocate of the proposal, a meeting was held with the Superintendent. The end result was an agreement, acceptable to all involved, by the Superintendent to support an amended version of the proposal postponing the effective date of the measure from January 1, 1981, to January 1, 1982, which the sponsor will introduce for action by the Legislature later this year, if possible, or early in 1981.

Two Additional MSSNY Bills Considered. Two additional MSSNY proposals gained consideration by the Legislature. The first bill, S.8675 (Farley); A.10633 (Lentol), which would amend the Judiciary Law to prevent the physician panelist of a medical malpractice panel from being cross-examined as a witness at the trial of a malpractice claim, was held on third reading in the Senate due to objections raised by the Counsel to Senator Warren M. Anderson, Majority Leader. The second bill, S.1473 (Schermerhorn); A.6733 (Conners), which would prevent the automatic activation of the State Insurance Fund so long as professional liability insurance coverage is available through a private mutual insurance carrier, passed the Assembly but was held up in Committee in the Senate.

Negotiations Make Two Major Bills Acceptable. Intensive negotiations involving two important health bills, namely, the so-called Physical Therapy Bill and the Professional Discipline Bill, resulted in the development of final versions of these proposals, which made them acceptable to MSSNY.

Legislation defining the practice of physical therapy, extensively amended to resolve concerns expressed by the State Medical Society, was made law by the Governor's signature. The final version of the measure S.2613-E (Pisani, et al.); A.3843-E (Passannante, et al.), which became Chapter 618, Laws of 1980, carried changes sought and obtained by MSSNY representatives in extended and diligently pursued negotiations with the sponsors.

Agreements reached in the series of negotiations put into the measure (1) a clear statement that treatment by physical therapists shall be on referral from a physician and that the physician shall have the absolute right to issue directions relative to the particular kind and scope of treatment by the physical therapist; (2) a clear prohibition against the use of x-ray by physical therapists; (3) restriction of referring individuals to physicians, dentists, and podiatrists; and (4) clearly established physicians' authority to control and directly supervise physical therapists' assistants.

Governor Carey also signed into law a comprehensive bill supported by MSSNY after its representatives obtained in numerous conferences the inclusion of several major Society recommendations. The bill, A.11303-A (Siegel), which became Chapter 866 of the Laws of 1980, is designed to reform the State system for disciplining professionals with primary objectives of speeding the disciplinary process, redefining misconduct, increasing penalties, and better informing the public as to the system's operations.

Marijuana Cancer Therapy Bill Approved. In the last weeks of the session, a bill concerning cancer therapy came to the fore. Our State Medical Society supported A.11236 (Hevesi, et al.) which provides for the use of marijuana to alleviate the ill effects of cancer chemotherapy, glaucoma, and other therapeutic uses. This bill passed both houses and was signed by the Governor (Chapter 810, Laws of New York).

Many MSSNY Opposed Bills Defeated. Many key bills, strongly opposed by your State Medical Society, either failed to pass both houses of the Legislature or were never reported out of committee.

Legislation that would have established new conditions to the performance of an abortion of an unmarried woman under 18 years of age was opposed by your State Medical Society which, in a memorandum presenting its objections, emphasized that it was taking "no official position involving the pros and cons of abortion for moral, ethical, or philosophical reasons." The bill, A.11579 (Rules) (Nicolosi, et al.); S.9074 (Padavan, et al.), failed on two occasions to obtain the required 76 votes for passage in the Assembly.

MSSNY filed a 17-item statement of guidelines along with this memorandum declaring that it "does take the position that when and if an abortion is performed, that it be done under the guidelines apprended hereto." Your Society also stated in its memorandum that enactment of the proposal "would have a direct effect on the ability of physicians to make diagnoses and medical judgments in regard to treatments."

Efforts by our Albany representatives to halt the Optometric Drug Bill, S.2020 (Bernstein); A.2020 (Lasher), have been successful and the bill, therefore, is not likely to get through the Legislature this year. The two bills which were introduced into the Legislature regarding the Expanded Practice of Nursing, one on behalf of the Education Department, A.11056 (Rules), and the other on behalf of the Governor, A.11733 (Rules), also probably will not be taken up by the full Legislature during the current session. The proposal to Repeal the Present Prescription Two-Line Form and replace it with the objectionable one-line form, A.6212-C (Grannis), failed to pass the Assembly on a floor vote. The bill was strongly opposed by MSSNY.

A detailed final report on developments in Albany appeared in the July 14, 1980, issue of *Capitol News*.

COMMITTEE MEETING

Your Committee met at Society headquarters on September 17, 1980, to consider matters referred to the Committee by the Council and to develop MSSNY's 1981 State Legislation Program. Since it was impossible to schedule a meeting of the State Legislation Committee in time to present a report to the Council, this report is being submitted directly to the House of Delegates.

A. **Matters Referred to the Committee**

1. At its meeting on March 19, 1980, the Executive Committee considered the "Quality of Health Care Act," A.9231, sponsored by Assemblyman George W. Miller, and referred the bill to this Committee for its evaluation. The bill proposes that the Legislature shall provide in such manner, and upon such conditions as it may prescribe, for the establishment and regulation of a system of health services to insure that all citizens of this State will have access to quality health care as a matter of right.

In view of the fact that this bill died in Committee during the current session and recognizing, further, that Assemblyman Miller lost his bid for the Democratic nomination in his district, no immediate action was needed on the bill and, therefore, no action was taken.

B. **MSSNY 1981 State Legislation Program**

Your Committee reviewed the record of the 1980 session of the State Legislature concerning our 1980 State Legislation Program, as well as recommendations received from county medical societies and committees of our State Society, as a basis for formulating recommendations for the next session. In regard to proposed malpractice legislation, your Committee was advised by our Legislative Counsel and Director that preparations are well underway for a meeting of MSSNY's Ad Hoc Committee to meet with Representatives of the Trial Lawyers Association in mid-October. At this meeting, plans call for the agenda to include discussion of major issues, including the McGill Report recommendations involving structured awards, limitations or "caps" on awards, and numerous other items of proposed legislation, as well as pertinent proposals from other states. Following in-depth discussions, your Committee voted to recommend that measures similar to the following proposals be included in our *1981 State Legislation Program*. Since these proposals cease to exist at the end of the current session, new proposals must be introduced in the 1981 session.

1. *Structured Award — Investment Fund for Pain and Suffering Damages Over $100,000 Plus Special Damages* — would create an investment fund for pain and suffering damages over $100,000 for the benefit of the plaintiff for life. At death, the principal would be returned to the payor. The fund also would include special damages for loss of earnings, medical expenses, hospital charges, and other expenses as such expenses accrue or are incurred. At death, special damages would cease except for amounts attributable to loss of earning which would continue until the death of the surviving children or until they reach the age of 21. (S.4420-A, Pisani) (A.5678-A, P. M. Sullivan) (A.5684, Tallon)

2. *Reduction of Awards by Collateral Sources of Payment* — would require the court to reduce a personal injury award by the amount of any collateral payments made to a successful plaintiff pursuant to certain health insurance policies which such plaintiff might have. (S.2071-B, Flynn) (A.10396-B, Seminerio)

3. *No-Fault Insurance Law Amendments*

— would amend the No-Fault Insurance Law to provide that the Workers' Compensation fee schedule shall not be applicable when the patient has other medical insurance. (S.256-C, Marchi) (A.10168, Connelly)

— would amend the No-Fault Insurance Law to eliminate the Workers' Compensation fee schedule and substitute a mechanism providing for payment of usual and customary charges. (A.6553, Connelly)

4. *Professional Service Corporation Tax Law Amendments* — would amend the Tax Law to permit contributions paid on behalf of shareholders of Professional Service Corporations to pension plans to be accorded the same tax treatment as is afforded to shareholders of other business corporations. (S.3801, Pisani) (A.4681, Robach)

5. *Parallel Coverage — Emergency Care in Physicians' Offices* — would require every group insurance policy which provides for physicians' services to include coverage for emergency medical services provided in physicians' offices. (S.4448, Lombardi) (A.5688, Tallon)

6. *Medical Society Involvement in Physician Discipline* — would require the State committee on professional conduct to expand its scope to include a newly created county board of professional conduct to function at the county level. Such board would transmit its findings, conclusions, and recommendations to the State committee for its consideration and final recommendations to the State Health Commissioner. County board would be made up of not less than 5 physicians, members in good standing of a county medical society, a component part of MSSNY. (S.5681, Warder) (A.9708, Schimminger)

For Approval by the House of Delegates

REGENTS LEGISLATIVE CONFERENCE

The Board of Regents conducted its perennial Annual Legislative Conference in Albany on September 5, 1980. The purpose of this meeting is to give to each profession regulated by the State Education Department an opportunity to present its legislative recommendations and comments on the Regents' legislative proposals for the coming year. MSSNY's views were set forth in a statement by our Executive Vice-President, presented by our Director. Among the topics covered by our State Medical Society were the recently reacted statutes involving professional disciplinary procedures and physical therapy, as well as opposition to unwarranted expansion of paraprofessionals in the health fields and especially in the area of nursing. In addition, MSSNY strongly recommended the improvement of liaison activities between medicine and other regulated professions and the Board of

Regents in order to promote better understanding between professional organizations and the regulatory authorities.

Once again, your Chairman, on behalf of your Committee, conveys our thanks to all who participated in our endeavors during the 1980 session of the New York State Legislature. Your Chairman personally is most grateful to the members of the Committee for their continuing wholehearted cooperation.

Respectfully submitted,

John H. Carter, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

⟹ Your reference committee recommends that the annual and supplementary reports of the Committee on State Legislation be filed for information.

⟹ *. . . The annual and supplementary reports of the Committee on State Legislation were* **FILED FOR INFORMATION** *. . .*

The supplementary report of the Committee on State Legislation was reviewed.

Featured within the report was a presentation of the Medical Society of the State of New York's State Legislation Program for 1981 which would include measures similar to the following proposals:

1. Structured Award — Investment Fund for Pain and Suffering Damages Over $100,000 Plus Special Damages. (S.4420-A, Pisani) (A.5678-A, P. M. Sullivan) (A.5684, Tallon)
2. Reduction of Awards by Collateral Sources of Payment. (S.2071-B, Flynn) (A.10396-B, Seminerio)
3. No-Fault Insurance Law Amendments. (S.256-C, Marchi) (A.10168, Connelly) (A.6553, Connelly)
4. Professional Service Corporation Tax Law Amendments. (S.3801, Pisani) (A.4681, Robach)
5. Parallel Coverage — Emergency Care in Physicians' Offices. (S.4448, Lombardi) (A.5688, Tallon)
6. Medical Society Involvement in Physician Discipline. (S.5681, Warder) (A.9708, Schimminger)

⟹ Your reference committee recommends approval of this proposed legislative program.

⟹ *. . . The House, after discussion, voted to* **ADOPT** *this portion of the reference committee report . . .*

JUDICIAL COUNCIL

To the House of Delegates, Ladies and Gentlemen:

The Members of the Judicial Council are as follows:

Walter T. Heldmann, M.D., *Chairman*	Richmond
Thomas S. Bumbalo, M.D.	Erie
George L. Collins, Jr., M.D.	Erie
Ralph S. Emerson, M.D.	Nassau
Joseph J. Kaufman, M.D.	Wayne
G. Rehmi Denton, M.D., *President, ex officio*	Albany
Victor J. Tofany, M.D., *Secretary, ex officio*	Monroe

In accordance with the requirements of Article VII, Section 3 of the Bylaws, the Judicial Council held an organizational meeting on September 20, 1979, immediately following the close of the annual meeting of the House of Delegates. Walter T. Heldmann was elected chairman.

The Judicial Council is pleased to announce that no new appeals were presented to it to date, and, therefore, no meetings were held.

Last year, the Judicial Council reported that it had affirmed the decision of the Queens County Medical Society suspending a physician for ten (10) years for "overutilization, excessive treatment, therapy not justified by the diagnosis, doubtful, radical and costly procedures not indicated by the findings, and charging capricious, unconscionable, and excessive fees." Following this decision, the physician made a motion in the New York Supreme Court, Queens County, to annul the determination of the Medical Society of the County of Queens and the Medical Society of the State of New York.

The Office of General Counsel represented the Medical Society of the State of New York, while separate counsel represented the Medical Society of the County of Queens. In February, 1980, the Supreme Court, Queens County, annulled the determination against the physician and remanded the matter to the county medical society for re-hearing. The Court agreed with the Medical Society's position that the findings against the physician satisfied the requirements of substantiality and credibility. The determination against the physician was annulled, however, because of the Court's finding that the county medical society did not provide the physician with a copy of the sections of the Principles of Medical Ethics of the American Medical Association and the Principles of Professional Medical Conduct of the State Medical Society. The constitution and bylaws of the county medical society require the inclusion of the sections in the notice of the hearing. The Supreme Court, Queens County, held that the suspension involved in this case was in the nature of a forfeiture, and, as such, the disciplinary action would not be upheld unless the action was taken in strict compliance with the county medical society's and State Medical Society's bylaws.

While it was a disappointment to be overturned by the Supreme Court, Queens County, the Judicial Council remained heartened by the findings of the Court which held that the Judicial Council's findings satisfied all the evidentiary requirements. Overall, therefore, the decision affirms the authority of the Medical Society to render decisions involving the discipline of members, so long as the proper evidentiary and procedural requirements are adhered to in every phase of the hearing.

The chairman wishes to express his appreciation to J. Richard Burns, J.D., General Counsel, and Donald R. Moy, J.D., Staff Attorney, for their legal assistance, and to Mrs. Joan Grimm and Ms. Barbara Lacey for their fine secretarial work.

Respectfully submitted,

Walter T. Heldmann, M.D., *Chairman*

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⇒ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

⇒ Your reference committee recommends that the report of the Judicial Council be filed for information.

⇒ . . . *The report of the Judicial Council was* **FILED FOR INFORMATION** . . .

NEW YORK STATE ASSOCIATION OF THE PROFESSIONS

To the House of Delegates, Ladies and Gentlemen:

The representatives of the New York State Association of the Professions are as follows:

Henry I. Fineberg, M.D.
Carl Goldmark, Jr., M.D.
Martin J. Tracey, J.D.

The main purpose of the New York State Association of the Professions (NYSAP) is to promote legislation favorable to professions licensed to practice under the laws of the State of New York, and to their constituents, and to oppose any undesirable legislation. This objective includes regulations primarily those of the State Education Department and the Board of Regents.

NYSAP consists of eight organizations. These are: New York State Association of Architects; New York State Society of Certified Public Accountants; Dental Society of the State of New York; Medical Society of the State of New York; New York State Council of Landscape Architects; New York State Society of Professional Engineers; New York State Veterinary Medical Society; and Pharmaceutical Society of the State of New York.

Our State Medical Society was largely responsible for the establishment of NYSAP and was one of the founding organizations many years ago. Since its creation, MSSNY has been a principal and formidable supporter of the organization, not only through active participation in its activities but through financial contributions.

Three members of NYSAP's Board of Directors represent our State Medical Society. Two of them, MSSNY Executive Vice-President, Henry I. Fineberg, M.D., and Carl Goldmark, Jr., M.D., Past-President of MSSNY, were among the founding fathers. The third director, Martin J. Tracey, J.D., MSSNY Director, Division of Governmental Affairs, has been long active in the activities of the organization, particularly in regard to legislation.

A major benefit to MSSNY in belonging to NYSAP is that it has the opportunity to join with other licensed professions in presenting a united front on issues of common interest. Such opportunity presents itself frequently not only in the area of State legislation but in the field of regulations by State governmental agencies.

MSSNY plays an important role in the organization through the work of its Director of Legislation on the Board. As Chairman of NYSAP's Committee on Legislation, he is in a prime position. Our director not only advises the organization concerning our State Medical Society views regarding health legislation in general, but strongly advocates and works for endorsement of MSSNY's annual State legislation program. He has been successful in obtaining such endorsement and in gaining support of NYSAP in opposing poor health proposals.

During the year, MSSNY benefited in numerous ways from its participation in NYSAP. An excellent opportunity was afforded our representatives on the Board to meet key State legislators when they participated in NYSAP's second annual legislation breakfast held in Albany, March 11, 1980. Our director, not only served on the arrangements committee, but made the opening remarks as NYSAP's Legislation Committee Chairman. Strong support was given to major MSSNY legislative proposals when our Professional Service Corporations Tax Benefits Bill was made the primary bill in NYSAP's 1980 Legislation Program, and a telegram was sent by NYSAP to the Governor supporting MSSNY's Collateral Sources Bill.

As MSSNY's Directors on the Board, we are unanimous in the belief that NYSAP has an extremely important function to perform in presenting the views of the licensed professions in New York State to the State legislators in Albany on a united front basis. As a means of strengthening NYSAP, we feel that more individual members are needed. Once again, therefore, we recommend that a notice briefly explaining NYSAP and urging MSSNY members to become members of NYSAP be published in an appropriate MSSNY publication, if feasible, such as the *News of New York* and the *New York State Journal of Medicine.*

Respectfully submitted,

Henry I. Fineberg, M.D.
Carl Goldmark, Jr., M.D.
Martin J. Tracey, J.D.

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⇒ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

⇒ Your reference committee recommends that the report of the New York State Association of the Professions be filed for information.

⇒ . . . *The report of the New York State Association of the Professions was* **FILED FOR INFORMATION** . . .

PROFESSIONAL MEDICAL LIABILITY INSURANCE AND DEFENSE BOARD

To the House of Delegates, Ladies and Gentlemen:

The members of the Professional Medical Liability Insurance and Defense Board are as follows:

Herbert Lourie, M.D., *Chairman*	Onondaga
Ronald A. Andree, M.D., *Vice-Chairman*	New York
Charles F. Begg, M.D.	Nassau
Robert A. Breault, M.D.	Schenectady
Robert E. Fear, M.D.	Suffolk
William G. Hamilton, M.D.	New York
Antonio F. LaSorte, M.D.	Broome
Harold N. Schwinger, M.D.	Kings
M. Theodore Tanenhaus, M.D.	Kings

Victor J. Tofany, M.D., *ex officio* . . . . Monroe
Warren A. Lapp, M.D., *ex officio* . . . . Kings
Donald J. Fager, J.D., *Executive Secretary*,
ex officio . . . . New York
J. Richard Burns, J.D., *General Counsel*,
ex officio . . . . Nassau

This has been a busy and difficult year for the Board not only in terms of the amount of time devoted to evaluation of physicians' loss experience and classification problems, but in accepting the heavy burden of responsibility that decisions in these areas place on Board members. The Board is never unmindful of the serious implications, financial or otherwise, that its recommendations may have for fellow physicians and, accordingly, the Board adheres to a painstaking process to insure that physicians are treated fairly. It might be of interest to spell out in some detail the procedures involved.

A doctor's claim experience may be referred to the Board by our Society sponsored Medical Liability Mutual Insurance Company because his claim history stands out from his colleagues due either to the number of claims asserted against him (frequency) or to the probable cost of disposition of those claims (severity). Let me emphasize strongly at this point that a number of claims asserted against a physician, or even payments made on his behalf, does not lead the Board to any adverse conclusions. It is simply a statement that the physician's claim experience may warrant further investigation. That investigation will be conducted by his peers who, individually and collectively, have had many years experience evaluating the merit of malpractice claims. A doctor's record may also be referred because serious and disturbing questions have been raised about his methods of practice, based on his handling of one or more cases. He may also be referred if derogatory information about his conduct or method of practice has been brought to public attention.

In each case, Board members decide whether further inquiry is indicated. In many cases, they will simply suggest to the Company that no action be taken with reference to the doctor's insurance coverage and that his record be monitored for further claim activity with interim reports to the Board.

In some cases, the Board will decide to advise the doctor that his record is being closely watched even though they do not feel an interview is warranted at the time.

The Board's other option, of course, is to interview the physician in question, to examine his claims in great detail and try to identify, if possible, methods of practice which may be producing an unusual number of claims. The Board may decide to interview the physician directly or refer him for interview to one of its subcommittees in his special field, such as obstetrics and gynecology, neurosurgery, anesthesiology, or orthopedic surgery. (The Board has recently expanded its Advisory Committee on Plastic Surgery and these doctors will shortly accept Board referrals as a Subcommittee on Plastic Surgery.)

If the initial step is a subcommittee interview, the subcommittee will, in due course, make a report of its findings to the Board. The Board members may decide to adopt the subcommittee's recommendation or to defer action on the subcommittee's recommendation until they have interviewed the physician themselves. The Board, according to custom, has never adopted a recommendation that a physician's insurance be canceled without conducting its own interview. In all cases, the doctor is given ample notice in advance of the interview and is advised of the cases which will be discussed so he may have the opportunity to properly prepare himself. The interview, which generally lasts about an hour, will deal with the doctor's experience and training, his patient case load and fields of practice, his relationship with his patients, his methods of record keeping and any other areas which might give the Board members some insight into the doctor's practice and his exposure to professional liability.

If, after due deliberation, the Board members decide that the doctor's attitude, conduct, methods of practice or loss experience are such a great hazard as to make insuring him an unsound business practice or an unfair burden to the other policyholders, they may recommend to the Company that his insurance coverage be canceled. They may also recommend that the Company continue to offer coverage provided the doctor is agreeable to paying a surcharge; that is, a premium in excess of the normal premium. The Board may also recommend to the Company that coverage be provided for a doctor in areas of demonstrated competence but that he be denied coverage when in their judgment, he lacks the training and experience to engage in other areas of practice which are producing adverse loss experience. The Board may also recommend that the doctor continue to pay the normal premium rates subject to further review in the event that more claims are asserted against him or there are adverse developments on pending claims. Finally, since it is not the goal of the members to penalize but to do everything to help a physician reduce his claim experience in his own best interest and that of his fellow physicians who have to pay premiums, the Board may make a host of recommendations to the physician in an effort to reduce his exposure to malpractice claims.

It is important to observe, again, that a physician who is a member of the State Medical Society can not have adverse actions of the nature I have described taken against him by the Company without affording him the opportunity of a Board interview, provided only that he has not had an interview in the preceding three years.

During the past year we have found it necessary to recommend in several cases that insurance coverage be denied or that the policies of doctors be canceled. We have also recommended on a number of occasions that coverage be excluded in certain areas. Some of the exclusions for individual doctors were as follows: all breast and gynecological surgery; all intra-abdominal surgery; all endoscopic procedures; all general surgery (although coverage would be afforded in the category of general practice without surgery); all spinal surgery; all radiation therapy.

We continue to observe certain disturbing methods of practice which tend to produce excessive claim experience. They include the following:

Inadequate Communication with Patients; Failure to Keep Accurate Records; Failure to Restrict Patient Case Load to Numbers That Can be Reasonably Managed; Careless Billing and Collection Procedures Which Can Stimulate Litigation in Problem Cases; Failure to Seek Consultation in Difficult Cases.

We urge all physicians to be careful to avoid these pitfalls.

The Board continues to devote a considerable amount of time to classification questions. While the issues which arise are too numerous to list here, many of them involve understandable efforts by physicians to reduce their onerous malpractice premiums by limiting their activity. For example, Board Certified obstetricians and gynecologists have asked that their premiums be reduced because they limit their practice to gynecology. In the same vein, radiologists who do not administer therapy feel that their classification and rates should be reduced. While Board members are sympathetic to these requests, they cannot recommend a change in classification because there is insufficient data upon which to base such a change and, further, because they feel it will adversely affect the program if too many classifications are created without real credibility. However, the Board will continue to examine this problem closely in conjunction with the Company and its Special Committee to Study the Relativities of Territories and Specialties.

The Board is exceedingly grateful for the invaluable assistance it receives from its special subcommittees. The committees, made up of specialists from all parts of the State, can review with a very special insight the loss experience and methods of practice of their fellow specialist. As indicated previously, we have expanded the Advisory Committee on Plastic Surgery so that it will be able to function in the same manner as our subcommittees on obstetrics and gynecology, neurosurgery, anesthesiology, and orthopedic surgery. Further, we are planning to institute a subcommittee in the field of general surgery.

Our experience with the malpractice picture leads us to the inescapable conclusion that the malpractice crisis is very much with us and is worsening. We hope that the advice given to the members of the Society will help to improve the safety of our patients and in some small measure reduce liability exposure but we cannot make any impact upon the numbers of claims and the severity of awards without meaningful tort legislation.

I wish to express my sincere appreciation to all members of the Board, the Special Subcommittees and the County Malpractice Advisory Committees for their invaluable assistance.

Respectfully submitted,

Herbert Lourie, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Professional Medical Liability Insurance and Defense Board be filed for information.

⟹ . . . *The report of the Professional Medical Liability Insurance and Defense Board was* **FILED FOR INFORMATION** . . .

AD HOC COMMITTEE ON MARK A. SIEGEL'S BILL FOR A CONSUMER ORIENTED PHYSICIANS' DIRECTORY

To the House of Delegates, Ladies and Gentlemen:

The members of the Ad Hoc Committee on Mark A. Siegel's Bill for a Consumer Oriented Physician Directory are as follows:

John A. Finkbeiner, M.D., *Chairman*	New York
John H. Carter, M.D.	Albany
Ralph M. Schwartz, M.D.	New York

The Ad Hoc Committee on Mark A. Siegel's Bill for a Consumer Oriented Physician Directory did not meet this year. Assemblyman Siegel's bill was not acted upon in the Legislature; therefore, there was no reason for the Committee to have a meeting. Since potential exists for the reintroduction of this bill, it is recommended that this Committee be held in an inactive status, but not disbanded.

Respectfully submitted,

John A. Finkbeiner, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Ad Hoc Committee on Mark A. Siegel's Bill for a Consumer Oriented Physicians' Directory be filed for information.

⟹ . . . *The report of the Ad Hoc Committee on Mark A. Siegel's Bill for a Consumer Oriented Physicians' Directory was* **FILED FOR INFORMATION** . . .

AD HOC COMMITTEE TO MEET WITH ADMINISTRATIVE JUDGES OF NEW YORK STATE

To the House of Delegates, Ladies and Gentlemen:

The members of the Committee are as follows:

G. Rehmi Denton, M.D., *Chairman*	Albany
Richard D. Eberle, M.D.	Onondaga
Kenneth H. Eckhert, M.D.	Erie
Carl Goldmark, Jr., M.D.	New York
Milton Rosenberg, M.D.	Suffolk
Donald J. Fager, J.D., *Advisor*	New York

This Committee was appointed by Dr. Way following a meeting with the Administrative Judges of the State of New York in the fall of 1978. At that meeting Judge Richard J. Bartlett, then the Chief Administrative Judge, and some of his colleagues expressed reservations about the effectiveness of the Medical Malpractice Mediation Panels and complained that they were too time consuming and too costly. Subsequently, Judge Bartlett appointed an Ad Hoc Committee of Administrative Judges to determine if the panels had achieved their stated purposes and to make such recommendations as might be indicated. Chairman of the Committee was Judge Joseph F. Gagliardi, the Administrative Judge of the 9th Judicial District. Other members of the Committee were Honorable Arthur F. Cromarty, Administrative Judge of the 10th District (Suffolk County); Honorable John A. Doerr, Associate Justice of the Appellate Division, 4th Judicial Department; Honorable Edward R. Dudley, Assistant Administrative Judge of the 1st Judicial District; and Honorable William C. Thompson, Assistant Administrative Judge of the 2nd Judicial District.

In June, 1979, the Committee published a Preliminary Analysis of the Medical Malpractice Panels. The report described the procedures in various parts of the State regarding panel hearings, the disposition of cases (both before, during, and after panels), and verdicts following panel hearings. Basically, the study found that more cases were resolved after panel hearings than through the usual pre-trial process, but the cost of disposition of cases tended to be higher than after pre-trials. For the most part, the jury verdicts tended to mirror the findings of the panel, although there were several instances of verdicts which were exactly the opposite of a unanimous panel finding. The report was silent on the question of whether the panels achieved the legislative purpose of weeding out frivolous claims against physicians. There was no data with respect to cases which may have been discontinued after a unanimous finding for the defendants. These figures certainly seemed to be available since the range of monetary settlements from 0 to $10,000 was recorded, but there was no identification of those cases which were closed without any payment.

Judge Gagliardi solicited comments on the report from representatives of the Medical Society, Court personnel, and plaintiffs' and defendants' lawyers who specialize in the trial of these cases. On September 18, 1979, Dr. Way and I wrote to Judge Gagliardi summarizing the response of the Committee to the preliminary report (Appendix "A").

We were invited to participate in hearings held by Judge Gagliardi's Committee in Saratoga on Wednesday, September 26, 1979. Present at that hearing were Judge Gagliardi and two of his Committee members, Judge Cromarty and Judge Doerr. Presentations were made on behalf of the Medical Society by myself, Dr. Milton Rosenberg and Donald J. Fager. It was our position that the basic concept of the mediation panels was a good one and every effort should be made to strengthen it and correct any deficiencies that might exist. Concern was expressed, both by the judges and doctors, about the possible reluctance of some physicians to participate in the panel process because of fear that they might be subpoenaed at time of trial and subjected to lengthy cross-examination. Mr. Edward J. Herlihy, Deputy Director of the Office of Administration of the 3rd Judicial Department, took the position that the panels were working well in his area. While they had encountered some problems, they were overcome fairly easily. A plaintiff's lawyer, Mr. Kouray, felt that the panels were not effective but a lawyer for the defendants, James Carter, took just the opposite view. He said that he had had a number of experiences where cases were actually discontinued after a unanimous finding of no liability.

On October 30 and 31, further hearings were held at the World Trade Center in New York. Dr. Schwartz, Dr. Goldmark, Dr. Fineberg, Mr. Fager, and myself were present on behalf of the Society. There were several lawyers representing plaintiffs and defendants. Among the plaintiffs' lawyers were Charles Kramer, Abraham Fuchsberg, and Philip Magner; for the defendants, Harold Shapero, John Ganotis, and Herbert Lindenbaum. For the most part, the plaintiffs' lawyers seemed to be opposed to the panel system and wanted to abolish it, although Mr. Kramer admitted that he had had good success with the panels and was lukewarm in his opposition to the program. Most of the defense lawyers seemed to think that the panels were serving a worthwhile purpose. They indicated that, particularly in the hands of an enterprising judge, such as Judge Boyers in Queens, both sides benefited from the proceedings and they often led to negotiated settlements. Some lawyers felt that positions hardened after a hearing, making settlement more difficult. With the exception of Buffalo, where there have been problems from the start and where Judge Frank R. Bayger said that the panel process is an onerous and nonproductive one, the panels seemed to be working well Upstate. While the panels clearly are not as effective in many Downstate counties, they have been notably successful in the hands of certain judges.

It seems clear that both sides take the panel hearings very seriously and are extremely reluctant to have a unanimous finding against them. Plaintiff and defendant feel they have an advantage when they try a case in which the finding has been unanimously in their favor, although there was some expression of sentiment to the effect that the jurors are more ready to accept a unanimous plaintiff's finding than a finding of no liability. A number of the judges, and some lawyers, complimented the physicians, both for their cooperative attitude in participating in the panel hearings (availability of doctors in the Buffalo area was still said to be a problem) and for their fairness and impartiality in deciding these cases. Once again, there was discussion about eliminating the right to subpoena a physician in the case of a unanimous finding. While that view has support among doctors, and even among some lawyers, there is also concern that the inability to cross-examine a physician in these circumstances might cause the courts to question the constitutionality of the process.

Throughout the course of the hearings, the judges on the Committee expressed skepticism about the effectiveness of the panels. It was no secret that they felt the panels took too much of the court's time, which is ironic when you consider that the alternative would be numerous trials of undetermined length. They suggested a number of possible changes in the present system in which the doctor would play some kind of advisory role, working with the court to help effect settlements. This seemed to be a step backward and to have as its main goal the payment of money in every single case. The judges were asked to carefully consider giving the panels more teeth than they have at present; for example, legislation supported by the Society which would require the party who continues to trial in face of a unanimous finding against him to post a bond to pay attorney's fees.

We set forth our views in greater detail in a letter to Judge Gagliardi on February 22, 1980 (Appendix "B"). We strongly reaffirmed our support for the concept of the Mediation Panels while urging that efforts be made to improve and strengthen the process. However, as we had anticipated from the outset, the Committee of Judges decided that the panels were not accomplishing the legislative purpose for which they were established and in addition were expensive and time consuming. They recommended that the mandatory malpractice panels provided for in Section 148(a) of the Judiciary Law be abolished and replaced with an "optional mediation panel system." In our judgment, these proposals should be vigorously opposed because they will make the mediation process worthless. We should continue our efforts to improve the present system.

Respectfully submitted,

G. Rehmi Denton, M.D., *Chairman*

APPENDIX "A"

September 18, 1979

Honorable Joseph F. Gagliardi
Administrative Judge
Ninth Judicial District
Supreme Court of the State of New York
Westchester County Court House
111 Grove Street
White Plains, New York 10601

Dear Judge Gagliardi:

We appreciate receiving the report of the Ad Hoc Committee on Medical Malpractice Panels and the amendments thereto, and welcome the opportunity to express our thoughts.

While the report does indicate some significant problems in accomplishing the original goals of the panel system, it does reaffirm our strongly held belief that the screening process is a viable method of attempting to ameliorate some of the onerous problems that produced the medical malpractice crisis which still confronts us.

The screening panels seem to be making a real contribution to the disposition of cases prior to trial, thus effecting considerable savings in time and expense for our court system. At the same time, we are concerned that the average cost of settling a case seems to be higher after panel than through the usual court pre-trial. We would, therefore, suggest serious consideration of a mechanism to carry out screening panel hearings at a much earlier stage of the litigation process. We think this could be advantageous for a number of reasons: it might result in earlier compensation for the victim of true malpractice (we do not believe that patients who are injured by genuine malpractice should have to wait 4 or 5 or more years for compensation), it might eliminate physicians from groundless cases much sooner and it would certainly save all parties considerable expense.

We are troubled by the fact that although the report states that "the basic intent of this provision was to weed out frivolous claims against physicians" there are no statistics whatever to indicate whether that goal has been accomplished. We are extremely interested in the number of cases which may have been closed after a panel hearing without any payment. While the report is silent in that regard, we assume such figures are available and we would appreciate any additional information you can provide.

It seems that far too many cases result in findings which are not unanimous. We realize that some cases may not lend themselves to unanimity, but perhaps a firmer commitment to the system on the part of the bench and the bar could lead to more unanimous findings. For our part, we stand ready to do everything in our power to insure complete cooperation by members of the medical profession.

Further, we think that serious consideration should be given to possible legislative remedies to encourage more dispositions after a unanimous panel finding.

The ever worsening medical malpractice situation certainly requires that we all make every effort to see that the screening panels work in the manner in which they were intended.

We are grateful for your invitation to join you in Saratoga next week, and look forward to discussing these matters in greater detail at that time.

Sincerely yours,

George T. C. Way, M.D., *President*

G. Rehmi Denton, M.D., *President-Elect*

APPENDIX "B"

February 22, 1980

Hon. Joseph F. Gagliardi
Administrative Judge
Ninth Judicial District
Supreme Court of the State of New York
Westchester County Court House
111 Grove Street
White Plains, New York 10601

Dear Judge Gagliardi:

I wish to express my appreciation to you and your Committee for affording represenltives of our Society the opportunity to participate extensively in your hearings concerning the Medical Malpractice Panels. We think that the preliminary report and the subsequent hearings have given us an improved perspective on the functioning and effectiveness of the Panels. This information has reaffirmed our belief that the Panels, despite some serious shortcomings, can be an effective force in helping to alleviate the problems of increased malpractice claim activity and excessive awards which have produced a continuing malpractice crisis.

While firmly supporting the concept of the Panels, we do feel that efforts should be made to improve and strengthen the process. We would, therefore, respectfully make the following recommendations:

> Steps should be taken to establish uniform procedures. The hearings clearly establish that the Panels are extremely effective in certain areas of the State (most Upstate areas and some Downstate) and are not as effective in others. It is apparent that different judges adopt widely differing procedures with decidedly uneven results. In an effort to improve procedure and produce some uniformity of approach, we would suggest that a brochure be distributed to judges, doctors, and lawyers who serve on the Panels outlining procedures to be followed.
>
> Consider recommending to the legislature that sanctions be imposed (e.g. make the plaintiff post a bond to cover costs) if the plaintiff proceeds to trial in the face of a unanimous finding of "no liability" and the jury verdict is consistent with that finding. We think that this might help to weed out frivolous claims which, of course, was one of the basic reasons for initiating the Malpractice Panels.

We think that the parties should be offered the option of submitting their case to binding arbitration and if they are agreeable, have the Panel hear the case, as arbiters, and render a binding decision. (Perhaps this might start out as a pilot project in a few counties.)

Panel hearings might be scheduled at an earlier point in the litigation process to provide for a more rapid disposition of cases and to help dampen inflationary pressures caused by excessive delay.

We think that more complete records should be kept to determine the ultimate disposition of cases after Panel hearings. As we indicated, we would like to know how many cases are either discontinued or not actively pursued after a finding of "no liability."

We were especially pleased to note that the judges and attorneys at your hearings were almost unanimous in their praise for the complete impartiality manifested by the physician members of the Panels. We pledge ourselves to do everything in our power to insure continued cooperation by members of the medical profession to the end of achieving equitable results for all parties. As you know, however, some doctors have expressed considerable anxiety about giving up their time to serve as panel members and then find themselves subpoenaed and required to spend considerable time in court. We would welcome any suggestions you might have to relieve their concern in this regard.

We would be happy to discuss these recommendations further with you, if you deem it advisable.

Sincerely,

G. Rehmi Denton, M.D., *President*

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Ad Hoc Committee to Meet with Administrative Judges of New York State be filed for information.

⟹ . . . *The report of the Ad Hoc Committee to Meet with Administrative Judges of New York State was* **FILED FOR INFORMATION** . . .

SUBCOMMITTEE ON LEGAL AFFAIRS

To the House of Delegates, Ladies and Gentlemen:

The members of the Subcommittee on Legal Affairs are as follows:

Ralph M. Schwartz, M.D., *Chairman*	Kings
George L. Collins, Jr., M.D.	Erie
Ralph S. Emerson, M.D.	Nassau

The encroachment of government, both Federal and State, on the practice of medicine continues to affect every physician in this State, as well as the entire nation. This encroachment requires a strong response from the Medical Society, and in matters where intrusions into the practice of medicine are unwarranted and unjustified, and where negotiation has failed, litigation has been commenced.

The encroachment of government in the practice of medicine at its most insidious and obnoxious form is seen in *State of New York v. AMA, et al.* In this action, the Attorney General of the State of New York has named the State Medical Society, Nassau County Medical Society, and Henry I. Fineberg, M.D., among fourteen defendants in an anti-trust suit filed in the United States District Court for the Eastern District of New York. In the complaint, the Attorney General has alleged that the defendants have engaged in a "combination" and "conspiracy" to isolate and eliminate chiropractic, which has caused harm in the delivery of health care services in the State of New York.

In April of 1980, the Medical Society filed a motion to dismiss the anti-trust claim based on the Donnelly Act, the State anti-trust law. This motion, which was joined by all the other defendants, argued that the Donnelly Act does not apply to the professions. Judge George C. Pratt of the United States District Court granted the Society's motion and dismissed the Donnelly claim against the defendants. The Attorney General may re-assert the Donnelly claim if he is successful on appeal in *People v. Roth, et al.** Regardless of the outcome of the issue of the applicability of the Donnelly Act, the lawsuit will continue on the basis of Federal anti-trust provisions. The claims under the Federal statutes do not contain the monetary penalties imposed under the Donnelly Act. We are confident, however, that the defendants will prevail in this matter as it will be shown that the State's claim is without merit and groundless.

General Counsel of the Medical Society has continued to work closely with our litigators in all aspects of this case. This matter is of such vital concern to all physicians of this State that the House of Delegates has voted that the Medical Society take all necessary legal steps to defend the lawsuit.

In 1979, G. Rehmi Denton, M.D., Allison B. Landolt, M.D., and the Medical Society, commenced an action in the United States District Court, Northern District of New York, to challenge the legality of section 29.2(a)(6) of the Rules of the New York State Board of Regents. This regulation provides that unprofessional conduct includes the failure of a physician to provide copies of medical records to the patient upon request. It is the contention of the plaintiffs that the regulation is contrary to legislative intent (Section 17 of the Public Health Law) and deprives physicians of their property rights in medical records without due process of law. In June, 1979, the United States District Court dismissed the claim on the legal grounds that, as of yet, no State action has been taken or threatened against any individual physician for the alleged violation of the provision. Because of this, the claim was held not to be an "Actual Case or Controversy" which is required by the United States Constitution for actions pending in Federal courts. While this was a setback, the decision was not based on the actual merits of the case, and, as such, it was decided by the Council to reinstitute the challenge in the New York Supreme Court, Third Department.

The General Counsel continues to work with our Albany litigators in our action attacking the constitutionality of the Insurance Law, section 678, which requires that changes by health care providers in "No-Fault" cases be billed in accordance with the Workers' Compensation Fee Schedule. There have been numerous adjournments in this suit because of attempts to resolve the problem with the Superintendent of Insurance and Chairman of the Workers' Compensation Board.

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* See *People v. Roth, et al.* mentioned in this report.

In *News Group Publications, Inc., and Arthur Greenspan v. Blum* (*Commissioner, New York State Department of Social Services*) a proceeding was commenced in the Supreme Court, New York County, by the New York Post to require the Department of Social Services to release information regarding the names of providers of Medicaid-reimbursed abortions. While other groups have intervened as amicus curiae in this suit, the Medical Society's position is distinct in that the Medical Society has sought to represent the point of view of physicians. It is the Medical Society's contention that any release of identities of the providers of abortion services would cause public harassment and pressure against such providers.

As of the date of this writing, a compromise is under consideration wherein the newspaper group may agree to write to individual clinics to inform them that they are seeking data, and, that if the clinic does not object to making the information public, it should write to the Department of Social Services to authorize the Department to release the information.

In *People v. Roth, et al.*, eight physicians were indicted for allegedly engaging in a concerted effort to resign their authorization to treat nonemergency Workers' Compensation patients, and to refuse to treat nonemergency No-Fault patients. The Medical Society filed an amicus brief with the County Court, Nassau County, to argue that the anti-trust law in which these physicians were indicted, the Donnelly Act, does not apply to the medical profession. The County Court dismissed the indictments on this specific legal point. The Medical Society again submitted an amicus brief when the Attorney General appealed the matter to the Appellate Division, Second Department. When the Appellate Division affirmed the dismissal, the Attorney General immediately sought leave to appeal to the Court of Appeals, the State's highest court. The Subcommittee has learned that the Court of Appeals has decided to hear the appeal. The Council has provided the approval for the Medical Society to again intervene, through the filing of an amicus brief.

In July of 1979, the Medical Society became concerned with the announcement of the State Health Department of their plan to implement the Statewide Planning and Research Cooperative System ("SPARCS"). The project's goal is to establish a data bank to record the care given every patient in every general hospital. Statements were prepared to express the Medical Society's concern over the potential abuses in confidentiality that could result without the proper safeguards. In addition, our General Counsel and others met with representatives of the Hospital Association of the State of New York (HANYS) to coordinate activities. As a result of this activity, some changes in regulations, to our satisfaction, were added. Overall, however, it was decided that it would not be fruitful to commence a legal challenge. This decision was made in consideration of the general authority of the State to collect data and the commitment taken by HANYS in favor of "SPARCS."

The Office of General Counsel has continued to follow the case, *Greater New York Hospital Association v. Blum*, which involves the challenge of the Medicaid "demonstration project" imposed on certain nonprofit hospitals in New York City by officials of New York State. Under the so-called "demonstration project" commenced in March, 1979, State nurses entered the nonprofit hospitals and made their own decisions as to the medical necessity, quality, and appropriateness of hospital care. The hospital brought suit for declaratory and injunctive relief and in September of 1979, the United States District Court, Eastern District of New York, declared the "demonstration project" contrary to Federal law and enjoined its further operation. The suit is presently on appeal before the United States Court of Appeals for the Second Circuit. While our General Counsel, and other of our representatives, continues to consult with the attorneys for the plaintiff, the Medical Society has no intention to intervene in the lawsuit at the present time.

The General Counsel is currently reviewing a summons and complaint from a physician seeking an order to direct the Medical Society to reimburse him for his expenses in defending a malpractice action. The physician was named a defendant in 1977 as a result of alleged malpractice that occurred in 1962. The physician was not covered by malpractice insurance, since his insurer had become bankrupt. The House of Delegates had voted to discontinue the practice of providing financial assistance for uninsured members at its 1973 meeting.

Litigation is expensive, but often becomes necessary to contest unjustified laws or regulations that impede physicians in providing good medical care. The Legal Fund established by the Medical Society is currently sufficient to conduct our legal activities, and this Subcommittee shall continue to make its recommendation as to the adequacy and needs of the fund.

Respectfully submitted,

Ralph M. Schwartz, M.D., *Chairman*

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

⟹ Your reference committee recommends that the report of the Subcommittee on Legal Affairs be filed for information.

⟹ . . . *The report of the Subcommittee on Legal Affairs was* **FILED FOR INFORMATION** . . .

Resolution 80-47, AMA Principles of Medical Ethics

Introduced by Leo J. Swirsky, M.D., as an Individual

Whereas, A member in a national organization has no right to expect that he/she will be in agreement with every stand taken by the said organization; and

Whereas, Paying dues to the organization is tacit approval and acceptance of the national organization's general attitudes; and

Whereas, The AMA has published new moral and ethical standards which must be unacceptable to every member of the Medical Society of the State of New York; and

Whereas, As these new ethical standards may precipitate very significant changes in the delivery of health care in the United States; and

Whereas, The AMA has in effect implemented the changes without meaningful national discussion, and has accepted bureaucratic interpretation of "restraint of trade laws" without court interpretation; and

Whereas, It would be a disservice to our medical heritage and our patients to proclaim our basic medical tenets to be false; and

Whereas, In a world where morality is at a very low ebb, lack of moral courage and expedience should not be medicine's keystone; and

Whereas, The most effective protest is to withhold dues and membership; therefore be it

Resolved, That the Medical Society of the State of New York be asked not to bill members for AMA dues; and be it further

Resolved, That the reason for the action be explained to the members; and be it further

Resolved, That this resolution be sent to the MSSNY Council for implementation, and that a copy be sent by the MSSNY to the AMA, c/o James Todd, M.D., Chairman, Ad Hoc Committee on the Principles of Medical Ethics.

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

The new moral and ethical standards of the AMA were strenuously objected to by the New York Delegation, but were adopted by the AMA despite this opposition.

The Medical Society of the State of New York is presently operating under its own Principles of Professional Conduct which will be reviewed in the near future by this Society.

⟹ Your reference committee recommends that Resolution 80-47 be not adopted.

⟹ . . . *The House, after discussion, voted to* **NOT ADOPT** *Resolution 80-47 . . .*

Resolution 80-37, The Care of the Elderly Outside of the Hospital

Introduced by Medical Society of the County of Queens

Whereas, The care of the elderly in hospitals is frequently unduly prolonged because of the unavailability of skilled nursing facilities to which these patients can be transferred; and

Whereas, Many of these patients could be adequately treated at home where their families could care for them if adequate home health care were provided and paid for by Medicare; and

Whereas, At the present time Medicare reimbursement for such services is limited to four hours a day, five days a week; and

Whereas, Such patients frequently require much more care than reimbursement presently allows; and

Whereas, The cost of maintaining a patient in the hospital is far greater than the cost of providing skilled home health care; therefore be it

Resolved, That the Medical Society of the State of New York seek amendment of the regulations of the Federal government and of the State of New York to provide reimbursement for home health care for periods of up to twenty-four hours a day, seven days a week, if required for the adequate care of the patient and to prevent the institutionalization of the patient for reasons not requiring such institutional care.

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

This resolution would require a revision at the Federal level, consequently your reference committee felt that this matter should be submitted to the AMA for implementation.

Therefore, your reference committee recommends that this resolution be referred to the Council for its consideration in preparing a resolution to be submitted by the Medical Society of the State of New York's delegation at the next meeting of the AMA House of Delegates.

⟹ . . . *The House, after discussion, voted to* **REFER** *Resolution 80-37 to the Council . . .*

Resolution 80-7, Malpractice Crisis

Introduced by Westchester County Medical Society

Whereas, A malpractice crisis has always existed and still does exist; and

Whereas, The present cost of professional medical liability insurance for physicians just entering private practice, those with established practices, and those who are near retirement, is outrageously high; and

Whereas, The cost of professional medical liability insurance plays a large role in the escalating costs of health care delivery; and

Whereas, The Medical Liability Mutual Insurance Company was established by members of the Medical Society of the State of New York in good faith to address a portion of the malpractice problem, and the costs of such a problem have escalated far beyond what was ever anticipated; and

Whereas, The recommendations of the McGill Commission, appointed by Governor Carey, have been ignored; therefore be it

Resolved, That the Medical Society of the State of New York advise the government of the State of New York in no uncertain terms that a malpractice crisis exists today; and be it further

Resolved, That MSSNY urge the government of the State of New York to permit the Medical Liability Mutual Insurance

Company to impose a rule that only members of MSSNY may participate in the insurance plan; and be it further

Resolved, That the Governor and Legislature of the State of New York adopt all the recommendations of the McGill Commission; and be it further

Resolved, That MSSNY advise the Medical Liability Mutual Insurance Company that organized medicine cannot accept any further increases, even if this means discontinuing the program.

PAST HOUSE ACTION: Resolution 75M-1

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

Although your reference committee is in agreement with the intent of this resolution, it was felt that certain portions of the resolution were inappropriate. Therefore, your committee wishes to present the following substitute resolution:

Resolved, That the Medical Society of the State of New York again advise the government of the State of New York in no uncertain terms that a malpractice crisis exists today; and be it further

Resolved, That the Medical Society of the State of New York continue to urge the Governor and Legislature of the State of New York to adopt the recommendations of the McGill Commission.

⟹ Your reference committee recomends the adoption of the substitute resolution for Resolution 80-7.

The House amended the substitute resolution for Resolution 80-7 by the deletion of the phrase "in no uncertain terms" in the first Resolved and the insertion of the phrase "and the legislative program of the Medical Society of the State of New York" in the second Resolved. The Resolved portion would then read as follows:

Resolved, That the Medical Society of the State of New York again advise the government of the State of New York that a malpractice crisis exists today; and be it further

Resolved, That the Medical Society of the State of New York continue to urge the Governor and Legislature of the State of New York to adopt the recommendations of the McGill Commission and the legislative program of the Medical Society of the State of New York.

⟹ . . . *The House, after discussion, voted to* **ADOPT** *the amended substitute resolution in lieu of Resolution 80-7* . . .

Resolution 80-17, Change in the Composition of the Present Mandatory Medical Malpractice Pre-Trial Panels

Introduced by Norman S. Blackman, M.D., as an Individual

Whereas, Allegations of medical malpractice are allegations of professional medical wrong doing; therefore be it

Resolved, That the Medical Society of the State of New York take all the necessary steps without delay to modify the present legal composition of the mandatory pre-trial medical malpractice screening panels to consist of an expert physician chosen by the plaintiff, one chosen by the defendant, and a third agreed on by these two, all of whom shall be paid by the State of New York as impartial agents and advisors to the judge and jury concerning professional medical wrong doing; and be it further

Resolved, That the written findings of this panel, either by the individual members, or by consensus, shall be provided to the judge and jury in a subsequent trial, without in any way limiting further testimony by other expert witnesses for or against either litigant; and be it further

Resolved, That, if selected in this manner, serving on such a panel "pro bono publico" at least once a year, shall be a requirement for continuing medical licensure in the State of New York.

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

Your reference committee heard extensive testimony on this resolution and concurs in the basic premise that a pretrial hearing panel consisting of independent physicians would, indeed, improve the quality of the process of evaluating the merit or lack of merit of individual malpractice cases. Nevertheless, being cognizant of the fact that a committee of government and legislative leaders, members of the legal profession, and physicians from the State Society has been formed to examine all possible solutions to the malpractice crisis, existing and proposed, your reference committee feels that this resolution is unnecessary and would possibly be unduly restrictive in its effect upon the physician members of the study committee. Your reference committee, therefore, recommends that this resolution be not adopted.

⟹ . . . *The House, after considerable discussion, voted to* **NOT ADOPT** *Resolution 80-17* . . .

Resolution 80-23, Countersuits for Frivolous, Specious or Groundless Medical Malpractice Suits

Introduced by Robert M. Kohn, M.D., Delegate, Section on Internal Medicine

Resolved, That the Medical Society of the State of New York urge the Legislature of the State of New York to enact legislation to allow countersuits for legal fees and other costs against attorneys who bring or permit to be brought frivolous, specious or groundless medical malpractice suits.

PAST HOUSE ACTION: Resolution 79-30

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

Legislation to accomplish the purpose of this resolution has been prepared and initiated into the legislature by the Law Revision Commission. The State Society has strongly supported the proposal of the Law Revision Commission, S.2218 (Barclay) which is now in the Senate Codes Committee. Your reference committee fully agrees with the purpose of this resolution and recommends its adoption.

⟹ Your reference committee recommends that Resolution 80-23 be adopted.

⟹ . . . *The House, after discussion, voted to* **ADOPT** *Resolution 80-23 . . .*

Resolution 80-46, Effect of New York Law Reforming Professional Discipline

Introduced by Medical Society of the County of Queens

Whereas, Chapter 866 of the Laws of 1980 of the State of New York empowers the Health Department of the State of New York to investigate and prosecute physicians who are involved in professional disciplinary proceedings; and

Whereas, Hospitals are required to report extensive confidential data on each discharged patient who is identified only by medical record number; and

Whereas, This discharge data duplicates the same data sent to Professional Activities Study (PAS) from those hospitals who subscribe to this system; and

Whereas, This data contains the license number of attending physician(s); and

Whereas, Uncontrolled access to this information removes all evidence of confidentiality between the patient and physician, since the identity of the physician is easily ascertained by the license number; and

Whereas, The law now empowers both investigation and prosecution by the Department of Health which now can ask a computer to print out a record of all hospital care rendered by any particular physician under investigation; therefore be it

Resolved, That the Medical Society of the State of New York use every effort to obtain a modification of the procedure of the Department of Health so that the license number of each physician treating patients shall not be included in the report provided to the New York State Department of Health; and be it further

Resolved, That the Medical Society of the State of New York use its best efforts to obtain a repeal of that section of Chapter 866 of the Laws of 1980 of the State of New York which permit investigation and prosecution of physicians by the Health Department of the State of New York, returning prosecution to the province of the Attorney General where it rightfully belongs.

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

After prolonged discussion, your reference committee was not convinced that present safeguards are inadequate for the preservation of physicians' and patients' confidentiality. Furthermore, the section of Chapter 866 of the Laws of 1980 addressed in the second Resolved clause was designed to make attorneys available to the Division of Professional Medical Conduct on a permanent basis rather than on an ad hoc basis and has no substantive effect on the handling of misconduct cases, other than to expedite their handling. This provision was unanimously approved by all professions involved as being essential to the efficient and effective handling of misconduct cases.

⟹ Your reference committee recommends that Resolution 80-46 be not adopted.

The House amended Resolution 80-46 by deleting the second Resolved.

⟹. . . *The House, after considerable discussion, voted to* **NOT ADOPT** *Resolution 80-46 as* **AMENDED** (*181 Voting: 120 required to pass; 75 Yes; 106 No*) . . .

Resolution 80-6, Determination of Death

Introduced by Broome County Medical Society

Whereas, For some time life support systems that are capable of sustaining circulatory and respiratory function even after a person has suffered a permanent cessation of brain function have been in daily use; and

Whereas, The common law definition of death has evolved on the basis of circulatory and respiratory function and has not recognized the critical significance of brain death; and

Whereas, Countless families have been put through undue mental anguish; and

Whereas, Physicians in New York State have been confused as to what legally constitutes death and are faced with potential criminal or civil liability in the absence of an explicit legal definition of death; therefore be it

Resolved, That the Medical Society of the State of New York wholeheartedly support an amendment to Section 1, p 4140-a of the public health law of the State of New York, which reads as follows:

> Determination of death. A person shall be dead when in the announced opinion of a duly licensed physician, based on prevailing standards of medical practice, such person has experienced an irreversible cessation both of spontaneous respiratory and circulatory functions. If the use of artificial means of support precludes a determination that these functions have ceased, a person shall be dead if in the announced opinion of a duly licensed physician, based on prevailing standards of medical practice, such person has experienced a total and irreversible cessation of brain function.

PAST HOUSE ACTION: Resolution 78-24
Position Statement Adopted by Council April 28, 1977

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

Your reference committee reviewed the previous actions of the House of Delegates and the Council regarding the determination of death. In view of the fact that the House and the Council have repeatedly endorsed legislation which would implement the purpose of this resolution and that the Council as recently as March 20, 1980, endorsed A.9004 (Tallon) which is substantially the same as the language contained in Resolution 80-6, your committee believes that adoption of this resolution is unnecessary.

⟹ Your reference committee recommends that Resolution 80-6 be not adopted.

After discussion in the House the reference committee changed its recommendation to adopt Resolution 80-6.

⟹ . . . *The House, after discussion, voted to* **ADOPT** *Resolution 80-6 . . .*

Resolution 80-8, Curtailment of Subpoena Powers of the Board of Professional Conduct

Introduced by Medical Society of the County of Erie

Whereas, Chapter 773 of the Laws of 1977 gives the Board of Professional Conduct the power to subpoena the medical records of physicians who have voluntarily sought psychiatric care in any investigation or proceeding by the Board involving such physicians; and

Whereas, This practice, if allowed to continue, may deter physicians from obtaining necessary psychiatric care; therefore be it

Resolved, That the Medical Society of the State of New York, seek to have Chapter 773 of the Laws of 1977 amended so that the medical records of physicians who have voluntarily sought psychiatric care cannot be subpoenaed by the Board of Professional Conduct in the absence of an express waiver by the physician-patient.

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

Your reference committee noted that subdivision 11(e) of subsection 230 of Chapter 773 of the Laws of 1977 expressly prevents disclosure by a physician of information received as a result of rendering treatment to another physician.

⟹ Your reference committee recommends that Resolution 80-8 be not adopted.

⟹ . . . *The House voted to* **NOT ADOPT** *Resolution 80-8 . . .*

Resolution 80-24, Compensation for Service on Government Mandated and Funded Hospital Committees

Introduced by Robert M. Kohn, M.D., Delegate, Section on Internal Medicine

Resolved, That the Medical Society of the State of New York seek such changes in legislation and/or regulation to insure that physicians who serve on government mandated and government funded hospital committees, such as audit and utilization committees, be compensated by the hospital out of government funds provided to the hospital for that purpose.

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

Your reference committee heard extensive testimony regarding this resolution and felt that it should be amended to read as follows:

Resolved, That the Medical Society of the State of New York support the introduction of such changes in legislation and/or regulation to insure that physicians who serve on federally mandated and funded hospital committees, such as audit and utilization committees, be compensated by the hospital out of government funds provided to the hospital for that purpose.

⟹ Your reference committee recommends that Resolution 80-24, as amended, be referred to the Council with the recommendation that the Council give consideration to having the New York Delegation to the AMA introduce a similar resolution at the next meeting of the House of Delegates of the American Medical Association.

⟹ . . . *The House, after considerable discussion, voted to* **REFER** *Resolution 80-24, the amended resolution, and discussion in the House pertinent to this matter to the Council . . .*

Resolution 80-34, Drug Information to Expectant Mothers Required by Chapters 484 and 485 of the Laws of 1978

Introduced by Laurence G. Roth, M.D., Delegate, Section on Obstetrics and Gynecology

Whereas, Chapters 484 and 485 of the Laws of 1978 were enacted with the best of goals without the benefit of adequate counsel of those most concerned with and able to provide drug information to expectant mothers; and

Whereas, The continuation of Chapters 484 and 485 of the Laws of 1978 causes those attending expectant mothers to violate this law because it does not allow for lack of knowledge of a specific nature and lack of opportunity to provide information under all circumstances about all drugs used in the care of expectant mothers; and

Whereas, Efforts to amend Chapters 484 and 485 of the Laws of 1978 have been unsuccessful; therefore be it

Resolved, That the Medical Society of the State of New York continue the legislative effort to repeal Chapters 484 and 485 of the New York State Laws of 1978 which require that the physician or nurse-midwife in attendance shall inform the expectant mother of the drugs that they expect to employ during pregnancy, and of the obstetrical and other drugs that can be used at birth, and of the possible effects of such drugs on the child and mother; and be it further

Resolved, That the MSSNY formulate a program that will meet the needs for providing appropriate information to expectant mothers in cooperation with the American College of Obstetricians and Gynecologists (ACOG), the American Academy of Pediatrics (AAP), and voluntary health agencies who are concerned with caring for expectant mothers.

PAST HOUSE ACTION: Resolution 78-18

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⟹ *Report of the Reference Committee on Governmental Affairs and Legal Matters:* The following report was presented by Seymour R. Stall, M.D., *Chairman.*

Your reference committee reviewed the previous actions of the House of Delegates and the Council and heard extensive testimony regarding recent developments relative to the subject matter of the resolution. In view of the fact that the Council has already proceeded in efforts to implement the purposes of Resolution 78-18 and legislation embodying the most recent action of the Council on this matter has been introduced into the legislature, A.9660-A (Cochrane), your reference committee believes that this resolution is unnecessary.

⟹ Your reference committee recommends that Resolution 80-34 be not adopted.

⟹ . . . *The House, after discussion, voted to* **ADOPT** *Resolution 80-34 . . .*

⟹ . . . *The House voted to* **ACCEPT** *the reference committee report as acted upon by the House . . .*

BYLAWS

PROPOSED AMENDMENTS TO THE BYLAWS

⟹ *Report of the Reference Committee on Bylaws:* The following report was presented by Daniel F. O'Keeffe, M.D., *Chairman.*

These resolutions, together with the minutes of the reference committee hearing, will be forwarded to the House Committee on Bylaws for its consideration and action.

Resolution 80-1, Reduced Dues for Young Physicians Entering Practice

Introduced by Medical Society of the County of Kings

Whereas, Most residencies take five years, during which time these young physicians have a very limited income; and

Whereas, Start up expenses during the first two years of solo practice are enormous; and

Whereas, It is obviously of the utmost importance to attract these individuals to our ranks as early as possible; therefore be it

Resolved, That the Medical Society of the State of New York grant young physicians in solo practice an additional two years of reduced dues for a total of seven years, instead of the present five years (not counting military service) from the year of graduation; and be it further

Resolved, That Article XV "Dues," paragraph 3 of the Bylaws of the MSSNY be amended by the deletion of the word "five" and the insertion of the word "seven" in the first sentence, and the deletion of the word "seven" and the insertion of the word "nine" in the last sentence of the paragraph.

Article XV, paragraph 3 would then read:

"The dues and assessments of those active members who have been graduated from medical or osteopathic college not more than seven calendar years, not counting active service in the armed forces of the United States or in the United States Public Health Service, shall be one third the amount levied on all other active members. The dues and assessments of those active members who have not completed their continuous residency training shall be one tenth the amount levied on all other active members. In no case may an active physician continue to pay such reduced dues more than nine years after the date of graduation from medical or osteopathic school."

PAST HOUSE ACTION: Resolution 79-14

Resolution 80-11, Bylaws Amendments to Provide Staggering of Dues-Paid Deadlines at each Level of the Federation

Introduced by Medical Society of the County of Erie

Whereas, The Bylaws of the Medical Society of the State of New York provide that any active member, whose component county medical society and State Society dues are unpaid after May 1 of any current year is not in good standing and shall be deemed to be in arrears; and

Whereas, These Bylaws also provide that a member whose dues are unpaid after June 1 of any current year shall be dropped from the roles of membership of his component county medical society and the Medical Society of the State of New York; and

Whereas, The Constitution and Bylaws of the American Medical Association provide that a member is delinquent if his dues and assessments are not received by the American Medical Association by April 30 of the year for which they are prescribed, and shall forfeit his membership if dues and assessments are not received within thirty days after notice of delinquency has been mailed to the member's last known address; and

Whereas, It is administratively impossible for members' dues to be received, processed and transmitted from the County to the State, and hence to the AMA to meet identical deadlines presently stipulated in the above-mentioned bylaws when the member submits his dues payment within the prescribed period, but close to the May 1 or June 1 deadlines; therefore be it

Resolved, That Article XV — "Dues," paragraphs 6 and 7 of the Bylaws of the Medical Society of the State of New York be amended by the deletion of the words "and State Society" after the word "society," and the deletion of the words "May 1" and the insertion of the phrase "March 1, and State Society dues are unpaid after April 1" after the phrase "are unpaid after" in paragraph 6; the insertion of the words "county society" after the word "whose" and the deletion of the words "June 1" and insertion of the phrase "April 1 or whose State Society dues are unpaid after May 1" after the phrase "are unpaid after" in paragraph 7; to provide that, a member failing to pay component county dues by March 1 and State Society dues by April 1, shall be deemed to be not in good standing and in arrears; and that a member who fails to pay County dues by April 1 and State Society dues by May 1 shall be dropped from membership in the County and State Societies.

Article XV — "Dues" paragraph 6 and 7 of the Bylaws of the Medical Society of the State of New York would then read as follows:

"Any member, except a member who is eligible for and has applied for life membership, whose component county medical society dues are unpaid after March 1, and State Society dues are unpaid after April 1 of any current year or whose assessments are unpaid by the specified time is not in good standing and shall be deemed to be in arrears.

"A member whose county society dues are unpaid after April 1 or whose State Society dues are unpaid after May 1 of any current year or whose assessments are unpaid one month after the specified date shall be dropped from the roles of membership of his component county medical society and the Medical Society of the State of New York upon reasonable notice to such member by his component county medical society or the State Society, and without further action on the part of either the component county medical society or the State Society, and on such date he shall automatically cease to be a member of the component county medical society and State Society."

and be it further

Resolved, That Article 11, Section 2, paragraphs 9 and 11 of the Bylaws of the Medical Society of the State of New York be amended by the deletion of the words "and the Medical Society of the State of New York" after the word "society," and the deletion of the words "May 1" and the insertion of the phrase "March 1, and State Society dues are unpaid after April 1" after the phrase "dues are unpaid" in paragraph 9; the insertion of the words "county society" after the word "whose" and the deletion of the words "June 1" and the insertion of the phrase "April 1 or whose State Society dues are unpaid after May 1" after the phrase "are unpaid after" in paragraph 11; so as to effectuate these changes. Paragraphs 9 and 11 would then read as follows:

"Any member, except a member who is eligible and has applied for life membership, whose component county medical society dues are unpaid after March 1, and State Society dues are unpaid after April 1 of any current year or whose assessments are unpaid by the specified time is not in good standing and shall be deemed to be in arrears."

"A member whose county society dues are unpaid after April 1 or whose State Society dues are unpaid after May 1 or whose assessments are unpaid one month after the specified date shall be dropped from the rolls of membership of his component county medical society and the Medical Society of the State of New York upon reasonable notice to such member by his component county medical society, or the State Society, and without further action on the part of either the component county medical society or the State Society, and on such date he shall automatically cease to be a member of both the component county medical society and the State Society."

and be it further

Resolved, That Article XVIII, Section 3 of the Bylaws of the Medical Society of the State of New York be amended so as to substitute the word "April" for the word "May" in paragraph 3, line 8 thereof. Paragraph 3 as amended would then read as follows:

"The treasurer of each component county medical society shall forward to the treasurer of the Medical Society of the State of New York the amount of the State Society per capita dues and/or assessments and the amount of all American Medical Association dues collected from members of his component county medical society as promptly as possible but in any event before the first day of April of each year."

PAST HOUSE ACTION: Resolution 76-1

Resolution 80-14, Distribution of Expense Money by the Medical Society of the State of New York to Each District Branch

Introduced by First District Branch

Whereas, Each district branch received $1,000 from the Medical Society of the State of New York to defray its expenses; and

Whereas, The First District Branch has over 12,000 members, while three district branches have less than 1,000 members, three district branches have less than 2,000 members, and two district branches have between 2,000 and 3,500 members; and

Whereas, The distribution of expense money is disproportionate in relation to the number of members in each district branch, and as such represents inequities; therefore be it

Resolved, That the Medical Society of the State of New York amend Article XVI, paragraph 6 of its Bylaws by the deletion of the phrase "not to exceed $1,000" and the insertion of the phrase "in proportion to the number of members in the district branch, $1,000 to district branches of less than 2,000 members; $2,000 to district branches of more than 2,000, but less than 4,000 members; $5,000 to district branches of more than 4,000 members" after the word "sum."

Article XVI, paragraph 6 of its Bylaws to read as follows:

"Each district branch shall be entitled to receive a sum in proportion to the number of members in the district branch, $1,000 to district branches of less than 2,000 members; $2,000 to district branches of more than 2,000, but less than 4,000 members; $5,000 to district branches of more than 4,000 members, exclusive of the work done by the Medical Society of the State of New York regarding notices, programs, and so on, to defray the expenses of such district branch, provided a proper statement of such expenses shall have been presented to the secretary."

Fiscal Note: $1,000 to district branches of less than 2,000 members; $2,000 to district branches of more than 2,000, but less than 4,000 members; $5,000 to district branches of more than 4,000 members. Total amount at current membership listings, $15,000.

PAST HOUSE ACTION: Resolution 68-55

Resolution 80-20, Deletion of Article XI, Section 4, Committee on Prize Essays

Introduced by Edward Siegel, M.D., as an Individual

Whereas, Article XI, Section 3 of the Bylaws of the Medical Society of the State of New York states that it shall be the duty of the Committee on Prize Essays to receive all essays offered in competition for prizes which may be offered by the Medical Society of the State of New York; and

Whereas, There is only one award given for a prize essay; and

Whereas, The reasons for creating a committee for this one item are no longer valid; and

Whereas, There is presently a Council Committee on Awards and Prize Essays; therefore be it

Resolved, That the Committee on Prize Essays be abolished, that its function be transferred to the Council Committee on Awards and Prize Essays, and that Article XI, Section 4 of the Bylaws of the Medical Society of the State of New York be deleted.

Article XI, Section 4 of the Bylaws reads as follows:

"A Committee on Prize Essays shall be appointed by the president with the approval of the Council. It shall consist of three members, including the chairman. It shall be the duty of this committee to receive all essays offered in competition for prizes which may be offered by the Medical Society of the State of New York. The committee shall make all necessary rules and regulations for the awarding of prizes, subject to the term of the deeds of gift, and shall report the results at the next annual meeting of the House of Delegates. It shall give notice through the official publication of the State Society or by other methods of the amount of the prize and when the essays shall be submitted to the committee."

Resolution 80-27, Proposed Revisions of the Principles of Professional Conduct

Introduced by Clifford L. Spingarn, M.D., as an Individual

Whereas, The Speaker of the House of Delegates has requested that a review of the PRINCIPLES OF PROFESSIONAL CONDUCT be made by the House Committee on Bylaws; and

Whereas, The fact that this study of the PRINCIPLES OF PROFESSIONAL CONDUCT has been called to the attention of the Committee on Ethics; and

Whereas, In the spirit of being cooperative with this study, the Council Committee on Ethics has proposed the attached update and revision of the PRINCIPLES OF PROFESSIONAL CONDUCT; therefore be it

Resolved, That the attached draft of the revised PRINCIPLES OF PROFESSIONAL CONDUCT be considered by the House Committee on Bylaws in accordance with Article XX of the Bylaws.

PROPOSED REVISIONS

PRINCIPLES OF PROFESSIONAL CONDUCT

DRAFT

CHAPTER I — *General Principles*

Section 1: The prime object of the medical profession is to render competent medical service with compassion and respect for human dignity.

Section 2: These Principles of Professional Conduct shall apply to doctors of medicine as individuals or as members of staffs of hospitals, clinics, colleges, schools, foundations, companies, partnerships, corporations or groups, by whatsoever name they may be known.

Section 3: The Medical Society of the State of New York does not prohibit the use of advertising when used in making certain information known to the public, which is entitled to know the names of physicians, the types of their practice, the location of their office, their office hours, fixed fees for specified routine professional services and biographical data that will enable people to make a more informed choice of a physician.

The physician may furnish this information through the accepted local media for advertising; i.e., office signs, professional cards, dignified announcements, telephone directory listings, reputable directories and news media, which are open to all physicians on like conditions.

Solicitation of patients not in the public interest, directly or indirectly by a physician, by groups of physicians, clinics, institutions or organizations is unethical. Solicitation shall include:

(1) The not always obvious devices of furnishing or inspiring, by use of public relations firms or the news media, comments concerning cases in which the physician, group or institution has been or is concerned;

(2) the use of statements or claims intended or likely to create inflated or unjustified expectations of favorable results;

(3) the use of statements or claims that are self-laudatory and imply that the physician's skills are superior to other physicians engaged in his field or specialty of practice;

(4) offering gratuitous services or discounts in connection with professional services.

Section 4: Doctors of Medicine may provide appropriate information regarding important medical and public health matters which have been discussed during open medical meetings or in technical papers, which have been published, and he may reveal information regarding a patient's physical condition if the patient gives his permission, but he should seek the guidance of appropriate officials and designated spokesmen of component or constituent medical societies. When any sort of medical information is released to the public, the promise of radical cures or boasting of cures or extraordinary skill or success, is unethical.

Section 5:

(a) The acceptance of rebates on prescriptions or appliances or of commissions from attendants who aid in the care of the patient is unethical.

(b) When a patient is referred by one doctor of medicine to another for consultation or treatment, the offering, giving, soliciting or receiving any fee or other consideration is unethical.

(c) The prescription or dispensing by a doctor of medicine of secret medicines or other secret remedial agents, of which he does not know the composition or the manufacture or promotion of their use is unethical.

(d) A doctor of medicine shall not have any financial interest in or own a pharmacy or an optical dispensing facility, unless it is established to the satisfaction of the local county medical society that such participation or ownership is necessary to meet the needs of the community.

(e) Drugs, remedies or appliances may be dispensed or supplied by the physician provided it is in the best interests of the patient or in areas where they are not available.

CHAPTER II

Section 1: A doctor of medicine is free to choose whom he will serve. He should respond to any request for his assistance in an emergency.

Section 2: Once having undertaken a case, the doctor of medicine should not neglect the patient, nor should he withdraw from the case without giving notice to the patient and/or his relatives or his guardian sufficiently long in advance of his withdrawal to allow them to secure another medical attendant.

Section 3: The doctor of medicine should safeguard the confidences which he may receive from his patient; this obligation extends beyond the period of professional services. None of the privacies of individual or domestic life, no infirmity of disposition or flaw of character observed during medical attendance, should ever be divulged by doctors of medicine except when required by state law or by the courts.

Section 4: All voluntarily associated activities with cultists are unethical. Such activities lower the honor and dignity of the profession; in the same degree, it elevates the honor and dignity of the cultist.

CHAPTER III

Section 1: Every doctor of medicine should aid in safeguarding the profession against admission to it of those who are deficient in moral character or education.

Section 2: A doctor of medicine should expose, without fear or favor, incompetent or corrupt, dishonest or unethical conduct on the part of members of the profession.

CHAPTER IV

Section 1: Doctors of medicine should request consultations in perplexing cases, and the attending doctor of medicine should cheerfully consent to a consultation when desired by the patient or his representative.

Section 2: All due respect should be observed toward the doctor of medicine in charge of the case and no statement or remark should be made which would unjustly impair the confidence reposed in him.

Section 3: As soon as possible after the consultant has seen the patient, he should address the doctor of medicine in charge and advise him of the results of his investigation. Statements then may be made to the patient and/or his family or guardian in presence of all doctors of medicine concerned or unless another arrangement has been consented to by all physicians involved.

Section 4: The doctor of medicine in charge of the case is responsible for treatment of the patient. Consequently, he may prescribe for the patient at any time and is privileged to vary the treatment outlined and agreed on at a consultation whenever, in his opinion, such change is warranted. However, after such a change, it is best to call another consultation; then the doctor of medicine in charge should state his reasons for departing from the course decided at the previous conference. When an emergency occurs during the absence of the doctor of medicine in charge, a consultant may assume authority until the arrival of the doctor of medicine in charge.

Section 5: It may happen that the attending doctor of medicine and the consultant cannot agree in their views of the case or of the treatment to be pursued; with the consent of the patient another consultant may be called.

Section 6: When a doctor of medicine has acted as consultant in an illness, he should not become the doctor of medicine in charge in the course of that illness, except with the consent of the doctor of medicine who was in charge at the time of the consultation, unless the patient insists on the change.

Section 7: When a doctor of medicine makes social calls on another doctor of medicine's patient, he should avoid conversation about the patient's illness.

Section 8: A doctor of medicine should not take charge of, or prescribe for, another doctor of medicine's patient during any given illness (except in an emergency) until the other doctor of medicine has relinquished the case or has been formally dismissed.

Section 9: When a doctor of medicine does succeed another doctor of medicine in charge of a case, he should not disparage, by comment or insinuation, the one who preceded him. Such comment or insinuation tends to lower the confidence of the patient in the medical profession and so reacts against the patient, the profession, and the critic.

Section 10: When a doctor of medicine is called in an emergency because the personal or family doctor of medicine is not at hand, he should provide only for the patient's immediate need and should withdraw from the case on the arrival of the personal or family doctor of medicine. However, he should first report to the personal or family doctor of medicine the condition found and the treatment administered.

Section 11: Whenever a doctor of medicine requests another doctor of medicine to attend his patients during his temporary absence from his practice, professional courtesy requires the acceptance of such appointment if consistent with his other duties. The doctor of medicine acting under such an appointment should give the utmost consideration to the interests and reputation of the absent doctor of medicine. All such patients should be restored to the care of the latter upon his return.

CHAPTER V

Section 1: A doctor of medicine should not dispose of his services under conditions that make it impossible to render adequate service to his patients, except under circumstances in which the patient concerned might be deprived of immediately necessary care.

Section 2: Contract practice as applied to medicine means the practice of medicine under an agreement between a duly licensed doctor of medicine or a group of doctors of medicine, as principals or agents, and a corporation, organization, political subdivision, or individual, whereby partial or full medical services are provided for a group or class of individuals on the basis of a fee schedule, or for salary or for a fixed rate per capita. Contract practice per se is not unethical. Contract practice is unethical if it permits of features or conditions that are declared unethical in these Principles of Professional Conduct or if the contract or any of its provisions causes deterioration of the quality of the medical services rendered. Contract practice which allows diversion of fees for professional medical services to a hospital, organization, or political subdivision is unethical.

Section 3: It is not unethical for a fee to be prorated among two or more doctors of medicine when such physicians have actively participated in the medical and/or surgical care of a patient and each physician's fee is commensurate with the services he had rendered. The patient who has received such joint services shall be advised of the participation of each physician and shall receive a separate, itemized statement from each.

CHAPTER VI

Section 1: Doctors of medicine, as good citizens, possessed of special training, should promote the health of the community wherein they dwell. They should bear their part in enforcing the laws of the community and in sustaining the institutions that advance the interests of humanity. They should cooperate especially with the proper authorities in the administration of sanitary laws and regulations.

Section 2: Doctors of medicine should enlighten the public concerning quarantine regulations and measures for the prevention of epidemic and communicable diseases. At all times the doctor of medicine should notify the constituted public health authorities of every case of communicable disease under his care, in accordance with the laws, rules, and regulations of the health authorities. When an epidemic prevails, a doctor of medicine must continue his labors without regard to the risk of his own life.

Enforcement of the Principles of Professional Conduct

Component county medical societies should cooperate with the properly constituted authorities in the enforcement of the laws to the State of New York and of their respective localities relating to the public health and to the practice of medicine and should report promptly to such authorities any evidence received by them indicating any violation of such laws. The commission of an act or acts by a doctor of medicine which would subject him to reprimand or discipline or which would subject his license to practice medicine to revocation, suspension, or annulment shall constitute a violation of these Principles of Professional Conduct.

Amendments or Alterations

Any component county medical society may adopt other or amend or alter these regulations respecting professional conduct, binding only upon its own members if not inconsistent or in conflict with these Principles of Professional Conduct, or with the Bylaws of the Medical Society of the State of New York.

Enforcement, Discipline, and Punishment

Each component county medical society is charged with the duty of carrying out and enforcing, within its jurisdiction, the terms and provisions of these Principles of Professional Conduct. Any breach or infraction of any one or more of the terms or provisions of these Principles of Professional Conduct, or of any one or more of the terms or provisions of any further or additional regulations respecting professional conduct adopted as herein provided by any component county medical society shall subject the offender to and shall be sufficient cause for discipline. Each component county medical society, through bylaws, provisions adopted in accordance with its own constitution and bylaws and in accordance with the Bylaws of the Medical Society of the State of New York, shall (a) fix and determine the degree or degrees of discipline and the nature and extent of the penalty or punishment which may be imposed and shall (b) adopt its own rules and regulations of methods and procedure respecting all disciplinary investigations, proceedings, and action. Interpretations and rulings of each component county medical society with respect to these Principles of Professional Conduct or with respect to any further and additional regulations respecting professional conduct adopted by it as herein provided shall be binding upon its members until modified, revised, or reversed upon appeal by the Medical Society of the State of New York, or by a court of competent jurisdiction.

APPENDIX I

The Oath

I swear by Apollo the physician and Aesculapius and Hygeia and Panacea and all the gods and goddesses that according to my ability and judgment I will keep this Oath and this stipulation — to reckon him who taught me this Art equally dear to me as my parents — to share my substance with him and relieve his necessities if required — to look upon his offspring in the same footing as my own brothers and to teach them this Art if they shall wish to learn it without fee or stipulation — and that by precept, lecture and every other mode of instruction, I will impart a knowledge of the Art to my own sons and those of my teachers and to disciples bound by a stipulation and oath, according to the Law of Medicine, but to none others.

I will follow the system of regimen which according to my ability and judgment I consider for the benefit of my patients and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to anyone if asked nor suggest any such counsel; and in like manner I will not give to a woman a pessary to produce abortion. With purity and with holiness I will pass my life and practice my Art. I will not cut persons laboring under the stone but will leave this to be done by men who are practitioners of this work. Into whatever houses I enter, I will go into them for the benefit of the sick and will abstain from every voluntary act of mischief and corruption, and further from the seduction of females or males, of freemen and slaves. Whatever in connection with my professional practice or not in connection with it I see or hear in the life of men which ought not to be spoken of abroad I will not divulge, as reckoning that all such should be kept secret.

While I continue to keep this Oath unviolated, may it be granted to me to enjoy life and the practice of the Art respected by all men in all times. But should I trespass and violate this Oath, may the reverse be my lot.

Hippocrates
(460–357 B.C.)

Prayer

I begin once more my daily work. Be thou with me, Almighty Father of Mercy, in all my efforts to heal the sick. For without Thee, man is but a helpless creature. Grant that I may be filled with love for my art and for my fellowmen. May the thirst for gain and the desire for fame be far from my heart. For these are the enemies of Pity and the Ministers of Hate. Grant that I may be able to devote myself, body and soul to thy children who suffer from pain.

Preserve my strength, that I may be able to restore the strength of the rich and the poor, the good and the bad, the friend and the foe. Let me see in the sufferer the man alone. When wiser men teach me, let me be humble to learn, for the mind of man is so puny and the art of healing is so vast. But when fools are ready to advise me or to find fault with me, let me not listen to their folly. Let me be intent upon one thing, O Father of Mercy, to be always merciful to thy suffering children.

May there never rise in me the notion that I know enough, but give me strength and leisure and zeal to enlarge my knowledge. Our work is great and the mind of men presses forward forever. Thou has chosen me in thy grace, to watch over the life and death of Thy creatures. I am about to fulfill my duties. Guide me in this immense work so that I may be of avail.

Maimonides
(1135–1204 A.D.)

Declaration of Geneva

At the Time of Being Admitted as Member of the Medical Profession:

I solemnly pledge myself to consecrate my life to the service of humanity.

I will give to my teachers the respect and gratitude which is their due.

I will practice my profession with conscience and dignity.

The health of my patient will be my first consideration.

I will respect the secrets which are confided in me.

I will maintain by all means in my power, the honor and the noble traditions of the medical profession.

My colleagues will be my brothers.

I will not permit considerations of religion, nationality, race, party politics or social standing to intervene between my duty and my patient.

I will maintain the utmost respect for human life, from the time of conception; even under threat, I will not use my medical knowledge contrary to the laws of humanity.

I make these promises solemnly, freely, and upon my honor.

Adopted by the General Assembly of the World Medical Association at Geneva, Switzerland, September, 1948.

Resolution 80-30, Privileges of Student Members

Introduced by Richard N. Pierson, M.D., as an Individual

Whereas, Student members are encouraged to read the New York State Journal of Medicine; and

Whereas, Sending the New York State Journal of Medicine to all student members, whether or not requested by the student member, may be an unnecessary expense; therefore be it

Resolved, That Article II, Section 2 of the Bylaws of the Medical Society of the State of New York be amended by deleting paragraph 4 and by inserting a new paragraph 4 to read: "Student members shall be entitled to receive the *News of New York*. Each student member shall only be entitled to receive the *New York State Journal of Medicine* upon his individual written request. Student members shall not be entitled to receive the *Medical Directory of New York State*."

Article II, Section 2, paragraph 4 of the Bylaws would then read as follows:

> "Student members shall be entitled to receive the *News of New York*. Each student member shall only be entitled to receive the *New York State Journal of Medicine* upon his individual written request. Student members shall not be entitled to receive the *Medical Directory of New York State*."

PAST HOUSE ACTION: Substitute Resolution for Resolutions 73-54, 73-89, and 73-103

Resolution 80-31, Resident Membership in the Component County Medical Societies and the Medical Society of the State of New York

Introduced by Richard N. Pierson, Jr., M.D., as an Individual

Whereas, The constitution and/or bylaws of the component county medical societies regarding membership of graduates of medical or osteopathic schools who are in continuous residency training are not uniform; and

Whereas, Some residents are unable to join component county medical societies because some component county medical societies either do not provide for membership for residents or expressly exclude residents; and

Whereas, Some deserving residents are therefore deprived of the benefits of membership by being excluded from membership by these bylaws; and

Whereas, The Medical Society of the State of New York is deprived of membership when a component county medical society excludes residents from membership; and

Whereas, Residents deprived of MSSNY membership in this manner may join the American Medical Association directly; and

Whereas, The AMA has in the past year successfully recruited approximately 3,000 "direct resident members" with dues at $35, indicating that there is interest among residents in organized medicine; and

Whereas, Less than 100 residents are members of MSSNY; and

Whereas, The AMA has agreed no longer to solicit or accept direct resident memberships if MSSNY component societies uniformly accept resident members; therefore be it

Resolved, That the Bylaws of the Medical Society of the State of New York be amended to require each county medical society to have in existence in its constitution and/or bylaws provisions to admit residents for membership; and be it further

Resolved, That Article XVIII, Section 2 of the Bylaws of the Medical Society of the State of New York be amended by adding paragraphs 5 and 6 to read:

"Every component county medical society shall provide for membership for graduates of recognized medical or osteopathic schools who are in continuous residency training. The constitution and/or bylaws of the component county medical society shall provide that residents shall be eligible for membership whether or not they are duly licensed and registered to practice in the State of New York. The resident members will have all the rights and privileges of active membership. Dues and assessments for the members in continuous residency training shall be no more than one-tenth the amount levied on all other active members."

"Except by the approval of the Council, no resident may be a member in a component county medical society other than that of the county where he is in residency training or where he maintains his legal residence"; and be it further

Resolved, That Article II, Section 1, paragraph 1 of the Bylaws of the Medical Society of the State of New York be amended by deleting the word "four" and by adding the word "five" and by adding the phrase "(e) resident."

Article II, Section 1, paragraph 1 would then read as follows:

"The membership in the Medical Society of the State of New York shall be divided into five classes: (a) active, (b) life, (c) honorary, (d) student, and (e) resident; and be it further

Resolved, That Article II, Section 1 be amended by adding a new paragraph 9 to read:

"Resident memberships shall be limited to graduates of recognized medical or osteopathic schools who are in continuous residency training and who are resident members of a component county medical society. Any resident denied membership in the component county society (societies) not withstanding the provisions of Article XVIII, Section 2, paragraphs 5 and 6 of these Bylaws shall be eligible to join the Medical Society of the State of New York directly as a resident member;" and be it further

Resolved, That Article II, Section 2 of the Bylaws be amended by adding a new paragraph after paragraph 4 to read:

"The dues and assessments of resident members shall be no more than one-tenth the amount levied on all other active members. The resident members shall be accorded all the rights and privileges of active membership. They shall be entitled to receive the *New York State Journal of Medicine* and the *News of New York*, but the *Medical Directory of New York State* only on request."

and be it further

Resolved, That Article XV, paragraph 3 of the Bylaws of the Medical Society of the State of New York be amended by deleting the sentence:

"The dues and assessments of those active members who have not completed their continuous residency training shall be one-tenth the amount levied on all other active members."

Article XV, paragraph 3 will then read:

"The dues and assessments of those active members who have been graduated from medical or osteopathic college not more than five calendar years, not counting active service in the armed forces of the United States or in the United States Public Health Service, shall be one third the amount levied on all other active members. In no case may an active physician continue to pay such reduced dues more than seven years after the date of graduation from medical or osteopathic school."

Resolution 80-32, Student Membership

Introduced by Richard N. Pierson, Jr., M.D., as an Individual

Whereas, Article II, Section 1, paragraph 4 of the Bylaws of the Medical Society of the State of New York provides that whenever a student member ceases to be enrolled in a recognized school of medicine he shall be considered to have resigned from membership from the Medical Society of the State of New York; and

Whereas, It should be clarified that this clause does not apply to members who are no longer enrolled by reason of graduation; therefore be it

Resolved, That Article II, Section 1, paragraph 4 of the Bylaws be amended by inserting the phrase, "other than by reason of graduation" after the words "Doctor of Medicine" in the last sentence of paragraph 4.

Article II, Section 1, last sentence of paragraph 4 would then read as follows:

". . . When a student member ceases to be enrolled in a recognized school of medicine in the State of New York pursuing a course of study leading to a degree of Doctor of Medicine, other than by reason of graduation he shall be considered to have resigned from membership in the Medical Society of the State of New York";

and be it further

Resolved, That Article II, Section 1 be amended by adding a new paragraph after paragraph 4 to read:

"Upon graduation from medical school, the student member shall not be considered to have resigned from the Medical Society of the State of New York if he shall within a reasonable period apply for active membership or any other class of membership in which he shall be eligible."

Resolution 80-33, Membership for Students Enrolled in Osteopathic Schools

Introduced by Richard N. Pierson, Jr., M.D., as an Individual

Whereas, Under Article II, Section 1, paragraph 2 of the Bylaws of the Medical Society of the State of New York active membership is limited to graduates of recognized medical or osteopathic schools; and

Whereas, Under Article II, Section 1, paragraph 4 of the Bylaws of MSSNY student membership is limited to those members enrolled in recognized medical schools in the State of New York, who are pursuing a course of study leading to a degree of Doctor of Medicine; therefore be it

Resolved, That Article II, Section 1, paragraph 4 of the Bylaws of the Medical Society of the State of New York be amended by inserting the words "or osteopathic" after the word "medical" in line two; by inserting the words "or Doctor of Osteopathy" after the words "Doctor of Medicine" in line four; by inserting the words "or school of osteopathy" after the word "medicine" in line twelve; and by inserting the words "or Doctor of Osteopathy" after the words "Doctor of Medicine" in line fourteen.

Article II, Section 1, paragraph 4 would then read as follows:

"Student members shall be those members enrolled in recognized medical or osteopathic schools in the State of New York who are pursuing a course of study leading to the degree of Doctor of Medicine or Doctor of Osteopathy. Eligible students may become members of the Medical Society of the State of New York. Concurrent membership in a component county society and the American Medical Association is not a requirement for student membership. They shall apply for student membership on a form supplied by the secretary together with such dues as are fixed by the House of Delegates. When a student member ceases to be enrolled in a recognized school of medicine or school of osteopathy in the State of New York pursuing a course of study leading to a degree of Doctor of Medicine or Doctor of Osteopathy, he shall be considered to have resigned from membership in the Medical Society of the State of New York; and be it further

Resolved, That Article II, Section 1, paragraph 5 be amended by adding the words "or osteopathic" after the word "medical."

Article II, Section 1, paragraph 5 would then read as follows:

"A student member who is suspended from the rights and privileges of his medical or osteopathic school shall likewise be suspended for the same period from the Medical Society of the State of New York."

Resolution 80-48, Unified Membership in County, MSSNY, and AMA

Introduced by New York County Medical Society

Whereas, The State of New York has a physician population of 48,000; and

Whereas, Only 26,100 (55%) are members of the Medical Society of the State of New York; and

Whereas, Of these 26,100 only 13,855 are members of the American Medical Association; and

Whereas, The AMA is the only "medical organization of medical organizations"; and

Whereas, The need for a unified membership becomes essential because of the encroachment of medicine by government and all other third parties; therefore be it

Resolved, That the Medical Society of the State of New York institute a campaign directed to all physicians in the State of New York advising them of the need for support and of the benefits which physicians derive by joining MSSNY and the American Medical Association; and be it further

Resolved, That membership in the County Medical Societies and MSSNY include unified membership in the AMA.

Resolution 80-51, Introduction of Resolutions

Introduced by Joseph F. Shanaphy, M.D., as an Individual

Whereas, Article III, Section 3, paragraph 4 of the Bylaws of the Medical Society of the State of New York provides that resolutions of the House of Delegates may only be submitted by members of the House of Delegates as individuals, or as delegates representing component county medical societies, district branches and scientific sections, or by component county medical societies, district branches and scientific sections; and

Whereas, The current Bylaws of the Medical Society of the State of New York does not provide any manner in which a delegate representing the student membership or a delegate representing a medical school may submit a resolution other than as an individual; and

Whereas, This situation has arisen solely through an oversight, and there is no good reason why a student delegate should not be permitted to submit a resolution as a representative of the student membership or why a representative from a medical school may not introduce a resolution as a representative of his medical school, or why a resolution may not be submitted in the name of the student membership; therefore be it

Resolved, That Article III, Section 3, paragraph 4 of the Bylaws be amended by adding the words "the student membership and medical schools" following the words "scientific sections" in line 4 and by adding the words "the student membership" following the words "scientific sections" in line 6. Article III, Section 3, paragraph 4 of the Bylaws would then read as follows:

"Resolutions may be submitted to the House of Delegates only by members of the House of Delegates as individuals, or as delegates representing component county medical societies, district branches, scientific sections, the student membership and medical schools, or by component county medical societies, district branches, scientific sections and the student membership."

⟹. . . *The House voted to* **ACCEPT** *the report of the reference committee for information . . .*

Annual Meeting of the Medical Society of the State of New York

. . . The Speaker adjourned the House of Delegates on Thursday, October 2, 1980, and President Denton called the annual meeting of the Medical Society of the State of New York to order . . .

. . . President Denton introduced President-Elect Ralph M. Schwartz who addressed the House (See Addresses to the House, page 458) . . .

. . . President Denton adjourned the annual meeting . . .

ELECTIONS

Tellers

Tellers were the following:
William C. Stein, Niagara, *Chairman*
Thomas J. Doyle, Queens
Bentley D. Merrim, Kings
John R. Scott, D.O., Tioga

Nominations

. . . Speaker Shanaphy introduced George T. C. Way, M.D., *Chairman*, who presented the report of the Nominating Committee.

President
Ralph M. Schwartz, Kings
President-Elect
Milton Rosenberg, Suffolk
Vice-President
Richard D. Eberle, Onondaga
Secretary
Victor J. Tofany, Monroe
Assistant Secretary
Allison B. Landolt, Westchester
Treasurer
Warren A. Lapp, Kings
Assistant Treasurer
John A. Finkbeiner, New York
Speaker
Joseph F. Shanaphy, Richmond
Vice-Speaker
John L. Clowe, Schenectady

Trustees (*one for five years*)
Carl Goldmark, Jr., New York

Councilors (*four for three years*)
John H. Carter, Albany
Morton M. Kurtz, Queens
Robert A. Mayers, Westchester
Stanley A. Steckler, Suffolk

Delegates to the AMA
Charles N. Aswad, Broome
Edgar P. Berry, New York
John L. Clowe, Schenectady
Richard D. Eberle, Onondaga
Carl Goldmark, Jr., New York
Joseph J. Kaufman, Wayne
Dattatraya G. Lanjewar, The Bronx
Robert A. Mayers, Westchester
Richard N. Pierson, Jr., New York
Milton Rosenberg, Suffolk
Ralph M. Schwartz, Kings
Joseph F. Shanaphy, Richmond
William C. Stein, Niagara
George T. C. Way, Dutchess

. . . The nominees for president-elect, vice-president, secretary, assistant secretary, treasurer, assistant treasurer, speaker, vice-speaker, councilors (four for three years), and trustees (one for five years) were unopposed and were elected by a single ballot, cast by the secretary.

Balloting

. . . Assistant Secretary Landolt called the roll of members of the House who had registered to vote as follows:

OFFICERS, COUNCILORS, TRUSTEES

G. Rehmi Denton
Ralph M. Schwartz
Milton Rosenberg
Victor J. Tofany
Allison B. Landolt
Warren A. Lapp
John A. Finkbeiner
Joseph F. Shanaphy
Richard D. Eberle
Morton M. Kurtz
Robert A. Mayers
Stanley A. Steckler
Edgar P. Berry
Joseph R. Fontanetta
George Lim
Charles N. Aswad
Kenneth H. Eckhert
Sears E. Edwards
Daniel F. O'Keeffe
Lynn R. Callin
David Kershner
Paul M. DeLuca
George L. Collins, Jr.
Arthur H. Diedrick
Ralph S. Emerson
Bernard J. Pisani

PAST-PRESIDENTS

Henry I. Fineberg
Norman S. Moore
Walter Scott Walls
Edward Siegel
Carl Goldmark, Jr.
George T. C. Way

PAST PRESIDENT OF AMA

Gerald D. Dorman

COMMISSIONER, NEW YORK STATE DEPARTMENT OF HEALTH

DISTRICT DELEGATES (9)

Duane M. Cady*
James M. Flanagan
Thomas W. Greenlees
Richard A. Hughes
Vincent I. Maddi
Paul W. Sum
Leonard Weitzman

SECTION DELEGATES (27)

Harold E. Berson*
Thomas J. Doyle
Max N. Howard
Russell C. Johnson
Norman B. Kanof
Robert M. Kohn
Harry Leibowitz
Theodore C. Max
James R. Nunn
Frank J. Piper
Lawrence Ravich*
Laurence George Roth
Charles R. Salamone
Edward C. Sinnott
John D. States
Howard G. Thistle

DELEGATES FROM COMPONENT COUNTY SOCIETIES

Albany (4)
John W. Abbuhl
William O'Dwyer
Anthony P. Tartaglia
Nicholas P. Teresi

Allegany (1)
Muhammad Akmal Khan

Bronx (12)
John P. Albanese
Marcos A. Charles
William G. Chorba*
Dattatraya G. Lanjewar
Charles Laverdi
Usha D. Mukhtyar*
Shashikant R. Patel
Aftab A. Siddiqui
Tullio F. Tartaglia*
William Winner*

Broome (4)
John K. Garan*
George F. Gitlitz
John A. Kalb
John F. Spring

Cattaraugus (1)
William C. MacFarland

Cayuga (1)
Richard J. Freeman

Chautauqua (2)
Bert W. Rappole
Charles R. Sinatra

Chemung (2)
Gerald P. Schneider*
Edward F. Steele

Chenango (1)
Thomas M. Flanagan

Clinton (2)
John B. Southwick
Nicholas W. VanLeeuwen

Columbia (1)

Cortland (1)
Nicholas J. Gabriel

Delaware (1)
Glen Joshpe

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* See summary for substitution for delegates

- *Dutchess* (3)
  - Stephen R. Chernay
  - Eleanor C. Kane
  - Seymour R. Stall
- *Erie* (9)
  - James H. Cosgriff, Jr.
  - Anthony J. Federico
  - George W. Fugitt
  - Edmond J. Gicewicz
  - Donald W. Hall*
  - Joseph A. Prezio
- *Essex* (1)
- *Franklin* (1)
  - Alfred A. Hartmann, Sr.
- *Fulton* (1)
- *Genesee* (1)
  - Alfred L. George
- *Greene* (1)
- *Herkimer* (1)
  - Krishna K. Vadlamudi
- *Jefferson* (2)
  - Frederic A. Stone
- *Kings* (22)
  - Grace A. Altenau
  - Lawrence Ames
  - Joseph R. Brennan
  - Matthew Brody
  - Vernal G. Cave
  - Vashti R. C. Curlin*
  - Vincent J. Geraci
  - Robert E. Gordon
  - Milton M. Greenberg*
  - Hyman A. Hauptman*
  - Irving G. Kroop
  - David R. Levine*
  - A. W. Martin Marino, Jr.
  - Martin Markowitz
  - Stephen M. McCoy*
  - Bentley D. Merrim
  - Benjamin Sherman*
  - Leo J. Swirsky
  - M. Theodore Tanenhaus
- *Lewis* (1)
- *Livingston* (1)
  - John W. Stoll
- *Madison* (1)
  - Theodore J. Prowda
- *Monroe* (7)
  - Ronald C. Bruce
  - Charles C. Heck
  - Joseph J. Kaufman*
  - William A. Kern, Jr.
  - Joyce M. McChesney
  - David Sewall Miller, Jr.
- *Montgomery* (1)
- *Nassau* (12)
  - Harry F. Abe
  - Arnold M. Behrer, Jr.
  - Samuel M. Gelfand
  - Morton Goldfarb
  - Waldemar F. Hermann
  - Paul C. Lehmuller*
  - Sidney Mishkin
  - Felix A. Monaco
  - John A. Ostuni*
  - Patricia G. Squillace
  - Walter A. Trenkle
  - Jerome Zwanger*
- *New York* (23)
  - Melvin H. Becker
  - David M. Benford
  - Irwin J. Cohen
  - Hugh C Davidson, Jr
  - Elizabeth A. Goessel
  - Michael H. Grieco*
  - Robert G. Hicks*
  - George Hyams
  - Virginia Kanick*
  - Charles S. LaMonte*
  - Vance Lauderdale, Jr.
  - Klaus Mayer*
  - Aaron G Meislin
  - Richard B Nolan
  - Donna O'Hare*
  - Andrew H. Patterson
  - Richard N. Pierson, Jr
  - William B. Rawls
  - Colter Rule
  - Miriam Seborer*
  - Clifford L. Spingarn
  - Roger W. Steinhardt
  - Meyer Texon
- *Niagara* (3)
  - Edward A. Dunlap, Jr.
  - James J. Kropelin
  - William C. Stein, Jr.
- *Oneida* (3)
  - Clarke T. Case
  - Robert M. George
  - Robert B. Wallace
- *Onondaga* (5)
  - Robert B. Bryant
  - Richard A. Konys
  - Carl E. Marlow
  - John T. Prior
  - George P. Tilley
- *Ontario* (2)
  - Verne M. Marshall
  - Thomas A. McCormick
- *Orange* (4)
  - Albert A. Mazzeo
  - Seymour J. Wiener
  - W. Brewster Wolfe
- *Orleans* (1)
  - Antoine A. Nassar
- *Oswego* (1)
  - Zia Segatol-Islami*
- *Otsego* (1)
  - Rodman D. Carter
- *Putnam* (1)
- *Queens* (16)
  - Alexander M. De la Garza
  - Robert M. Farrell
  - Fred N. Flatau
  - Irving G. Frohman
  - Leo Arthur Green
  - Victor Guarneri*
  - Edith Gutmann
  - Joseph Klements
  - Nicetas H. Kuo
  - Philip Marshall*
  - Hilda Ratner
  - Felix R. Rosenhain
  - Ralph E. Schlossman
  - Lester R. Tuchman
  - Ezra A. Wolff
- *Rensselaer* (2)
  - Thomas D. Pemrick
  - William A. Whyland
- *Richmond* (3)
  - B. Basil Hyman*
  - Gerald J. Lustig*
  - William A. Schwarz
- *Rockland* (4)
- *St. Lawrence* (1)
  - Maurice J. Elder
- *Saratoga* (1)
- *Schenectady* (3)
  - John L. Clowe
  - John M. Spring*
- *Schoharie* (1)
  - Frederick J. Michel
- *Schuyler* (1)
- *Seneca* (1)
  - Paul C. Jenks
- *Steuben* (2)
  - Jack D. O'Neil*
- *Suffolk* (10)
  - William H. Bloom
  - Stephen I. Braitman
  - Melvyn Bruckstein*
  - Frank R. Collier
  - John G. Egner
  - Robert E. Fear*
  - James A. Holleran*
  - Phillip I. Levitan*
  - Nathaniel B. Messinger
  - Melvin Shuter
- *Sullivan* (1)
  - Bernard F. Kalina
- *Tioga* (1)
  - John R. Scott
- *Tompkins* (2)
  - E. James Fogel, Jr.*
  - Robert S. Perry
- *Ulster* (2)
  - Norman N. Burg
  - John A. Cooke, Jr.
- *Warren* (1)
  - Robert A. Francomano
- *Washington* (1)
- *Wayne* (1)
  - Norbert Menuhin
- *Westchester* (9)
  - William P. Clark
  - Edwin I. Cleveland
  - Armond V. Mascia
  - Harry H. Moorhead
  - Richard L. Petrillo
  - John A. Ramsdell
  - Thomas Dignan Rizzo
  - Michael Sierp
- *Wyoming* (1)
- *Yates* (1)
  - Sheppard Arluck

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* See summary for substitution for delegates

MEDICAL SCHOOL DELEGATES (12)

Alfred A. Angrist
Robert H. Carrier*
Joseph Theobald Doyle
David A. Dreiling
Jose M. Ferrer, Jr.
Stanford Wessler
Edward A. Wolfson
Tamarath K. Yolles

MEDICAL STUDENT DELEGATES (3)

Jeffrey H. Dresner
Sharon A. Stotsky*
Chak P. Tom

SUMMARY OF SUBSTITUTION FOR DELEGATES

DISTRICT — Duane M. Cady
Served for George H. Hanlon

SECTION — Harold E. Berson
Served for Robert J. Campbell, III
Lawrence Ravich
Served for Abraham T. K. Cockett

COUNTIES

Bronx — William G. Chorba
Served for Leonard L. Heimoff
Usha D. Mukhtyar
Served for Manuel F. Kirschtein
Tullio F. Tartaglia
Served for Bienvenida S. Cruz
William Winner
Served for Luigi J. Mazzella

Broome — John K. Garan
Served for Lloyd C. Peters

Chemung — Gerald P. Schneider
Served for Robert E. Good

Erie — Donald W. Hall
Served for James R. Nunn

Kings — Vashti R. C. Curlin
Served 10/1 & 10/2 for Yehudi M. Felman
Milton M. Greenberg
Replaced Joseph R. Fontanetta
Hyman A. Hauptman
Served for Duncan W. Clark
David R. Levine
Served for Stanley I. Fishman
Stephen M. McCoy
Voted for Norman S. Blackman
— Benjamin Sherman
Voted for George Liberman

Monroe — Joseph J. Kaufman
Served 10/1 & 10/2 for Robert H. Carrier

Nassau — Paul C. Lehmuller
Served for Jack W. McElwain
John A. Ostuni
Served for Lawrence Ravich
Jerome Zwanger
Voted for Ray S. Crampton

New York — Michael H. Grieco
Voted for George W. Melcher, Jr.
Robert G. Hicks
Replaced Edgar P. Berry
Virginia Kanick
Voted for William F. Mitty, Jr.
Charles S. LaMonte
Served for Albert M. Schwartz
Klaus Mayer
Served for Edgar P. Fleischmann
Donna O'Hare
Voted for Shepard G. Aronson
Miriam Seborer
Replaced Gerald D. Dorman 10/1 & 10/2

Oswego — Zia Segatol-Islami
Served 10/1 & 10/2 for Milton W. Kogan

Queens — Victor Guarneri
Served for Alfred A. Angrist
Philip Marshall
Served for William M. Hewlett

Richmond — B. Basil Hyman
Replaced Joseph F. Shanaphy
Gerald J. Lustig
Served for Robert J. O'Connor

Schenectady — John M. Spring
Served for Robert J. Cassidy

Steuben — Jack D. O'Neil
Served for Wayne C. Templer

Suffolk — Melvyn Bruckstein
Served for Daniel Friedman
Robert E. Fear
Served for James A. Holleran
James A. Holleran
Voted 10/2 for Melville G. Rosen
Phillip I. Levitan
Served for Stanley M. Vickers

Tompkins — E. James Fogel, Jr.
Served for Stephen W. Blatchly

MEDICAL SCHOOLS — Robert H. Carrier
Served 10/1 & 10/2 for R. Gordon Douglas, Jr.

MEDICAL STUDENTS — Sharon A. Stotsky
Voted for Charles J. Cattano

Report of Tellers

. . . Speaker Shanaphy recognized William C. Stein, M.D., *Chairman,* who presented the following report:

Delegates to the American Medical Association

The following seven were declared elected delegates to the American Medical Association, their two year terms of office to start on January 1, 1981.

MILTON ROSENBERG	236
JOHN L. CLOWE	235
RALPH M. SCHWARTZ	234
JOSEPH J. KAUFMAN	219
EDGAR P. BERRY	216
CARL GOLDMARK, JR.	215
RICHARD D. EBERLE	98

The following seven were declared alternate delegates to the American Medical Association, their two year terms of office to start January 1, 1981.

JOSEPH F. SHANAPHY	60
WILLIAM C. STEIN	44
RICHARD N. PIERSON, JR.	43
DATTATRAYA G. LANJEWAR	38
GEORGE T. C. WAY	27
ROBERT A. MAYERS	23
CHARLES N. ASWAD	14

* See summary for substitution for delegates

Closing Proceedings

Thanks to Committees and Staff

. . . Speaker Shanaphy thanked the convention committees and the members of the staff who worked so hard at the convention, as follows:

Committees of the House of Delegates: House Committee on Bylaws, Daniel F. O'Keeffe M.D., Chairman. Reference Committees — Credentials, William A. Schwarz, M.D., Chairman; Reports of Officers, John T. Prior, M.D., Chairman; Bylaws, Daniel F. O'Keeffe, M.D., Chairman; Scientific Activities, Publications, & Miscellaneous, John L. Clowe, M.D., Chairman; Public Health & Education, Nathaniel B. Messinger, M.D., Chairman; Medical Services, Tamarath K. Yolles, M.D., Chairman; Governmental Affairs and Legal Matters, Seymour R. Stall, M.D., Chairman; Tellers, William C. Stein, M.D., Chairman; Sergeant at Arms, Nicholas P. Teresi, M.D., Chairman; and Dinner Committee, Arthur H. Diedrick, M.D., Chairman.

MSSNY Staff: Henry I. Fineberg, M.D., Executive Vice-President; Edward Siegel, M.D., Deputy Executive Vice-President; Philip G. Keating, Convention Manager and Director, Division of Finance; J. Richard Burns, J.D., General Counsel; George W. Forrest, Jr., Dinner Dance Coordinator and Director, Division of Management Services; Alfred A. Angrist, M.D., Editor, New York State Journal of Medicine, and Director, Division of Scientific Publications; Guy D. Beaumont, Director, Division of Communications; Bernard M. Jackson, Director, Division of Insurance and Membership Benefits; George J. Lawrence, Jr., M.D., Director, Division of Scientific Activities; Robert J. O'Connor, M.D., Director, Division of Medical Services; Martin J. Tracey, J.D., Director, Division of Governmental Affairs; William D. Brainin, Associate Director, Division of Medical Services; Robert Miller, Meeting Services Manager; Donald Moy, Staff Attorney; Deborah Siegel, Research and Development; and Paul Tagliaferro, J.D., Assistant to the Director of the Division of Governmental Affairs.

House of Delegates: Irma A. Erickson, Executive Associate; Imelda Morrissey, Coordinator; Elizabeth Bernardi, Recorder; Patricia Mouquin, Assistant Coordinator. Reference Committee Secretaries — Kate Bertrand, Deborah Bostrom, Vita Chilleme, Elizabeth Daepp, Joan Grimm, Pauline Loscalzo, Jeanette Palucci, Alice Wheeler, Gladys Wunsch, Dorothy Zoltowski; Frances Casey, Workroom Aide. Registration — Mary Singer, Coordinator; Alice Cowley, Rose DiMatteo, Lila Gerber, Katherine Heschl, Barbara Lacey, and Joan Rosenberg. Information Desk — Sandy Scimeca, Coordinator; Angela Genavola and Cindy Luberto. Production — Charles Struzinski, Coordinator; John Brady, Jacques Charlier, Fred McIlroy, and Theodore White. Purchasing — Florence Bambek, Coordinator.

Press Room: Gerald Sullivan, News Room Supervisor; James McCloskey, Editor, News of New York; Eunice Skelly, Staff, Auxiliary; News Room Staff: Harry Dexter, William Egan, Mark Kafka, John Mucci, and Katherine Rapp.

MSSNY Exhibit: Jay Garnock, Computer Services; Darlene DeMatteo, Sylvia Frank, and Ivan Najman.

Staff of the Grand Hyatt New York: Paul M. Gottwald, Sales Manager; Brian M. Mulholland, Director of Convention Services; Lester Paley, Director of Catering; and Richard Webster, Public Space Manager.

Thanks to the Speaker and Vice-Speaker

. . . The House gave a rising vote of thanks to Speaker Shanaphy and Vice-Speaker Eberle for their just and excellent handling of the meeting . . .

Adjournment

. . . Speaker Shanaphy adjourned the House at 11:00 a.m. on Thursday, October 2, 1980, sine die . . .

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OFFICIAL POSITION PAPERS

of the

MEDICAL SOCIETY OF THE STATE OF NEW YORK

In accordance with the directive of the House of Delegates, the official positions of the Medical Society of the State of New York are included in this publication in conjunction with the proceedings of the House of Delegates. This will make these official positions available to every member of the Society.

All positions taken have been approved by either the Council, acting on behalf of the House of Delegates, or the House itself. These positions may vary from time to time and, therefore, a stated position may no longer be valid. If in doubt, a call to headquarters at Lake Success is suggested for current stands and new developments. Since the Principles of Professional Conduct incorporate many of the ethical standards promulgated by our Society, we have included the latest revision of the Principles on pages 709 – 718.

Edward Siegel, M.D.
Executive Vice-President

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ABORTION

The Medical Society of the State of New York takes no official position involving the pros and cons of abortion for moral, ethical, or philosophical reasons.

It does take the position that when and if an abortion is performed, that it be done under the following guidelines:

MSSNY GUIDELINES

1. An abortional act should be performed only in a hospital having an obstetrical, gynecological, or surgical service and holding a currently valid operating certificate from the New York State Department of Health or the Health Services Administration of the City of New York or in a suitably equipped and staffed facility administered by such hospital or in a suitably staffed and equipped facility having a hospital affiliation agreement acceptable to the State Hospital Council.
2. An abortional act is an obstetrical procedure and should be performed only by a physician with a currently valid license to practice medicine and surgery in the State of New York, and in accordance with the medical staff rules of the hospital or facility where the abortional act is performed.
3. Prior to the performance of an abortional act, positive evidence of pregnancy by test result, history, and physical examination, or other reliable means, should be recorded on the patient's chart, with an estimate of the duration of the pregnancy.
4. No physician or other person should be required to perform or participate in a medical or surgical procedure which may result in the termination of pregnancy. It is recommended that a patient be advised to consult another physician or physicians when the first physician's refusal to participate in an abortional act is based on a matter of medical judgment or conscience.
5. An abortional act should be performed only in a room suitably staffed and equipped for the type of procedure or procedures being performed and according to the rules and regulations of the hospital or facility in which the abortional act is being performed and in conformity with the relevant sections of the New York State Hospital Code.
6. Blood and blood derivatives should be available whenever an abortional act is performed; and an appropriately equipped and staffed operating room should be immediately available.
7. An abortional act may be performed on an outpatient basis in the outpatient department of a currently licensed hospital or facility only up to and including the twelfth week of pregnancy. Therefore it should be performed on an inpatient basis only.
8. Preoperative evaluation should include the usual routine procedures necessary for the protection of the patient; and the results of such procedures should be recorded on the patient's chart.
9. Prior to the initiation of an abortional act, with or without analgesia or anesthesia, there should also be on the patient's chart a consent form duly signed, according to the requirements of the hospital or the facility.
10. Anesthesia should be administered only by qualified personnel, in accordance with the provisions of the State Hospital Code.
11. The methods by which an abortional act is performed should be those best suited under the circumstances, taking into consideration the experience of the operator, the duration of the pregnancy, and the female's mental and/or physical condition.
12. In the case of an abortional act done after the twelfth week of gestation, it is recommended that consultation be obtained to protect the patient's health and welfare, according to the applicable regulations of the hospital or facility and as outlined in the Hospital Code.
13. Physicians must complete and sign all necessary certificates required under the law for the registration of the products of the abortional act (stillborn or liveborn, etc.).
14. Each hospital, hospital-administered facility, or facility holding a hospital affiliation agreement acceptable to the State Hospital Council should develop its own rules and regulations to cover the performance of abortional acts on its premises — not inconsistent with the above guidelines.
15. Medical fees and hospital charges will vary from area to area, but should conform to the usual and customary levels for those procedures involved in completing the abortional act.
16. Abortional acts performed by a female upon herself are *NOT* condoned.

CAUTION: THE MEDICAL SOCIETY OF THE STATE OF NEW YORK WOULD LIKE TO CAUTION ALL PHYSICIANS THAT AN ABORTION PERFORMED AFTER THE TWELFTH WEEK OF GESTATION IS FRAUGHT WITH TREMENDOUS DANGER.

COUNCIL 5/21/70

Addendum to Abortion Guidelines — passed by the Council Jan. 24, 1974

It is the recommendation of the Committee on Maternal and Child Welfare of MSSNY and the special Ad Hoc Committee on Guidelines for Abortion that induced termination of pregnancy after the 12th week of pregnancy be performed only in a hospital and only on an inpatient basis. The committee also recommended that following inducement of abortion all patients must remain in the hospital until the abortion process is totally completed.

For medical liability insurance purposes, abortion is considered major surgery.

The Medical Society of the State of New York takes no official position involving the pros and cons of abortion for moral, ethical, or philosophical reasons. It does take the position that when and if an abortion is performed, that it be done under the guidelines outlined in the MSSNY position paper on abortions.

Executive Committee 5/21/80

ACUPUNCTURE

The Medical Society of the State of New York regards acupuncture involving the human body as an experimental procedure which falls within the practice of medicine and, hence, should be performed only by or under the direct supervision of a physician licensed in this State, and in an institution appropriate for human research.

MSSNY recognizes the need for, and desires to encourage further research in the techniques, mechanisms of action, and uses of acupuncture. However, because acupuncture is considered at this time strictly as an investigational procedure, it should be performed only in medical centers and teaching hospitals having committees on human research, which will provide the necessary peer review of protocols and appropriate monitoring of such studies.

Council 12/16/76

ADVERTISING AND SOLICITATION

The Medical Society of the State of New York does not prohibit the use of advertising when used in making certain information known to the public, which is entitled to know the names of physicians, the types of their practice, the location of their office, their office hours, and other useful information; i.e., biographical data, that will enable people to make a more informed choice of a physician.

The physician may furnish this information through the accepted local media for advertising; i.e., office signs, professional cards, dignified announcements, telephone directory listings, and reputable directories, which are open to all physicians on like conditions.

Solicitation of patients, directly or indirectly, by a physician, by groups of physicians, clinics, institutions, or organizations is unethical. Solicitation includes, (1) the not always obvious devices of furnishing or inspiring newspaper, magazine or television comment concerning cases in which the physician, group, or institution has been, or is, concerned; (2) the use of statements or claims intended or likely to create inflated or unjustified expectations of favorable results; (3) the use of statements or claims that are self-laudatory and imply that the physician's skills are superior to other physicians engaged in his field or specialty of practice; or (4) the use of statements or claims that certain incorrect or incomplete facts or representations or implications that are likely to cause the average person to misunderstand or be deceived.

Council 9/15/77

ALCOHOLISM

The International Classification of Diseases includes alcoholism in the section described as mental disorders. The Medical Society of the State of New York believes that alcoholism should be listed as both a mental disorder and a medical disorder, for these reasons:

1. Clinical and investigative work of the past three decades has led many workers in the field of alcoholism to the conclusion that it may well be a medical condition with concomitant emotional and psychiatric components.
2. Listing of the disease as a purely mental disorder adds an unnecessary and undesired stigma to an already overly stigmatized illness.
3. Adequate medical education as well as research concerning alcoholism might be significantly broadened and advanced by its inclusion within a "medical" classification of illness.
4. Such reclassification might also result in significant improvement in the accuracy with which alcoholism is reported in documents dealing with public health.
5. As long as alcoholism remains classified as a psychiatric disease, insurance payments for health care are limited to amounts ordinarily offered for psychiatric conditions. These amounts are often less than adequate for medical treatment.

Based on a Resolution Passed by
the Council on 4/28/77

ALCOHOLISM (HEALTH INSURANCE COVERAGE FOR)

MSSNY on January 24, 1974, approved recommendations that to receive the endorsement of MSSNY for its members, any medical insurance plan shall cover not only inhospital treatment when acute detoxification is necessary, but also inpatient treatment in good quality rehabilitation settings. MSSNY also suggests similar provisions be included in any group medical insurance offered to MSSNY members by a county or national medical society with which MSSNY is affiliated.

Council 12/16/76

APPEALS FROM RECOMMENDATIONS OF THE PROFESSIONAL MEDICAL LIABILITY INSURANCE AND DEFENSE BOARD

1. All recommendations of the Professional Medical Liability Insurance and Defense Board may be appealed.
2. Parties shall be given at least 30 days notice of the hearing before the Ad Hoc Committee on the Council.
3. Both the Defense Board and physician shall be accorded the opportunity to make written submission to the Ad Hoc Committee in advance of the hearing. Counsel may prepare the submission on behalf of the physician.
4. The parties shall be interviewed by the Ad Hoc Committee of the Council separately. After reviewing the information previously made available, the Ad Hoc Committee shall interview the member of the Defense Board, preferably in the specialty under discussion, and

the Executive Secretary (or his representative.) The Ad Hoc Committee should have available to it the same information that was available to the Board or the subcommittee, if any, of the Board, which interviewed the physician seeking the appeal. Afterwards, the Ad Hoc Committee of the Council shall interview the physician privately.

5. If the physician has Counsel, Counsel shall not be permitted to be present during the interview.
6. At the conclusion of the hearing, the physician will be asked if he will need additional time to submit any material to the Ad Hoc Committee of the Council. If the physician so desires, the Ad Hoc Committee may allow the physician a reasonable time to make such submissions.
7. After all materials have been submitted, the Ad Hoc Committee will make a decision and report to the Council.

Council 4/26/79
Amended by Council 9/4/80

BANK CARD (CREDIT CARD) PLAN IN MEDICAL PRACTICE

The Medical Society of the State of New York approved in 1973 that a physician may participate ethically in a bank card plan upon approval of the plan by the county medical society. This method of payment of medical fees is to be on a strictly voluntary basis on both the part of the physician and on the part of the patient.

The American Medical Association also has declared that it is not unethical for physicians to accept the use of a bank card plan in payment of fees, provided that the bank card plan meets certain guidelines established by the Judicial Council of the American Medical Association.

The following principles are to be used by the county medical society for guidance in approving a bank card plan:

1. The county medical society should be satisfied as to the financial and professional integrity of the bank card plan.
2. Bank card plans should make their plans open to all physicians on the same terms, and the plans should not exploit or capitalize on physician's participation in the plans.
3. The bank card plan should be notified that the listing of physicians in directories of participating members is contrary to the ethics of the medical profession.
4. A physician may not, because of his participation, increase his fees for medical services rendered to the patient.
5. The physician may not use the plan to solicit patients, and should not encourage patients to use the plan.
6. Plaques, signs or other devices indicating participation in the plan should be kept to a discrete and dignified minimum in the office, and should not be visible outside the physician's office.

The Medical Society of the State of New York will not encourage its members to utilize the bank card plan in the payment of medical fees.

The use of a bank card in connection with the payment of larger fees — which might normally be paid to the physician in installments — is not to be encouraged. All members of the Society are expected to continue the traditional practice of permitting patients of limited means to pay relatively large fees in installments without interest or carrying charges. Out of respect for the dignity and traditions of the medical profession, the physician may not relieve himself of his obligations "to render service to humanity, reward, or financial gain being a subordinate consideration."

House of Delegates, 1973

BIRTH CONTROL AND FAMILY PLANNING

MSSNY approved support for legislation which would liberalize the sale of contraceptives in New York State by the removing of age restrictions and the limitation of sales to pharmacies.

Council 12/2/72

MSSNY believes information and services on family planning should be as available to persons receiving public welfare assistance as to other members of the community, and that the State Department of Social Services should allow for reimbursement for costs of family planning services and supplies to welfare clients. However, no welfare client or worker, the Society feels, should be required to accept or make a referral for family planning services if it is against his religious principles.

Council 1/21/65

CANCER OF THYROID

The Medical Society of the State of New York in October, 1975, considered the problems surrounding possible side effects resulting from x-ray treatment given to children between the late 1930s and early 1960s for head and neck abnormalities, and advised as follows:

At the time, x-ray was deemed a medically safe and effective procedure for shrinking tonsils, adenoids, and the thymus gland as well as for treatment of other benign conditions. Although this type of treatment has been generally discontinued for at least 15 years, recent evidence suggests that persons who received it are at a higher risk of developing benign or malignant thyroid growths.

Compared to other types of cancer, thyroid cancer is uncommon. The type of cancer associated with x-ray treatment grows slowly and has a high cure rate.

The MSSNY urges persons who had, or suspect that they had, x-ray treatment of the head or neck during childhood or adolescence to contact their physician for a checkup.

Persons who do not have a personal physician can seek referral to a physician by writing to their local medical society or their hospital for referral to a physician.

Council 12/16/76

CERTIFICATE OF NEED

The MSSNY has adopted the policy that no mandatory Certificate of Need be required relative to the purchase of any equipment in a private physician's office setting.

House of Delegates, 1978
Reaffirmed by Council 6/26/80

CHILD ABUSE

The Medical Society of the State of New York, to combat the increasing abuse of children, has approached this problem and has notified all physicians in the State of their moral, medical, and legal responsibility to report all suspected cases of child abuse.

CHIROPRACTIC

The Medical Society of the State of New York has consistently held to the position that chiropractic is an unscientific cult; and has sought to educate the public to that effect.

The MSSNY has continued to stress the fact that chiropractic is not based on scientific principles. We regard it as a cult because it follows the hypothesis of its founder — that disease results from pressure on nerves due to minor misalignments of the spinal column. The chiropractors claim that most illnesses can be cured by adjusting or manipulating certain areas of the spinal column. Of course, such a theory runs counter to the established facts of medical science.

Chiropractors are not educated or equipped, either by background or training to diagnose human illness. This inability, coupled with their pseudo-scientific method of treatment, and their vociferous stand against life-saving vaccines and the well-recognized advances of the medical profession in the control, diagnosis, treatment, and prevention of disease requires, or perhaps demands, that no recognition be given to them.

Physicians and others interested in public health have a duty to fight this unscientific cult with great vigor.

Council 12/16/76

The Medical Society of the State of New York wishes to reaffirm its belief that a physician should at all times practice a method of treatment which is founded on a scientific basis and which is in the best interest of the patient.

The Medical Society of the State of New York knows of no scientific evidence to condone spinal manipulation as appropriate treatment for the majority of human diseases. The Medical Society of the State of New York will continue to warn the public of the dangers to health in relying on the theory that disease is caused by misalignment of the spine which can be cured by manual manipulation and adjustment.

House of Delegates, 1979

CONTINUING MEDICAL EDUCATION

For many years MSSNY has been developing a Statewide program which will help physicians throughout the State fulfill their continuing medical education needs with a minimum loss of medical practice time. At the November, 1975, meeting of the MSSNY House of Delegates, a resolution was passed to make continuing medical education mandatory for membership.

Through the leadership of MSSNY, in 1976 the New York State Council on Continuing Medical Education was organized with representation from MSSNY, the Associated Medical Schools of New York, and the Association of Medical Specialty Societies of New York. The New York State Departments of Health and Education participate in advisory capacities.

The Council on Continuing Medical Education will foster a Statewide plan to improve the quality of medical care which will utilize relevant educational means. It will determine the medical education needs of physicians, encourage the development of related educational programs, maintain a program registry, and establish procedures for documenting physician participation.

MSSNY, cooperating with the AMA Physician's Recognition Award program, has been making site visits to institutions throughout the State which elect to participate in the program.

Council 12/16/76

An active member, as defined in Article II, Section 1, of the Bylaws of the Medical Society of the State of New York, who is found not to be in good standing as of March 1, 1981, or March 1 of any subsequent year, for failing to comply with paragraph 1 of this Section shall receive reasonable notice that he must fulfill continuing medical education requirements by the last day of December of the year in which he is found not to be in good standing. An active member who does not fulfill continuing medical education requirements by the last day of December of the year in which he is found not to be in good standing shall automatically cease to be a member of the component county medical society and the State Society, unless, in the view of the Council, specific mitigating circumstances exist that the physician could not complete the CME requirements.

Based on House of Delegates Resolution 79-43

CONTINUING MEDICAL EDUCATION FOR RETIRED AND SEMI-RETIRED PHYSICIANS

Retired physicians who have no connection with medical practice, medical education, or medical administration, and who do not earn a living from any of these activities need not fulfill the membership requirement for continuing medical education of the Medical Society of the State of New York.

Semi-retired physicians, if they in any way treat patients or teach or administer to other physicians who treat patients, must fulfill the continuing medical education requirement in order to retain membership in MSSNY.

Council 4/28/77

If for any reason, such as sickness, disability, or hardship, a physician feels that he should not be obliged to fulfill the CME requirement, he should present his case to his county medical society. If the county medical society recommends that he be relieved of his CME obligation, the recommendation will be accepted by MSSNY, for the period of time designated by the county society.

Council 9/28/78

COST CONTAINMENT

The Medical Society of the State of New York believes in addressing the problem of cost containment through voluntary effort in our offices and hospitals.

"Cost Containment" of medical care is, to use the current jargon, the 'in' topic. Unquestionably this subject deserves the serious attention of all citizens, particularly the medical profession, to determine that available funds are expended most effectively. The MSSNY is troubled by what is left 'out' of the ongoing publicity, namely that the quality of medical care not be compromised and accessibility to such care not be restricted by proposals that consider solely costs. It is acknowledged that the quality of care in the U.S. is the highest in the world and, for the great majority of our people, so is accessibility to that care. This is not to deny that there is room for improvement, but in endeavoring to make available to that small percentage of the population which at present does not have access to the best medical care, it is important not to destroy the fabric of the existing structure which has functioned so effectively and been characterized by marked advances in medical knowledge, technology, and therapy. It is disturbing to the medical profession to note that almost all the proposals being advanced concentrate on cost with little consideration given to maintaining and enhancing quality and access, ignoring the intent of Congress in enacting P.L. 93-641 that "the achievement of equal access to quality health care at a reasonable cost is a priority of the federal government." Limiting attention to cost alone, is, therefore, contrary to the expressed purpose of the National Health Planning and Resources Development Act (P.L. 93-641).

Some general observations must be considered. Monetary resources will never be unlimited, and decisions as to priorities must be made by an informed citizenry as to the percentage it wants expended on medical care vis-a-vis other national needs. That decision must be arrived at by the public and not by governmental regulatory bureaus. The self-discipline of individuals and the correction of social environmental conditions that are conducive to poor health are the prime factors in "preventive" medicine and must be addressed by public bodies. Proposed measures to cut costs must recognize that the ill patient and his family insist on all available care, including diagnostic procedures. The physician by historical ethics and training is motivated to render to the individual patient all measures that may possibly assist in recovery and health maintenance, with costs a secondary consideration. Rigid bureaucratic restrictions lead to dictating when, how, and where medical care will be provided and the public must be made aware of trends that will ultimately result in circumscribing the individual's freedom of decision and choice, and the overriding of physicians' professional judgements. Mandated cost controls programs are likely to be antithetical to individuals' rights to make unfettered decisions in regard to their medical care.

Legislative bodies continuously broaden existing health care programs and initiate new ones. The merits of these programs are not at issue here, but the contradiction between controlling costs and mandating expensive new programs must be acknowledged. Also recognized must be the expense involved in responding to government imposed regulations, an expenditure in time, personnel, and resources that contributes nothing to the direct care of patients, but consumes a not inconsiderable portion of the health dollar. Much has been said of late about simplifying and decreasing governmental regulatory paper work, but in the health field the converse has been true.

The above caveats recorded, there are feasible measures to be considered, designed to obtain the greatest usefulness of the health dollar. The largest portion of the latter goes to hospital care. In considering hospital cost containment proposals, sight must not be lost that to survive hospitals need to be financially sound, a basic concept that recent New York State mandated controls seem to ignore. It is unrealistic to restrict hospital rate increases on one hand, and leave their expenses a wide open door. Measures to be considered are:

— Facilitating the care of patients from in-hospital to ambulatory management with a realistic payment system provided for the latter.

— Cooperative studies by hospital staffs in suitable geographic areas of shared facilities and services.

— The closing of hospitals or the merging of hospital facilities to be effected only after thorough determination of the local needs. The AMA response to HEW's statement contained in the commentary accompanying revised National Guidelines for Health Planning that the primary goal is "short term opportunities for cost containment" is most pertinent; "while we recognize that health care costs must be considered, we believe that it is improper and inimical to quality medical care to consider only economic issues at the expense of other important factors." It also subverts the intent of Congress as noted above.

— Review and improvement of regulations and procedures to ease the transfer to nursing homes of patients as soon as acute hospital care is no longer needed, but to provide for ready readmission to the hospital should the necessity arise.

— Removal of restrictions to encourage home health care as the preferable alternative to nursing home confinement, including informing physicians of the home health care services available in their community.

— Increasing the awareness of physicians, the decision-makers, of the costs of hospital stays and services by furnishing them, in an appropriate manner, copies of physician-influenced expenses they engender. Similar programs should be instituted for house staffs.

— Conducting seminars on cost control involving medical staff presidents, chiefs of staffs, PSRO representatives, hospital administrators, insurance carriers, and nurse representatives.

— Hospital staff clinical conferences to incorporate in discussions of cases the cost factors influenced by the ordering of diagnostic and therapeutic procedures that may not have been warranted.

— Individual hospitals to constitute multi-disciplinary cost containment committees, with physicians participating where medical care of patients is involved.

— Hospitals to establish patient safety programs through liability control systems, designed to limit or diminish the soaring costs of liability insurance.

— Expanding preadmission evaluation of patients arrangements to decrease length of hospital stay, with costs to be covered by hospital insurance programs.

Measures involving physicians apart from in-hospital patient care:

— Expansion of PSRO activities for review of challenged patterns of practice in the office setting.

— Coinsurance to be part of all health care insurance as the most effective measure to control overutilization demands by the patient, with appropriate provisions for the low income and a top amount for catastrophic illnesses.

— Making available to the patient multiple forms of health care delivery systems (i.e. fee-for-service, prepayment plan, HMOs, etc.) competing on equal terms without subsidization, either overt or concealed, with the success of one or the other determined by the patients' choice. This equality of selection to prevail in employer or union sponsored health plans as well, with the factors of coercion removed.

— Apart from the one-to-one patient-physician relationship, medical organizations to cooperate with groups whose goals are the education of the public in health prevention life styles and "preventive" medicine.

— The institution of corrective measures in the field of medical liability to decrease the expense of "defensive" medical practices and abate the excessive cost of this insurance which ultimately is borne by the public.

— Establishment of criteria for physicians' office surgical suites that would qualify for adequate insurance reimbursement as a less costly alternative to inhospital care or outpatient hospital centers.

— Government financed programs such as Medicaid to fund realistic payment schedules that would encourage participation of the ethical, competent physician and would be less costly than the "Medicaid Mill" alternative.

Proposals other than those listed above will undoubtedly be developed with further exploration of the subject of cost containment. It is recommended that to avoid immoderate disruption in the present system of providing medical care, major innovations be tested first in pilot projects to avoid the costly failures that have characterized hastily conceived governmental projects in the past. There will always be room for modification and improvement with changing times, but such should be effected only after deliberate consideration and in an orderly manner. In a recent survey HEW found that the nation wants changes in the health delivery system to "build on the strength of the existing system" and we urge that course rather than attempt to foist on the public politically glamorous but unsound programs of dubious merit that would reduce medical care to the level of mediocrity. The medical profession, through its various organizations, stands ready to participate in and make available its unique expertise to any and all projects designed to improve health care delivery. It needs only to be requested to do so.

Council 4/27/78

Suggestions for Hospital Cost Awareness Programs

1. Maintenance of High Quality Care — the sine qua non.
   Educational programs.
2. Discussion of economic factors included in at least one case presentation at monthly meetings of Departments; e.g. length of stay, tests ordered, medications prescribed, etc. — necessity, alternatives.
3. Ambulatory Care Facilities
   Adequate facilities, utilization, ease of scheduling.
4. Length of Stay for Routine Cases
   Evaluation of utilization review effectiveness.
   Appropriate arrangements for readmission.
   Duplication of tests on readmission.
5. Pre-admission scheduling of tests (e.g. x-ray) to avoid undue delay and unnecessary hospital stay.
6. Acceptance of Tests Performed Prior to Admission
   Where performed both by hospital or staff physicians.
   X-rays to accompany patient for interpretation by hospital radiologist and entered on hospital chart.
7. Intensive Care Units
   Appropriate utilization.
   Step-down units.
8. Early Discharge Planning
   Involving family members.
9. Home Health Care
   Adequate arrangements with Social Service Department and outside agencies.
   Early planning.
10. Involvement of house staff in program.
11. Coordination with Nursing and other Hospital Departments.
12. Coordination with Hospital Board of Trustees and Administrator.
13. Hospitals should develop a concept of "Swing Beds."
14. Public Relations
    Communication media briefing.
    Community organizations.
15. Establishment of Hospital Professional Efficiency Committees where such do not exist.
16. Establishment of Local Area Inter-relationships between Hospital Committees.
    County Medical Society Involvement.
    Stated meetings.

Council 4/17/80

DEFINITION OF DEATH

Any proposed legislation concerning death must, in its determination of when death may be proclaimed, follow this definition in order to receive the approval of the Medical Society of the State of New York:

> A person shall be dead when in the announced opinion of a duly licensed physician based on prevailing standards of medical practice, such person has experienced an irreversible cessation both of spontaneous respiratory and circulatory functions. If the use of artificial means of support precludes a determination that these functions have ceased, a person shall be dead if in the announced opinion of a duly licensed physician, based on prevailing standards of medical practice, such person has experienced a total and irreversible cessation of brain function.

COUNCIL 4/28/77

REAFFIRMED BY HOUSE OF DELEGATES RESOLUTION 80-6

In addition, the Medical Society of the State of New York adopted the criteria on the legal definition of death as formulated by the Ad Hoc Committee of the Harvard Medical School (Reference JAMA 205: 337–340, 1968)

HOUSE OF DELEGATES, 1978

PRONOUNCEMENT OF DEATH

The position of the MSSNY is that it opposes any legislation which would designate individuals other than physicians to pronounce death.

HOUSE OF DELEGATES, 1979

DISCIPLINE

In our judgment, we cannot either enlarge upon or diminish the rules concerning the subject of discipline outlined in the "Principles of Professional Conduct" of the Medical Society of the State of New York.

COUNCIL 12/16/76

DISCRIMINATION

The Medical Society of the State of New York is unalterably opposed to the denial of membership in component county medical societies and the State Medical Society to any physician practicing or residing in the State of New York, because of race, color, religion, sex, ethnic affiliation, or national origin. It calls upon all component county medical societies and upon all members of the MSSNY, to exert every effort to end every instance in which such equal rights are denied.

The Judicial Council of the MSSNY, pursuant to Section 2 of Article VII of the Bylaws, shall hear appeals from applicants for membership in a component county medical society who have been excluded from membership in such society for any reason, including discrimination.

COUNCIL 12/16/76

DRUGS

The Society's position on various drugs as well as Generic Drugs, Generic Drug Substitution, Identification of Unit Medication by a Uniform National Drug Code Number, is listed individually below:

ANOREXIGENIC DRUGS — (See Amphetamines)

AMPHETAMINES

It is the position of the Medical Society of the State of New York that amphetamines should not be used in the management of weight control problems; however, it recognizes that there are legitimate reasons for prescribing amphetamines (e.g., narcolepsy, minimal brain damage, and in conjunction with narcotics in control of intractable pain).

COUNCIL 1/22/81

EXPIRATION DATE AND CONTROL NUMBER ON DRUG LABELS

The Medical Society of the State of New York supports appropriate legislative or regulatory action that would mandate the inclusion of the expiration date and control number on all prescription drug labels on containers dispensed to patients.

BASED ON HOUSE OF DELEGATES RESOLUTION 79-4

GENERIC DRUGS

A distinctive feature of the practice of medicine is insistance by physicians that the highest possible quality characterize all the modalities utilized in the care of their patients. This feature is responsible for a level of care in the United States which is the highest anywhere in the world.

GENERIC DRUG SUBSTITUTION

The members of the Medical Society of the State of New York are as interested, if not more, as any other group of citizens in the State, in eliminating unnecessary costs in the delivery of health care and are actively engaged in developing measures that will lead to the most effective use of the dollars expended on health care, provided that none of these measures result in a lowering of the quality of medical care available to and afforded the public.

Two measures that could lead to a wider use of generic drugs should be considered.

The first is to conduct controlled, scientifically valid studies to conclusively establish that generic drug substitutes are equivalent in bio-availability and therapeutic equivalence. Disturbing reports have appeared in scientific medical literature that seriously question whether generic drugs approved by the FDA do, in fact, satisfy these criteria. In the face of such doubts, it is understandable that physicians will be reluctant to authorize drug substitutes for medications with which they are familiar by experience. The necessary studies do entail expenditure of money and delays, but these are small prices to pay when one is primarily concerned with providing the very best available drug to an ill patient.

A second major deterrent to physicians readily agreeing to generic drug substitution is the question of their liability if a substitute, of which they have insufficient knowledge and no control in choice, should prove to be ineffective for the purpose intended and the patient suffers thereby. Our Society has had correspondence with both the State and Federal Governments to determine the limitations of a physician's liability and the responses have been equivocal. It is our interpretation, as the Law now stands, that the physician may still be liable. An unequivocal statement of acceptance of complete liability, by either the Federal or State Government, in the event of untoward effects developing solely from the use of a generic drug substitute, such as was promulgated for the swine flu immunization program, would remove this anxiety from the physician's mind and encourage wider use of generic substitution.

There is a basic principle to be stressed in the consideration of this subject, namely, that no law should curb the professional judgment of a physician in the treatment of his patient. Years of intensive schooling and training mark the education of a physician and his licensure. It is such training that establishes the physician as the one best able to determine the most effective means of therapy for the individual problems of a particular patient. It is most earnestly to be hoped that no inadequate substitute for this professional judgment, based solely on cost, will ever be enacted.

HEROIN

The Medical Society of the State of New York opposes the use of heroin for pain relief in the terminally ill patient because there are as yet no data which show its superiority over other drugs currently being used. The increased availability of heroin could also open up avenues permitting its divergence to street and other abuses.

Council 6/21/79

LAETRILE

The Medical Society of the State of New York believes that there is no scientific evidence that laetrile is effective or safe in treating or preventing cancer, and that making it available to cancer patients could prove medically detrimental.

Patients, who are persuaded of the effectiveness of laetrile as a treatment for cancer often postpone seeking proven medical treatment which may eradicate or ameliorate the disease, and such delay may allow progression from a curable to an incurable situation.

In addition, some patients who may be considered terminal in one center may, in fact, respond to the newest therapies available. The decision that there is no further treatment which has any chance of benefit is a highly sophisticated one. Those who advocate the use of laetrile as a treatment for malignancies in effect exploit the victims of cancer and their families by offering unfounded representations that the patient's cancer will be cured.

Council 6/9/77
Reaffirmed 4/27/78

MARIJUANA

The Medical Society of the State of New York (MSSNY) believes that laws pertaining to individual use and possession of small amounts of marijuana for personal use should be decreased to misdemeanor status; that the sale and/or importation of marijuana be continued to be regarded a felony; that driving under the influence of marijuana should be prohibited by motor vehicle law; that State and federal health departments should develop means of quickly testing the potency of confiscated marijuana and develop rapid test methods for determining its presence in blood and urine.

MSSNY believes that, to prevent people from thinking there is no risk attached to the use of marijuana, an adequate education and drug information program to disseminate the latest information on the drug should be started by the New York State Health Department in conjunction with MSSNY and the State Education Department.

MSSNY urges that more serious research should be done at the Federal and State levels on the effects of long term and short term use of marijuana.

Council 12/21/78

The Medical Society of the State of New York supported a legislative action which provides for the use of marijuana to alleviate the ill effects of cancer chemotherapy, glaucoma, and for other therapeutic uses.

Council 6/26/80

TRIPLICATE PRESCRIPTION PROGRAM

The House of Delegates in 1980 called on the Medical Society of the State of New York to encourage the establishment of prescription practice committees throughout the State and to undertake discussions with the Department of Health of the State of New York with the objective of establishing a procedure which would require that the State Health Department verify the accuracy of the data in the Triplicate Prescription Computer Data Banks with these committees.

Based on House of Delegates Resolution 80-28

The Medical Society of the State of New York recommended to the New York State Legislature that the authority of the Commissioner of Health of the State of New York to add a controlled substance to the New York State Triplicate Prescription Program in an emergency situation expire after 60 days unless specifically authorized for continuation by the Legislature, and that the Triplicate Prescription Program be studied by an independent group five years from January 1, 1978, by which time enough evidence may have been accumulated to evaluate its continuation.

Based on Substitute Resolution for Resolution 80-39 and 80-53, House of Delegates

UNIT IDENTIFICATION

The Medical Society of the State of New York seeks Federal legislation requiring that all unit medications such as pills, capsules, ampules, etc., manufactured and sold for human consumption, be required to have clearly imprinted upon each, the uniform National Drug Code Number (NDC #) for easy and ready identification of the drug contents of such medication units.

Based on House of Delegates Resolution 78-56

DUE PROCESS

The basic principles of a fair and objective hearing should be accorded to the physician whose professional conduct is being reviewed. These basic guarantees are: a specific charge, adequate notice of hearing, the opportunity to be present and to hear the evidence, and to present a defense. These principles apply whether the hearing body is a medical society tribunal or a hospital committee composed of physicians.

Council 12/16/76

EUTHANASIA

The use of Euthanasia is not in the province of the physician.

Council 12/16/76

See also *Living Wills*

EXPERT MEDICAL WITNESS

Ethical Guidelines for MSSNY Members as Medical Experts

Whereas, the spirit of justice is being thwarted by the fact that some doctors pose and testify as experts in medical fields in which they lack expertise; and

Whereas, the Medical Society of the State of New York has the obligation to provide ethical guidelines for its membership; therefore be it

Resolved, that the Medical Society of the State of New York establish ethical guidelines for its membership providing the criteria for medical experts as follows:

1. An expert witness must have basic educational and professional knowledge as a general foundation for his testimony, and, in addition, have current personal experience and practical familiarity with the problems being considered and be actively engaged in the practice of the medical subject under discussion.

   This may be evidenced by one or more of the following:

   a. Board certification.

   b. Current active membership in a recognized specialty organization, such as ACS, ACOG, or ACP, etc.

   c. Where the physician has been granted privileges in a hospital or institution in the department in which the physician holds himself to be an expert.
2. Physicians completely retired from active practice, shall be considered expert if the time of completed retirement is not greater than five (5) years, and if the physician has previously been qualified as an expert in any of the above categories.

Council 2/22/79

FEDERAL TRADE COMMISSION

The Federal Trade Commission has exceeded the authority conferred upon it by Congress and has, through exercise of its rule making powers, overriden State laws and prevented voluntary associations from setting standards of professional responsibility for their own members. The Medical Society of the State of New York firmly believes that Congress should reaffirm the traditional role of the states to regulate the professions as well as the authority of professional societies to conduct their activities without unwarranted and excessive federal government interference.

Council 6/26/80

FLUORIDE RINSE PROGRAM

The Medical Society of the State of New York endorses the concept of school fluoride rinse programs and that members of MSSNY encourage the schools to participate in fluoride rinse programs in those communities without fluoridation of drinking water.

Based on House of Delegates Resolution 80-12

GASOLINE RATIONING

The Medical Society of the State of New York respectfully requests that the Departments of Energy, both federal and state, understand and take regulatory recognition of the fuel priorities of all health professionals so that any fuel plan does not impact adversely on the rendering of quality medical care.

Council 9/28/78

GENETIC DEFECTS — PHYSICIAN RESPONSIBILITY TO INFORM PATIENT INFORMED CONSENT—OBSTETRICS

The physician has a responsibility to inform the patient/couple of the risk of possible genetic defects when the patient is at risk because of age, previous obstetrical history, maternal/paternal family history, or exposure to predisposing factors; to advise the patient/couple of the availability of genetic counselling, types of diagnostic procedures, and the related risks involved.

The patient/couple has a responsibility to seek counseling when the possibility of genetic defects exists, as evidenced in their personal or family history, and to secure information that will enhance the patient/couple's accountability in productive decision-making.

Physician responsibility should be based on the standards of medical practice and the methods of procedure prevailing at the time of counseling.

Only a small percentage of birth defects have specific diagnostic tests. The great majority of defects are not able to be diagnosed prenatally.

Council 5/17/79

HEALTH INSURANCE CLAIM FORMS

The New York State Superintendent of Insurance has implemented a Universal Health Claim Form on September 1, 1979, to be utilized by all commercial insurance carriers.

The form recommended by the Superintendent of Insurance is the AMA modified claim form. It is hoped that those elements not included in the Superintendent's provisions can be incorporated at a later date within the same scope as the commercial insurance carriers and this will result, upon completion, in the utilization of the AMA modified claim form for all services rendered by physician providers in the State of New York.

HEALTH SYSTEMS AGENCIES

The MSSNY questions the constitutionality of PL 93-641. However, as it is the law, MSSNY encourages its component county medical societies to establish HSA committees, to become knowledgeable and involved, and to make themselves available to the Agencies for discussion. It also endorses the AMA action in its legal challenge of the law.

We question whether PL 93-641 will attain its stated goals because of the minimal role alloted to the practicing physician. The keystone of any successful health care plan is the practicing physician. Good medical patient-physician relations.

The introduction to PL 93-641 reads: ". . . it is imperative that the provider be encouraged to play an active role in developing health policy at all levels." The MSSNY has been discouraged to observe that HSA activity within New York State has ignored this concept at all levels. We are disturbed that a program which has the potential to completely alter the delivery of medical care ignores the benefits to be derived from the expertise of the privately practicing physician.

The PL 93-641 program should be a cooperative effort, with practicing physicians a prime source of information to be utilized by HSA at all levels.

Council 12/16/76

HMOs — IPAs

Whereas, the Federal government is fostering the development of HMOs; and

Whereas, industry, hospitals, entrepreneurs, politicians, and others are developing HMOs in their communities; and

Whereas, health planning agencies are recommending the development of HMOs as an alternative to the conventional system; and

Whereas, the development of physician sponsored fee-for-service type of individual practice associations (IPA) are being explored as an alternative method of health care delivery; and

Whereas, county medical societies are beginning to develop this type of program; now therefore be it

Resolved, That the Medical Society of the State of New York encourage county medical societies to study the development of individual practice associations as one possible alternative method of health care delivery; and be it further

Resolved, That the MSSNY develop a mechanism to aid the county medical societies in this effort.

Council 6/21/79

HOME HEALTH CARE

The Medical Society of the State of New York encourages the stimulation of physician interest in and acceptance of home care as an integral part of the overall continuum of medical care. We also emphasize the need for medical schools and internship programs to educate medical students, interns, residents, and practicing physicians in the value and proper use of home health care programs. Hospital boards and medical staffs should encourage community interest in support of home health care programs. Community health planning agencies should have representation from organizations concerned with providing home care services; and practicing physicians should involve themselves in developing home health care programs along with community health planning agencies.

The Medical Society of the State of New York supports the concept that all home health agencies, voluntary or proprietary, should be subject to the same controls, regulations, and standards.

The Medical Society of the State of New York also supports the concept that the physician is responsible for monitoring the home health care of his patients, or for the transferal of this responsibility to another physician.

Council 9/15/77 (Abstract)

For further information relative to the Medical Society of the State of New York position on Home Health Care inquire at the Medical Society of the State of New York headquarters about —

1. An article on Home Health Care, published in the October, 1978, issue of the New York State Journal of Medicine, and
2. Statement of the Medical Society of the State of New York re Alternatives to Institutionalization, presented to the Senate and Assembly Committees in December, 1976.

HOME HEALTH CARE FOR THE ELDERLY

The Medical Society of the State of New York supports the concept that reimbursement for home health care for the elderly be provided on a twenty-four hour a day basis, seven days a week, if required for the adequate care of the patient and to prevent the institutionalization of such patient for reasons not requiring institutional care.

Based on House of Delegates Resolution 80-37

HOSPICE

A hospice is a concept of care, home and family centered, designed to meet the physical, psychological, spiritual, and social needs of terminally ill patients and their families. This care shall be rendered by a physician-led interdisciplinary team.

The Medical Society of the State of New York concurs with the position of the American Medical Association "approving the physician-directed hospice concept to enable the terminally ill to die in surroundings more homelike and congenial than the usual hospital environment and encouraging extension and third party coverage of this specialized approach for the provision of terminal care."

The seven goals of good hospice care are:

1) To keep the patient at home as long as possible.
2) To help the patient to live as fully as possible.
3) To support the family as the unit of care.
4) To supplement, not duplicate existing services.
5) To keep costs down through adequate peer review.
6) To educate health professionals and lay people.
7) To limit the use of hospices to clearly defined terminal needs.
   (Clearly defined terminal needs mean those physical, psychological, spiritual, and social requirements necessary to ensure the tranquillity, fulfillment, and dignity of the dying patient. A terminal state implies the cessation of heroic, highly technological treatment and the initiation of palliative, comfort-oriented procedures)

COUNCIL 6/21/79

HOSPITAL MEDICAL STAFF CRITERIA

The policy of the Medical Society of the State of New York is that admission to a hospital medical staff should be on an individual basis, after an impartial review by the medical staff credentialing committee of the applicant's qualifications, such impartial review should serve as the basis for the hospital Board of Trustees' final determination upon request for appointment to the medical staff, and that membership in any group affiliated with the hospital shall not be a substitute for review of the individual's qualifications.

BASED ON HOUSE OF DELEGATES RESOLUTION 80-25
AMENDED BY COUNCIL 1/22/81

See also *MEDICAL STAFF MEMBERSHIP*

HYPNOSIS

Hypnosis is a medical procedure which should only be used by qualified physicians. The Medical Society of the State of New York believes there is great potential for its abuse by unqualified persons.

HOUSE OF DELEGATES 1964

LICENSURE

At the present time there is no official State Society policy as to the requirement of licensure as a prerequisite for membership in the county or State medical societies.

COUNCIL 12/16/76

LITIGATION

GUIDELINES TO BE FOLLOWED BY COUNTY MEDICAL SOCIETIES IN REQUESTING FINANCIAL ASSISTANCE FROM THE MEDICAL SOCIETY OF THE STATE OF NEW YORK IN CONNECTION WITH LEGAL FEES FOR LITIGATION OR ADMINISTRATIVE HEARINGS CONCERNING THE COUNTY MEDICAL SOCIETY OR ITS MEMBERS

The following policies shall govern the administration of the MSSNY legal fee aid plan:

1. The County Medical Society shall promptly advise the Executive Vice-President of the contemplated litigation or administrative hearing giving full details of the matter involved.
2. The County Medical Society shall give an estimate of the amout of legal fees involved and a specific request for the financial assistance requested.
3. Aid will be provided for legal fees only in matters clearly redounding to the benefit of the Medical Society of the State of New York and its membership at large.
4. The final decision as to whether legal fee aid will be granted will be made by the Council of the MSSNY with the concurrence of its Board of Trustees.

COUNCIL 11/20/80

LIVING WILLS

As to the question of "living wills," the Medical Society of the State of New York has adopted the following position:

1. The concept of an agreement between a patient and his doctor on how best to work out the treatment patterns of a terminal illness is valid.
2. Whether this concept should be embodied in a written document signed by doctor and patient, is open to question. The Medical Society of the State of New York feels at this time that such a contract will create a rigid and arbitrary agreement seriously affecting the doctor-patient relationship negatively.
3. Any legislation authorizing "living wills" further solidifies the danger of locked-in positions and the possibility of

> the irreversibility of a prior decision because the patient is incapable of informed rescission. The Medical Society of the State of New York now feels that statutory permission will exacerbate the uncertainties of this very delicate situation rather than clarify the matter.

Therefore it is our present recommendation that the entire matter of how best to treat the terminally ill patient should rest on a privileged verbal communication between a patient and the physician responsible for care. Should the Legislature seek to enact law pertinent to this problem, the Medical Society of the State of New York has taken the position that support of such a measure should be avoided but outright opposition is not indicated.

COUNCIL 4/27/78

See also *EUTHANASIA*

MANPOWER ASSISTANCE

The Medical Society of the State of New York supports the concept of continuing some form of federal manpower financial assistance and support, including general institutional grants, special project grants for medical schools, and the continuation of the National Health Service Corps and other support mechanisms such as long-term low interest loans for medical students.

COUNCIL 6/26/80

MEDICAL CARE OF THE INDIGENT

The "Indigent" is composed of more than those individuals with a per capita income below the poverty level fixed by federal agencies (OEO). It was recognized that variation by age, place of residence in the state, education, life style, and race provided a spectrum of "Indigent" including those with incomes beyond the poverty level.

The statement "health is a right" was discussed; we believe that nothing which requires the individual's participation is a right in itself. There is a right however, to access to information and services leading to health. To the extent that this includes physician's services, there is a right to access to medical care.

Medical care includes the series of processes solely in the competence of a physician, which may be delegated. This includes diagnosis and formulation of treatment programs for human disease, past, present, or potential. It includes all those activities of data collection and therapy carried out by others under a physician's direction. (It thus includes activities carried out by technicians and therapists, as well as physician assistants or associates, and nurse clinicians or practitioners.)

From a physician's point of view, the care of the "Indigent" once an accepted part of practice, has become professionally and economically unsatisfactory. With fixed fee schedules, often below usual fees, plus undue amounts of paper work, and external restrictions on practice behavior, many physicians (especially in primary patient care) have problems in treating the "Indigent" in their offices. The "Indigent" and near "Indigent" receive care in emergency rooms, hospital and medical school clinics, neighborhood and storefront health centers, and from individual physicians who conduct high volume practices.

The root of this change is considered by the MSSNY to be low fees for care under the Medicaid program. Other factors in this behavior include patient noncompliance, patient unreliability with appointments and publication of Medicaid receipts; but mainly, good doctors' services are not purchasable at Medicaid fees.

Care of the "Indigent" by salaried physicians in clinic settings, while often professionally excellent, is very expensive. The MSSNY believes this results from decreased incentives for efficiency in salaried practice, plus the impact of other expenses such as social services, dental services, health education, and family planning.

Crisis medicine (often not truly emergent) in emergency rooms is considered expensive, discontinuous, devoid of health education, and inherently unsatisfactory to patients and physicians. The brief visits to volume practitioners seeing "Indigent" patients solve few problems, the MSSNY believes, because adequate study for diagnosis, preventive health education, and evaluation of treatment is neglected.

It is therefore the quality of care which has suffered most by the shift in style of care of the "Indigent." Low unit fees, especially without review of performance, has not saved money, either. The quality of medical care and economics are inseparable.

The dissatisfaction with the present medical care of the "Indigent" is widespread. Noted are the cultural gaps between "Indigent" patients and most physicians; the absence of artful concern in volume care settings; the discontinuity in emergency rooms and clinics. While admitting that many of the "Indigent" lack skill in using available medical care, the frustrations of relative unavailability are recognized.

The Medical Society of the State of New York makes the following suggestions for legislative, regulatory, and professional system changes:

1. Return "Indigent" patients to physicians' offices and teaching clinics or family practice models, through
2. Revision of New York State Medicaid schedules to provide usual and customary fees, and
3. Recognition by Medicaid and Medicare of organized Primary Patient Care teams
4. Well developed Peer Review to assure quality, and
5. Administered on a local level by government contract with the medical profession.

HOUSE OF DELEGATES 1973

MEDICAL DATA

CONFIDENTIALITY

Every patient should be treated with attention and consideration, and the confidences which doctors of medicine receive should be guarded with the most scrupulous fidelity and honor. The obligation extends beyond the period of professional services; none of the privacies of individual or domestic life, no infirmity of disposition or flaw of character observed during medical attendance, should ever be divulged by doctors of medicine except when required by statute law or by the courts.

Principles of Professional Conduct (Chapter II, Section 2)

MEDICAL DATA CONFIDENTIALITY

The Medical Society of the State of New York strongly opposes the identification of patients by name unless the patient is informed of the fact that the medical data relating to him or her will be provided to a data bank, and for the purpose it will be used.

Based on House of Delegates Resolution 78-65

A complete set of Ethical Guidelines for Data Centers Handling Primary Medical Records is available, upon request, at the Society headquarters in Lake Success.

See also *Confidentiality*

MEDICAL RECORDS — RELEASE OF

Section 17 of the Public Health Law — Release of Medical Records:

Upon the written request of any competent patient, parent or guardian of an infant, or committee for an incompetent, an examining, consulting or treating physician or hospital must release and deliver, exclusive of personal notes of the said physician or hospital, copies of all x-rays, medical records, and test records including all laboratory tests regarding that patient to any other designated physician or hospital, provided, however, that such records concerning the treatment of an infant patient for venereal disease or the performance of an abortion operation upon such infant patient shall not be released or in any manner be made available to the parent or guardian of such infant. Either the physician or hospital incurring the expense of providing copies of x-rays, medical records, and test records including all laboratory tests pursuant to the provisions of this section may impose a reasonable charge to be paid by the person requesting the release and deliverance of such records as reimbursement for such expenses.

For the purposes of this section the term "laboratory tests" shall include but not be limited to tests and examinations administered in clinical laboratories or blood banks.

RELEASE OF MEDICAL INFORMATION TO THE PUBLIC

Many people, literate and well educated, do not possess a special knowledge of medicine. Medical books and journals are not always easily accessible or readily understandable.

The medical profession considers it ethical for a doctor of medicine to meet the request of a component or constituent medical society to write, act, or speak for general readers or audiences. On the other hand, it may often happen that the representatives of popular news media are the first to perceive the adaptability of medical material for presentation to the public. In such a situation the doctor of medicine may be asked to release to the public some information, exhibit, drawing, or photograph. Refusal to release this material may be considered a refusal to perform a public service, yet compliance may bring the charge of self-seeking or solicitation.

An ethical doctor of medicine therefore may provide appropriate information regarding important medical and public health matters which have been discussed during open medical meetings or in technical papers which have been published, and he may reveal information regarding a patient's physical condition if the patient gives his permission, but he should seek the guidance of appropriate officials and designated spokesmen of component or constituent medical societies. Spokesmen should be empowered to give prompt and authoritative replies, and a list should be issued which identifies them and discloses the manner in which they may be reached. These provisions are made with full knowledge that the primary responsibility of the doctor of medicine is the welfare of his patient, but proper observation of these ethical provisions by the doctor of medicine concerned should protect him from any charge of self-aggrandizement.

Scientific articles written concerning hospitals, clinics, or laboratories which portray clinical facts and technics and which display appropriate illustrations may well have the commendable effect of inspiring public confidence in the procedure described. Articles should be prepared authoritatively and should utilize information supplied by the doctor of medicine or doctors of medicine in charge with the sanction of appropriate associates.

When any sort of medical information is released to the public, the promise of radical cures or boasting of cures or of extraordinary skill or success is unethical.

An institution may use means, approved by the medical profession in its own locality, to inform the public of its address and the special class, if any, of patients accommodated.

Principles of Professional Conduct, (Chapter I, Section 4)

STATEWIDE PLANNING AND RESEARCH COOPERATIVE SYSTEM (SPARCS) PROGRAM

The Medical Society of the State of New York approves of any program that secures statistically valid data which can be used in determining how health care is delivered in New York State. We take exception, however, to any procedure which might violate patient/physician privacy and confidentiality.

We agree with the basic principle of SPARCS as a research mechanism for obtaining data for determining and developing information concerning the delivery of health care to our residents at reasonable cost. It, therefore, concurs with the stated objectives of SPARCS as being a "comprehensive, centralized hospital data system which includes hospital stay information, billing information, and hospital financial information. Its purpose is to establish a data base which will contribute to the State's goal of providing high quality medical care to all New York residents at reasonable cost. Information from the system will be used for studies of hospital financing and reimbursement, for investigation of hospital fraud and abuse, utilization review and review of quality of care, for health planning and resource allocation studies, and for identification of areas of prevalence of disease, high mortality and high morbidity."

The Medical Society of the State of New York takes exception to any data collection mechanism that interferes with the patient/physician relationship by identifying either the physician or the patient. SPARCS should not be a device to obtain information that would be ultimately used to determine if and when punitive action could be taken. If, after evaluation of available data, it is obvious that there are other areas where it becomes necessary that material be gathered for studies related to physicians and their patients, the request for additional information should entail collaborative efforts on the part of the Medical Society of the State of New York and the New York State Department of Health and the Office of Health Systems Management.

The Medical Society of the State of New York feels the inclusion of individual patient/physician data is not necessary for the compilation of the required information and, therefore, serves no purpose in being included as a data element. Individual physician and patient identifiers must not be utilized by this system in order not to violate the confidentiality and privacy that exists between such physicians and patients.

Until such time as those two specific data elements can be removed, the Medical Society of the State of New York cannot support this particular data system.

Council 11/15/79

MEDICAL EXAMINER'S SYSTEM — FORENSIC MEDICINE

The Medical Society of the State of New York feels that the Medical Examiners System should be extended on a regional basis throughout the State to replace any existing Coroner Systems; and that the Medical Examiners Office should be an entirely independent unit of government with a direct line of responsibility in a municipality to the mayor, who should not delegate his responsibility to the appointee of another agency.

Any funding for Medical Examiners Offices available from the State should be paid to the city or county government and earmarked for the Medical Examiner's Office and not diverted to other agencies' nonrelated needs.

House of Delegates 1980

MEDICAL STAFF MEMBERSHIP AND HOSPITAL PRIVILEGES FOR PRIVATE PRACTICING PHYSICIANS

Guidelines Established by the Medical Society of the State of New York for Individual Hospitals and their Medical Staffs in Determining Medical Staff Membership and Hospital Privileges

A. General Guidelines for Membership on the Medical Staff.

1. License to practice medicine in New York State.
2. Ethical and moral character.
3. Residence within a reasonable working distance from the hospital.
4. Willingness to contribute with service in an assigned role within the hospital provided that the nature of this service is commensurate with his type of practice and is approximately equal to that, provided by other members of the medical staff.
5. Willingness to abide with the bylaws of the medical staff.

B. Granting of Hospital Privileges

Privileges shall be granted on the basis of the individual qualifications which shall take into consideration the interest, training, experience, and ability of each practitioner.

1. Hospitals without clinical departments shall grant privileges on an individual basis in accordance with the interest, training, and experience of the applicant. Such hospitals may consult with the nearest departmentalized hospital, if necessary, in the determination of such privilege. It shall be accepted that in today's medical community there is no role for the partially trained specialist.

2. Hospitals with clinical department shall grant privileges based on training and experience consistent with the requirements of the various Specialty Boards. Family physicians who apply to such hospitals shall become members of the Department of Family Practice, where it has been developed, with clinical privileges assigned by the Department of Family Practice with the approval of the specific department in which privileges are requested.

3. The dilemma of teaching hospitals in obtaining an adequate patient population that would permit the fulfillment of their purposes results in large measure from the lack of admissions by the personal physicians because of the loss of control of their patients when the latter are admitted into such institutions. A solution to this problem can be reached if university hospitals establish a methodology that will effect close cooperation between the personal physicians and the university hospital attending and resident staff, with the personal physicians continually involved in the care of their patients, and observe the policy originally proposed by this society and later adopted by the AMA and that is that there shall be one physician responsible for the patient's care, and that physician shall be the patient's own private physician.

All new medical staff members shall pass through a period of observation and supervision to assure that each member shall be able to demonstrate the ability to apply his training and experience in an appropriate manner.

Furthermore, all members of all clinical departments shall be subject to appropriate peer review on a periodic and equitable basis as a means of assuring continuing quality patient care.

C. Appeals Mechanisms

While it realized that most hospitals have bylaws with a built-in due process mechanism for staff membership and medical privileges, the possibility for obstruction to staff membership and medical privilege for inappropriate reasons does exist.

Therefore, it is recommended that an Appeals Board consisting of representatives from the MSSNY and the HANYS be created as a BODY to which individual appeals might be submitted, but only after an attempt for a local solution to the problem by the concerned county medical society has proven to be unacceptable to either the hospital or to the individual practitioner.

House of Delegates 1979
Amended, House of Delegates 1980

See also *Hospital Medical Staff Criteria*

MENTAL HYGIENE PROGRAMS

There has been a fragmentation of services available to the mentally disabled, between State, county, and local programs. This has produced duplicative delivery and a tendency toward an uncoordinated approach to treatment. The result has been either wasteful or dysfunctional, leading to the "Long Beach Syndrome" or "Revolving Door" patient care.

The Medical Society of the State of New York takes the position that all State mental health services for the mentally disabled should be within a single organizational component under the direction of a qualified psychiatrist with authority over all the administrative and program elements of these services. This is in accord with the position of the American Psychiatric Association.

Any program must include a department of mental hygiene with authority over and direct input into all health delivery services. There should be a hierarchy of structure encompassing community mental health centers at the local level, halfway houses for those recently discharged, guidance clinics, and hospital facilities comprising both acute and chronic care beds. All this should function in a smooth transition from hospital inpatient care to follow-up clinics with continued, closely monitored supervision.

Community and consumer participation is desirable but should be advisory rather than directive. All local services should be under the jurisdictional surveillance of the State mental health department. The entire delivery system should be a quasi-independent body free of undue interference from the legislative and executive departments of government.

MOTORCYCLE HELMET LAW

The Medical Society of the State of New York continues to oppose any legislation to repeal the Motorcycle Helmet Law.

Based on House of Delegates Resolution 77-61

NATIONAL HEALTH INSURANCE

The Medical Society of the State of New York endorses the concept of comprehensive health insurance for all, including both basic and catastrophic benefits. Full hospitalization for both inpatient and outpatient care should be included in such coverage, as well as full parallel coverage for medical care, both in the physician's office and in the institutional setting. All diagnostic, therapeutic, and preventive care by or under the direction of a physician should be included. In addition, benefits for skilled nursing facility care, home health services, psychiatric care, full dental care for children, and emergency dental care should be covered.

The cost of this program should be designed to meet America's health-care needs utilizing a system of cost sharing between employers and their employees, or between government and the recipient in the case of the nonemployed, self-employed, and the elderly. In the former case, the program should continue the present widespread use of employment-based insurance funded in the private sector. The basis of this element of the program should be premium sharing between employer and employee, with the employer paying at least 65% of such cost.

In the case of the nonemployed, self-employed, and the elderly, premiums on insurance should be shared between the insured individual or family and the Federal government based on income, utilizing tax credits. For the indigent, the premium should be paid in full. For others, as income rises, the Federal assistance would diminish. Federal government financing should be limited primarily to subsidies on an income-related basis of the premium for the nonemployed, self-employed, and the elderly as a supplement to Medicare benefits, and to tax assistance for five years to employers who experience an increase in payroll costs as a result of the employment-based insurance requirements.

The program should be further maintained on a sound financial basis with the aid of coinsurance and deductibles. Coinsurance should be based upon income, with no coinsurance requirement for low income individuals. Exclusive of such low income group, a 10% coinsurance should apply to all income levels with no absolute dollar limit. Should the amount expended by the recipient exceed 10% of annual income, catastrophic coverage would begin.

The program should be administered primarily in the private sector through the use of private health insurance. Federal government participation should be limited essentially to assisting the poor and low income individuals pay health insurance premiums. A national Health Insurance Board should be constituted to establish minimum standards of qualification for insurers and insurance plans, while State Insurance Departments would continue to regulate private insurers. The Board should be composed of a majority of doctors of medicine, a majority of whom should be actively involved in the private practice of their profession.

The program should preserve the right of every person to select his own physician and health care institution. It should enable the individual person to have a free choice of protection plan, which could be in the form of an insurance policy purchased from a company, membership in a prepayment plan (including HMOs-IPAs), or membership in a prepaid group practice plan. In addition, the physician's freedom should be preserved, including his choice of practice. The program should also build upon the strengths of our pluralistic health care delivery system, utilizing various modes of health care delivery and allowing for further development through innovation and experimentation.

The program should preserve the integrity of the physician-patient relationship, and contain a general prohibition against Federal interference in the practice of medicine. Individual freedoms of both the physician and patient should be maintained with the individual physician exercising his own best judgment as to medical care and treatment needed for his patient.

The program should establish uniform benefit coverage for all persons. It should also provide for a continuation of the same insurance premium for an individual for thirty days after termination of employment, with sixty additional days if paid for by the individual. While the person was covered by unemployment compensation and to the end of the calendar year if not employed by then, he would be covered at government expense.

Basic financing should be in the private sector, with no financing through Social Security. Federal premium subsidies should be made from general revenues through credits against income tax or redemption of "certificates of entitlement." The Social Security Administration would not administer the new program. Overall program administration should be in the private sector and should be the primary responsibility of private insurance carriers, with premium assistance administered through the Federal tax laws.

Licensure and recognition or certification of health manpower should continue to be a State-level responsibility. Peer review should be an integral part of the program. Rather than institute a single inflexible method of quality control the Health Insurance Board should develop appropriate mechanisms for quality review at the time of implementation of the program.

In addition to cost controls through coinsurance and deductibles, hospital reimbursement should be subject to acceptable formulae as determined and agreed upon by the hospitals and insurers thus including a variety of reimbursement methods including prospective reimbursement. Medical service should be subject to usual, customary, and reasonable levels of reimbursement, and be subject to present private insurer programs of review. Also, the Health Insurance Board should have authority to establish appropriate mechanisms for utilization review of services.

Coverage should be furnished by private insurers on a risk and underwriting basis. Benefits payable under any duplicate coverage should be coordinated to avoid duplication of payments. Identification of expenses according to classes of health care providers would be desirable to assess costs of the program. Flexibility in the delivery and financing of health care to promote efficiency and to effect economy is acceptable, provided quality medical care is maintained.

House of Delegates, 1978
Reaffirmed Council 3/22/79

The position of the Medical Society of the State of New York on National Health Insurance is not inconsistent or in conflict with the four basic principles of the American Medical Association on National Health Insurance. These four basic principles of the AMA are available upon request through the Society's headquarters at Lake Success.

Council 6/26/80

NATIONAL HEALTH INSURANCE — CATASTROPHIC

The Medical Society of the State of New York feels that any proposal for catastrophic health insurance must provide uniform benefits available to all Americans, administered and funded primarily through the private sector, and preserving free choice of private physicians.

Council 6/26/80

See also *National Health Insurance*

ROLE OF NONPROFESSIONALS IN SURGERY AND OPERATING ROOMS

1. With the exception of a licensed health professional whose contact shall be limited to activity within the statutorily defined scope of practice of that particular licensed health profession, under no circumstances should a nonphysician have any direct contact with a patient undergoing surgery in the operating room.

2. No licensed physician should utilize any device without first becoming fully familiar with its properties and the proper procedures to be followed with respect to its inclusion in any operative procedure.

3. The best interests of the patient will be served if technically expert representatives of equipment manufacturers are available for consultation in connection with an operation. Such availability shall be for the sole purpose of providing the physician with expert technical advice in the event that the device in any way malfunctions.

The Medical Society of the State of New York does not in any way condone and, indeed, affirmatively condemns any direct interaction between a nonphysician, other than a licensed health professional acting within statutorily defined areas of capability, and a patient.

This statement does not preclude the presence of legally assigned medical students, as well as students of paraprofessional occupations who are duly enrolled in the accredited programs of teaching and affiliated hospitals.

Council 1/26/78

NURSING

The Medical Society of the State of New York and the New York State Nurses Association recognize the increasing knowledge, expertise, and responsibility of the medical and nursing professions. As health science and technology have advanced, practitioners of both disciplines have incorporated new tools, techniques, and therapeutic measures into their practices. The utilization of particular diagnostic and therapeutic tools by nurses and physicians is determined by the distinctive education and scope of practice of the respective professions.

Although it is obvious that patients have distinct medical and nursing needs it must be recognized that there are areas of practice common to both professions. It is essential that the traditional cooperative relationship of the physician and nurse be maintained. To assure this principle, the parameters of overlapping or common areas of practice must continue to be determined by the medical and nursing professions.

Both societies agree that there is no need for amendments to either the Nurse Practice Act or the Medical Practice Act. Such action is unnecessary for the following reasons:

1. The promulgation of a list of "Medical Acts" would be totally impractical. Creation of such a list would ignore differences in various areas of the State and various

types of institutions. Any additions or deletions would require separate legislative acts.

2. The medical profession has established methods for setting standards in various specialties. Physicians must be qualified in respect to training, experience, and capability before being recognized as specialists. The nursing profession has also developed and continues to strengthen mechanisms for regulating the preparation and practice of nurses. Such systems have functioned as efficient safeguards for the public and have not, in the past, required legislative action.
3. The State Education Department already has statutory responsibility to promulgate regulations required to implement articles of the Education Law for each profession. Such regulations could be more effectively accomplished through advice from the appropriate professional organizations than through restrictive legislation.

Therefore, the two societies have established a Joint Practice Commission, composed of representatives of the Medical Society of the State of New York and New York State Nurses Association. This Commission is charged with defining areas of practice common to both professions and establishing guidelines for interdisciplinary practice of physicians and nurses. Such guidelines are similar to joint position statements developed by these organizations in the past and would serve to advise and assist the Commissioner of the Department of Education.

COUNCIL 12/16/76

Addendum to Position Paper on Nursing

The Council of the Medical Society of the State of New York on March 23, 1978, reiterated its opposition to legislation which would increase the scope of nursing practice so as to blur the distinction between nursing and medical practice.

OBSTETRICS — OUT OF HOSPITAL DELIVERIES

Labor and delivery, while a physiologic process, clearly presents potential hazards to both mother and fetus before and after birth. These hazards required standards of safety which are provided in the hospital setting and cannot be matched in the home situation. We recognize, however, the legitimacy of the concern of many that the events surrounding birth be an emotionally satisfying experience for the family. We support those actions that improve the experience of the family while continuing to provide the mother and her infant with accepted standards of safety available only in hospitals which conform to standards as outlined by the American College of Obstetricians and Gynecologists and the American Academy of Pediatrics.

COUNCIL 10/25/79

PATIENTS' COMPLAINTS

Complaints against physician members are handled at the county medical society level. Any violation of the Medical Practice Act, the Constitution and Bylaws of the County Medical Society, the Bylaws of the Medical Society of the State of New York, or the Principles of Professional Conduct of the Medical Society of the State of New York, can lead to censure, suspension, or expulsion from membership.

Charges against a member physician must be submitted in writing to the county medical society secretary, who will furnish a copy to the accused and the chairman of the proper committee at once. The Committee will investigate the charges on the merits, and the accused physician will be given a reasonable time to file a written answer to the charges.

The Committee will then hold a hearing, at which the complainant, the accused, witnesses, and counsel may all be present and submit evidence, enter objections to evidence submitted by the other party, and call and cross-examine witnesses. The Committee may question the complainant, the accused physician, and witnesses. The Committee may accept any evidence deemed appropriate and pertinent.

A report of the hearing will be submitted by the Committee to the medical society. It should include a determination by the Committee that the charges be either sustained or not sustained, and a recommendation that the accused by (a) censured, (b) suspended, or (c) expelled.

A copy of this report shall be mailed to the acused physician, who may submit written objections to the report to the Medical Society. The report, and the accused physician's objections, if any, shall be on file at the Secretary's office and available to the membership.

The report and objections will be considered at a properly announced meeting of the membership. The accused may also request permission to present oral arguments. The granting of permission is discretionary with the president of the Medical Society.

The membership shall vote to determine the decision of the county medical society. Censure or suspension shall require a two-thirds vote of the members present and voting. A three-fourths vote of the members present and voting shall be required to expel a member.

The accused may request to be furnished, at his own expense, a copy of the recording or transcript which must be made of the Committee hearing and the meeting of the membership.

The accused physician has the right to appeal the decision of the county medical society to the Judicial Council of the MSSNY and to the Judicial Council of the AMA (if the accused is a member of the AMA) under such rules as these two bodies may adopt. However, the disciplinary actions voted by the county medical society shall remain in full force and effect during the pendency of such appeal or appeals.

COUNCIL 1/27/77

PHYSICIAN'S ASSISTANT

The Medical Society of the State of New York (MSSNY) defines a physician's assistant as "a skilled person qualified by academic and practical training to provide patient services under the supervision and direction of a licensed physician who is responsible for the performance of that assistant."

The MSSNY strongly endorses the concept of innovation and experimentation in developing new categories of health manpower.

MSSNY supports the development of a certification examination for the assistant to the primary care physician. This will help ensure orderly development of the "physician's assistant" concept under medical guidance, thereby helping to assure the maintenance of high standards.

The MSSNY opposes employment of physician's assistants by hospitals. Direct responsibility to and supervision by a physician is a critical element in the safe and effective performance of a physician's assistant. A physician's assistant should not function in that capacity when employed and paid by a hospital or a full-time, salaried, hospital-based physician.

The MSSNY recommends a holding action on licensure of any additional allied health occupations until long-term solutions are developed. Such a moratorium is needed in order to forestall perpetuating a system of narrowly defined, legally circumscribed health service roles and permit time for coordinated development of practical alternatives.

Because of different patterns of practice from one locality to another, questions involving the duties and supervision of specific categories of allied personnel can best be resolved at State and local levels.

Council 12/16/76

Addition to Position Paper on Physicians' Assistants

It is further recommended that a system be evolved to assure firmer controls of the training, supervision, and utilization of physicians' assistants.

The Medical Society of the State of New York is constantly evaluating the position of physicians' assistants and the effect on the delivery of health care in New York State, and is attempting to control the activity of such physicians' assistants in order to avoid abuse.

SERVICES PERFORMED BY PHYSICIANS' ASSISTANTS

Services performed by physicians' assistants should not be payable unless such services are rendered under the *direct* and *personal* supervision of the physician.

Council 6/26/80

PHYSICIAN DISTRIBUTION

The MSSNY recognizes that a shortage of available medical professionals exists in several locales within the State, and therefore supports efforts to encourage communities to acquire the necessary medical manpower to serve its citizens. The MSSNY has called upon its 61 component county medical societies to work with communities within their areas to resolve the problem of maldistribution of medical practitioners.

Experience indicates that no single approach will solve the health needs of every community but careful review of some solutions will surely benefit those communities having problems in obtaining appropriate health care delivery for its citizens. It is the responsibility of the local rural or urban community to secure the necessary information on health care requirements and manpower availability and provide health education with emphasis on utilization of health services by its citizens.

Council 12/16/76

The Medical Society of the State of New York at the present time is undertaking a demographic survey of physicians which we hope will clarify those areas which are underserved. We hope that this information will be available in the near future so that we may help those communities where such a shortage exists.

PHYSICIAN REPRESENTATION ON HOSPITAL GOVERNING BOARDS

The Medical Society of the State of New York recommends that to insure the delivery of quality medical care to the hospitalized patient at the lowest possible cost it is incumbent upon hospitals to have a physician member representing the medical staff on its governing board (Board of Trustees, Board of Managers, etc.). Physicians, by virtue of their experience and training, are best able to assist other members of the governing board in developing priorities regarding medical services.

Privately practicing physicians from the community served by the hospital, elected or appointed by the medical staff to the board, and serving in a capacity equal to all other members of the board will provide the most effective form of liaison between the medical staff and the board.

Council 12/16/76

PROFESSIONAL LIABILITY

The problem of professional liability litigation and insurance has resulted from a significant increase in the number and size of claims against physicians and other health care providers. This phenomenon has not only increased the cost of health care services for patients, but has also threatened the availability of such care due to a lack of adequate professional liability insurance coverage.

The basic cause of any malpractice case is some injury to the patient. Once sustained the question arises whether the injury was caused by the negligence of the health care provider or was the result of some uncontrollable circumstance. In some cases, unforeseen complications will develop which are the natural outcome of the treatment administered to the patient and not the result of negligent treatment by the physician. There are also instances when total recovery cannot be achieved regardless of the treatment used. In addition, there may be adverse results which occur simply because of the patient's physical makeup, his lack of response to certain treatments or his unwillingness to care for himself and follow the doctor's orders. In each of these cases, there is no malpractice.

It is generally recognized that litigation in the area of malpractice is a social problem as well as a medical-legal problem. People are more suit-conscious today, and are aware of the existence of liability insurance and presence of a large sum for payment of claims. However, they mistakenly believe that it is the insurance company, and not the public who ultimately pays these claims. The medical profession believes that this propensity towards litigation to solve our grievances is one of the major causes of the present malpractice crisis.

What the medical profession seeks in its search for a solution to this problem is fairness for both the patient and the physician. Doctors have no interest in trying to deprive any patient injured by a negligent act from recovering compensation for the damages he has sustained. What the profession is interested in is discouraging unwarranted suits and encouraging the just and rapid settlement of legitimate claims.

As a result of this changing social and legal climate, the present tort law/liability insurance system has been incapable of handling the professional liability problem. In studying the various elements of this system, the Medical Society of the State of New York has recognized three main areas which require corrective action:

1. Objectivity in the decision making process.
2. Expeditious handling of cases.
3. Realistic guidelines for compensation.

To correct the shortcomings and inequities in the present litigation system, the Medical Society of the State of New York advocates the creation of an administrative system in which professional medical liability cases would be decided by a panel of medical and legal experts, liability would be determined in accordance with established criteria, and compensation would be awarded for the actual losses which the claimant has sustained.

COUNCIL 12/16/76

PROTEIN SUPPLEMENTS

The Medical Society of the State of New York is of the opinion that the use of high protein food supplements is contraindicated for the purpose of weight reduction and reiterates its warning that high protein formulae not be used in weight reduction programs.

COUNCIL 6/21/79

PSRO

The Medical Society of the State of New York is on record as recognizing the necessity of implementing PSRO legislation through local PSRO organizations.

However, in view of the ever increasing new demands upon a physician's time and skill for review activities, established by governmental laws and regulations, MSSNY has approved the principle that physicians be paid for such activities and that the remuneration be adequate.

MSSNY urges all county medical societies, or groups thereof, to undertake peer review.

The Council of the Medical Society of the State of New York opposes the Health Department of the State of New York doing utilization review for Medicaid and recommends that appropriate PSRO groups in the State be responsible for this program.

COUNCIL 12/16/76

QUACKERY

From the very beginning of its existence, the Medical Society of the State of New York has fought health quackery in order to protect the health of our people and to promote the highest quality of medical care.

The Medical Society of the State of New York, wherever possible, must expose and attempt to eradicate unscientific cultists, nostrums, false claims for therapeutic advices and treatment, diploma mills, food fadism, medical imposters and all types of pseudo-healing.

The Principles of Professional Conduct of the Medical Society of the State of New York declare that a sectarian or cultist as applied to medicine, is one who alleges to follow or in his practice follows a dogma, tenet, or principle based on the authority of its promulgator to the exclusion of demonstration and scientific experience. All voluntarily associated activities with cultists are unethical. A consultation with a cultist is a futile gesture if the cultist is wrongfully implied to have the same high grade of knowledge, training, and experience as is possessed by the doctor of medicine. Such consultation lowers the honor and dignity of the profession in the same degree in which it elevates the honor and dignity of those who are irregular in training and practice.

COUNCIL 12/16/76

REHABILITATION IN SKILLED NURSING FACILITIES

The patient's need for rehabilitation services is one of the two primary bases for the admission and acceptance of eligible patients under Medicare and Medicaid in an approved skilled nursing facility. Little attention has been paid to the standards and criteria by which the quality of this care can be evaluated in terms of medical audit. Many patients are admitted on the basis of need for rehabilitation services, to skilled nursing facilities that do not provide adequate programs. The comprehensive rehabilitation services to which these patients are entitled by law appear to be determined to be provided if there is a physical therapist providing some physical therapy services on a part time, or full time basis. This is manifestly inadequate.

If the need for comprehensive rehabilitation services is to be met, each institution that accepts patients on this basis must document the fact that comprehensive rehabilitation services are available, and have been provided when prescribed. In particular, each such admission must have a comprehensive rehabilitation evaluation or assessment which starts with the services of a physician who has training in this specialty field of medical care. This physician need not be a Diplomate of the American Board of Physical Medicine and Rehabilitation, although this would certainly seem desirable. However, the medical staff organization should provide for a physician who has had training and demonstrated interest in this field and who has accepted the responsibility for providing rehabilitation evaluation of new patients to the facility, and for providing leadership to the other members of the rehabilitation team from the various disciplines. In those cases where the attending physician wishes to maintain primary responsibility for the comprehensive rehabilitation evaluation, interaction with the rehabilitation team members, formulation of the group decisions including goals, prescription of the specific program, and reevaluations, this may be provided for in the medical staff rules and regulations. The consultant in rehabilitation medicine would then have responsibility for seeing that these functions are performed and documented. In most situations it would appear more appropriate for the rehabilitation medicine consultant to provide these functions for the attending physician on referral. There must be written documentation of the rehabilitation conference, the goals, prognosis, anticipated length of trial, prescription of the therapeutic program, results of reevaluations, and discontinuation of therapy when deemed no longer feasible. The rehabilitation medicine consultant must be in a position to prescribe braces, prostheses, and other assistive devices, including appropriate wheelchairs as indicated. Unless an appropriately trained physician has been so designated, and has accepted, and is performing this function on a regular basis, the extended care facility cannot be considered to be providing for the comprehensive rehabilitation needs of the patients.

The directives from Washington and the interpretation by State officials and inspectors have done little to properly see that capital "R" Rehabilitation programs are developed in these facilities. In fact, it has been brought to our attention in New York State that facilities have been advised that a physician in this role is not necessary, as long as there is a part time or full time physical therapist on the staff. This shows a complete misunderstanding of the place of rehabilitation medicine in the spectrum of comprehensive health care. This is particularly important because the skilled nursing facility is one of the primary loci in the continuum of health care services in which the rehabilitation needs of patients can be met. If the patient with rehabilitation potential must be discharged from the acute general hospital, and a rehabilitation center is not available, then capital "R" Comprehensive Rehabilitation in the skilled nursing facility is mandatory. The recognition of this responsibility was clearly in the minds of the Congress when these provisions were enacted. It is high time that the medical profession developed positive recommendations to see that this serious gap is corrected.

COUNCIL 6/8/78

SACCHARIN

The Medical Society of the State of New York is totally opposed to any ban on the use of saccharin, especially since there is no other sugar substitute available.

COUNCIL 11/17/77

SECOND OPINION

It is a time honored practice of the medical profession for physicians to request consultations when the patient's condition merits it. Reputable physicians never refuse a patient's request for consultation.

In regard to the current popular demand for "second opinion" programs, the Medical Society of the State of New York believes that such programs should always be voluntary, without any pressure on the patient, either subtle or overt, and that when sponsored by a third-party payer there should be no added cost to the patient. Physicians selected for consultation should be from an open and not a closed panel and the consultant used for the "second opinion" should not take over the care of the patient.

Publicity material regarding "second opinion" programs should be factual and not instill fears in the patient or imply distrust of the medical profession.

COUNCIL 5/17/79

SICK OR IMPAIRED PHYSICIAN

At its House of Delegates Meeting in 1976 the Medical Society of the State of New York adopted a set of guidelines for hospitals to use in handling staff physicians who are sick or impaired. The guidelines can be used in setting up procedures and in writing or amending staff bylaws.

The guidelines will be provided to hospitals or medical societies by MSSNY upon request.

See also *ALCOHOLISM*

SMOKING

The Medical Society of the State of New York has adopted a series of resolutions relative to smoking.

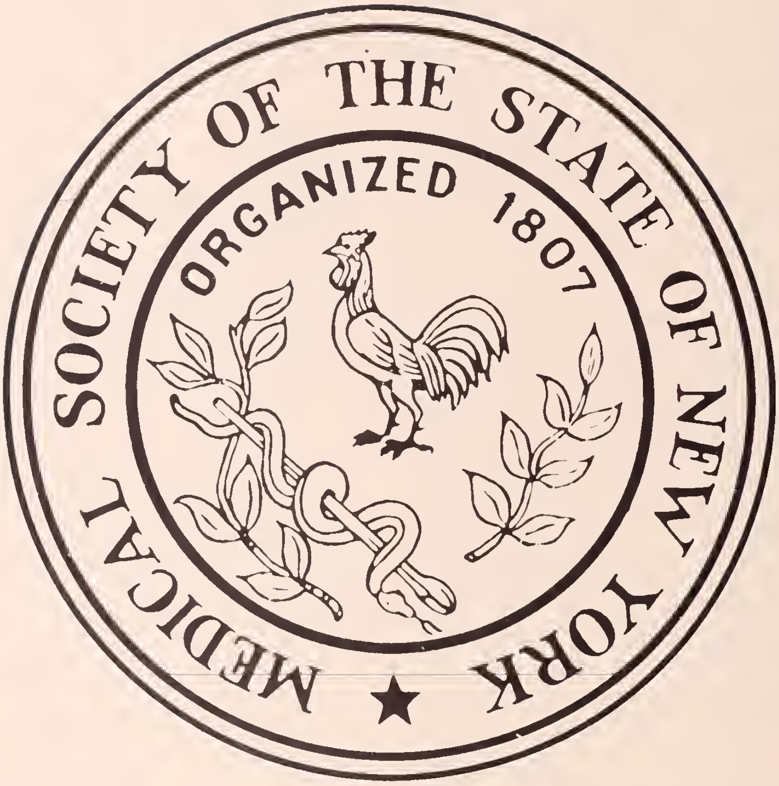
> The Medical Society of the State of New York, on May 24, 1973, approved and supported the concept of smoking clinics, which are organized and publicized through appropriate voluntary health agencies, and have public health support and participation of physicians and health professionals.
>
> In January of 1974 the Medical Society of the State of New York approved the use of "No Smoking" signs in MDs offices on a voluntary basis.
>
> The Council of the Medical Society of the State of New York on November 30, 1978, approved the following:
>
> — Support of the principle that smoking in public places be limited to certain designated areas.
>
> — Urged hospital authorities to take steps to remove cigarette vending machines and the sale of cigarettes from their premises, since this is totally inconsistent with a hospital's mission to protect the public health and is not in keeping with its standing as a symbol thereof.
>
> — Indicated its support of current national efforts to reduce the habit of smoking and charge those of its committees which have a responsibility in the area to review their potential contribution to the control of this public health problem, including those with a special concern for the young.

UNPROFESSIONAL CONDUCT

Unprofessional Conduct is defined under the New York State Board of Regents Rules as published in the October, 1977, issue of the *New York State Journal of Medicine* and amended by the Board of Regents in October, 1978.

The legal office of the Medical Society of the State of New York should be consulted for specific information on any aspect of the Board of Regents Rules.

See also *PRINCIPLES OF PROFESSIONAL CONDUCT*


MEDICAL SOCIETY OF THE STATE OF NEW YORK
ORGANIZED 1807

PRINCIPLES

of

PROFESSIONAL CONDUCT

AMENDED 1977

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ORGANIZED 1807

MEDICAL SOCIETY OF THE STATE OF NEW YORK
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PREFACE

THIS revision, entitled the *Principles of Professional Conduct of the Medical Society of the State of New York*, defines the duties of doctors of medicine to the profession, to the patient, and to the public without regard to penalties for any infraction thereof. The various county societies are charged with the duty of carrying out these principles and deciding the degree of discipline for those found guilty of unprofessional conduct. All such cases should be investigated by the boards of censors, or committees on discipline of the county societies, in order to determine the underlying motive, habit, or intention of those accused. The reports, recommendations, or decisions of the boards or committees should express full justice to those who are guilty and mercy to the innocent. This procedure should be used for the purpose of raising the ethical standard of the practice of medicine in the several counties of the State.

The oath as administered by Hippocrates at the Island of Cos, Asia Minor, to his students in the fifth century B.C., the prayer by Maimonides, and the Geneva Declaration, appear in appendix number one. At the present time the oath, or a modification of it, is administered to the graduates of the majority of the medical colleges of this State.

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THE PRINCIPLES OF PROFESSIONAL CONDUCT

CHAPTER I

General Principles

Section 1. The prime object of the medical profession is to render service to humanity; reward or financial gain is a subordinate consideration. Health care is the sole condition of its ministry, without stint or scruple. Whoever chooses this profession assumes the obligation to conduct himself in accord with its ideals. A doctor of medicine should be "an upright man, instructed in the art of healing." He must keep himself pure in character and be diligent and conscientious in caring for the sick. As was said by Hippocrates, "He should also be modest, sober, patient, prompt to do his whole duty without anxiety; pious without going so far as superstition, conducting himself with propriety in his profession and in all the actions of his life."

Groups and Clinics

Section 2. These Principles of Professional Conduct shall apply to doctors of medicine as individuals or as members of staffs of hospitals, clinics, colleges, schools, foundations, companies, partnerships, corporations, or groups, by whatsoever name they may be known.

Advertising and Solicitation

Section 3. The Medical Society of the State of New York does not prohibit the use of advertising when used in making certain information known to the public, which is entitled to know the names of physicians, the types of their practice, the location of their office, their office hours, and other useful information; i.e., biographical data, that will enable people to make a more informed choice of a physician.

The physician may furnish this information through the accepted local media for advertising; i.e., office signs, professional cards, dignified announcements, telephone directory listings, and reputable directories, which are open to all physicians on like conditions.

Solicitation of patients, directly or indirectly, by a physician, by groups of physicians, clinics, institutions or organizations is unethical. Solicitation includes, (1) the not always obvious devices of furnishing or inspiring newspaper, magazine or television comment concerning cases in which the physician, group or institution has been, or is, concerned; (2) the use of statements or claims intended or likely to create inflated or unjustified expectations of favorable results; (3) the use of statements or claims that are self-laudatory and imply that the physician's skills are superior to other physicians engaged in his field or specialty of practice; or (4) the use of statements or claims that contain incorrect or incomplete facts or representations or implications that are likely to cause the average person to misunderstand or be deceived.

The Relationship of the Doctor of Medicine to Media of Public Information

Section 4. Many people, literate and well educated, do not possess a special knowledge of medicine. Medical books and journals are not always easily accessible or readily understandable.

The medical profession considers it ethical for a doctor of medicine to meet the request of a component or constituent medical society to write, act, or speak for general readers or audiences. On the other hand, it may often happen that the representatives of popular news media are the first to perceive the adaptability of medical material for presentation to the public. In such a situation the doctor of medicine may be asked to release to the public some information, exhibit, drawing, or photograph. Refusal to release this material may be considered a refusal to perform a public service, yet compliance may bring the charge of self-seeking or solicitation.

An ethical doctor of medicine therefore may provide appropriate information regarding important medical and public health matters which have been discussed during open medical meetings or in technical papers which have been published, and he may reveal information regarding a patient's physical condition if the patient gives his permission, but he should seek the guidance of appropriate officials and designated spokesmen of component or constituent medical societies. Spokesmen should be empowered to give prompt and authoritative replies, and a list should be issued which identifies them and discloses the manner in which they may be reached. These provisions are made with full knowledge that the primary responsibility of the doctor of medicine is the welfare of his patient, but proper observation of these ethical provisions by the doctor of medicine concerned should protect him from any charge of self-aggrandizement.

Scientific articles written concerning hospitals, clinics, or laboratories which portray clinical facts and technics and which display appropriate illustrations may well have the commendable effect of inspiring public confidence in the procedure described. Articles should be prepared authoritatively and should utilize information supplied by the doctor of medicine or doctors of medicine in charge with the sanction of appropriate associates.

When any sort of medical information is released to the public, the promise of radical cures or boasting of cures or of extraordinary skill or success is unethical.

An institution may use means, approved by the medical profession in its own locality, to inform the public of its address and the special class, if any, of patients accommodated.

Patents, Commissions, Rebates, and Secret Remedies

Section 5. An ethical doctor of medicine will not receive remuneration from patents or on the sale of surgical instruments, appliances, and medicine, nor profit from a copyright on methods of procedures. The receipt of remuneration from patents or copyrights tempts the owners thereof to retard to inhibit research or to restrict the benefits derivable therefrom to patients, the public, or the medical profession. The acceptance of rebates on prescriptions or appliances or of commissions from attendants who aid in the care of patients is unethical.

An ethical doctor of medicine shall not have any financial interest in or own an optical dispensing facility such as a retail commercial store which sells optical products to the general public, unless it is established to the satisfaction of the local county medical society that such participation or ownership is necessary to meet the needs of the community.

An ethical doctor of medicine shall not have any financial interest in or own a pharmacy unless it is established to the satisfaction of the local county medical society that such ownership or participation is necessary to meet the needs of the patients of the community.

An ethical doctor of medicine does not engage in barter or trade in the appliances, devices, or remedies prescribed for patients but limits the sources of his professional income to professional services rendered the patient.

He should receive his remuneration for professional services rendered only in the amount of his fee specifically announced to his patient at the time the service is rendered or in the form of a subsequent statement, and he should not accept additional compensation, secretly or openly, directly or indirectly, from any other source, except as provided in Article VI, Section 3, of Chapter III.

The prescription or dispensing by a doctor of medicine of secret medicines or other secret remedial agents, of which he does not know the composition, or the manufacture or promotion of their use is unethical.

Evasion of Legal Restrictions

Section 6. An ethical doctor of medicine will observe the laws regulating the practice of medicine and will not assist others to evade such laws.

CHAPTER II
DUTIES OF DOCTORS OF MEDICINE TO THEIR PATIENTS

Standards, Usefulness, Nonsectarianism

Section 1. In order that a doctor of medicine may best serve his patients, he is expected to exalt the standards of his profession and to extend its sphere of usefulness. A sectarian or cultist as applied to medicine is one who alleges to follow or in his practice follows a dogma, tenet, or principle based on the authority of its promulgator to the exclusion of demonstration and scientific experience. All voluntarily associated activities with cultists are unethical. A consultation with a cultist is a futile gesture if the cultist is wrongfully implied to have the same high grade of knowledge, training, and experience as is possessed by the doctor of medicine. Such consultation lowers the honor and dignity of the profession in the same degree in which it elevates the honor and dignity of those who are irregular in training and practice.

Guarding the Patient's Confidence

Section 2. Every patient should be treated with attention and consideration, and the confidences which doctors of medicine receive should be guarded with the most scrupulous fidelity and honor. The obligation extends beyond the period of professional services; none of the privacies of individual or domestic life, no infirmity of disposition or flaw of character observed during medical attendance, should ever be divulged by doctors of medicine except when required by statute law or by the courts.

Prognosis

Section 3. The doctor of medicine should be a minister of hope and comfort to the sick; however, he should not fail to give timely notice of dangerous manifestations to the family or friends of the patient and also to the patient, when necessary.

The Patient Must Not Be Neglected

Section 4. A doctor of medicine is free to choose whom he will serve. He should, however, respond to any request for his assistance in an emergency or whenever temperate public opinion expects the service. Once having undertaken a case, the doctor of medicine should not neglect the patient, nor should he withdraw from the case without giving notice to the patient, his relatives, or his responsible friends sufficiently long in advance of his withdrawal to allow them to secure another medical attendant.

CHAPTER III
DUTIES OF DOCTORS OF MEDICINE TO EACH OTHER AND TO THE PROFESSION AT LARGE

Article I—Duties to the Profession

Upholding the Honor of the Profession

Section 1. A doctor of medicine is expected to uphold the dignity and honor of his vocation.

Membership in Medical Societies

Section 2. For the advancement of his profession, a doctor of medicine should affiliate with medical societies and contribute of his time, energy, and means so that these societies may represent the ideals of the profession.

Safeguarding the Profession

Section 3. Every doctor of medicine should aid in safeguarding the profession against admission to it of those who are deficient in moral character or education.

Section 4. A doctor of medicine should expose, without fear or favor, incompetent or corrupt, dishonest or unethical conduct on the part of members of the profession. Questions of such conduct should be considered, first, before proper medical tribunals in executive sessions or by special duty appointed committees on ethical relations, provided such a course is possible and provided, also, that law is not hampered thereby. If doubt should arise as to the legality of the doctor of medicine's conduct, the situation under investigation may be placed before officers of the law, and the investigators may take the necessary steps to enlist the interest of the proper authority.

Article II—Professional Services of Doctors of Medicine to Each Other

Dependence of Doctors of Medicine on Each Other

Section 1. As a general rule, a doctor of medicine should not attempt to treat members of his family or himself. Consequently, a doctor of medicine should cheerfully and without recompense give his professional services to doctors of medicine or their dependents if they are in his vicinity except otherwise herein provided.

Compensation for Expenses

Section 2. When a doctor of medicine from a distance is called to advise another doctor of medicine about his own illness or about that of one of his family dependents, and the doctor of medicine to whom the service is rendered is in easy financial circumstances, a compensation that will at least meet the traveling expenses of the visiting doctor of medicine should be proffered him. When such a service requires an absence from the accustomed field of professional work of the visitor that might reasonably be expected to entail a pecuniary loss, such loss may, in part at least, be provided for in the compensation offered.

One Doctor of Medicine in Charge

Section 3. When the doctor of medicine or a member of his dependent family is seriously ill, he or his family should select one doctor of medicine to take charge of the case. The family may ask the doctor of medicine in charge to call in other doctors of medicine to act as consultants.

Article III—Duties of Doctors of Medicine in Consultations

Consultations Should be Encouraged

Section 1. Doctors of medicine should request consultations in perplexing cases, and the attending doctor of medicine should cheerfully consent to a consultation when desired by the patient or his representative.

Conduct in Consultations

Section 2. In consultations no insincerity, rivalry, or envy should be indulged. All due respect should be observed toward the doctor of medicine in charge of the case, and no statement or remark should be made which would unjustly impair the confidence reposed in him.

Punctuality

Section 3. The utmost punctuality should be observed by doctors of medicine in meeting for consultation; only a rare emergency should interfere with such an engagement.

Patient Referred to Consultant

Section 4. When a patient is sent to a consultant and the doctor of medicine in charge of the case cannot accompany the patient, the doctor of medicine in charge should provide the consultant with a history of the case, together with the doctor of medicine's opinion and outline of the treatment, or so much of this as may be of service to the consultant. As soon as possible after the consultant has seen the patient, he should address the doctor of medicine in charge and advise him of the results of the consultant's investigation. The opinions of both the doctor of medicine in charge and the consultant are confidential and must be so regarded by each.

Discussions in Consultation

Section 5. After the doctors of medicine called in consultation have completed their investigations, they and the doctor of medicine in charge should meet by themselves to discuss the course to be followed. Statements should not be made nor should discussions take place in the presence of the patient, his family, or his friends, unless all doctors of medicine concerned are present or unless all of them have consented to another arrangement.

Responsibility of Attending Doctor of Medicine

Section 6. The doctor of medicine in charge of the case is responsible for treatment of the patient. Consequently, he may prescribe for the patient at any time and is privileged to vary the treatment outlined and agreed on at a consultation whenever, in his opinion, such a change is warranted. However, after such a change, it is best to call another consultation; then the doctor of medicine in charge should state his reasons for departing from the course decided at the previous conference. When an emergency occurs during the absence of the doctor of medicine in charge, a consultant may assume authority until the arrival of the doctor of medicine in charge.

Disagreement in Consultation

Section 7. It may happen that the attending doctor of medicine and the consultant cannot agree in their views of the case or of the treatment to be pursued; with the consent of the patient another consultant may be called.

Consultant and Attendant

Section 8. When a doctor of medicine has acted as consultant in an illness, he should not become the doctor of medicine in charge in the course of that illness, except with the consent of the doctor of medicine who was in charge at the time of the consultation, unless the patient insists on the change.

Article IV—Duties of Doctors of Medicine in Cases of Interference

Misunderstandings to be Avoided

Section 1. A doctor of medicine, in his relationship with a patient who is under the care of another doctor of medicine, should not give hints relative to the nature and treatment of the patient's disorder, nor should a doctor of medicine do anything to diminish the trust reposed by the patient in his own doctor of medicine. In embarrassing situations, or whenever there seems to be a possibility of misunderstanding with a colleague, a doctor of medicine should seek a friendly interview with his fellow.

Social Calls on Patient of Another Doctor of Medicine

Section 2. When a doctor of medicine makes social calls on another doctor of medicine's patient, he should avoid conversation about the patient's illness.

Services to Patient of Another Doctor of Medicine

Section 3. A doctor of medicine should not take charge of, or prescribe for, another doctor of medicine's patient during any given illness (except in an emergency) until the other doctor of medicine has relinquished the case or has been formerly dismissed.

Criticism to be Avoided

Section 4. When a doctor of medicine does succeed another doctor of medicine in charge of a case, he should not disparage, by comment or insinuation, the one who preceded him. Such comment or insinuation tends to lower the confidence of the patient in the medical profession and so reacts against the patient, the profession, and the critic.

Emergency Cases

Section 5. When a doctor of medicine is called in an emergency because the personal or family doctor of medicine is not at hand, he should provide only for the patient's immediate need and should withdraw from the case on the arrival of the personal or family doctor of medicine. However, he should first report to the personal or family doctor of medicine the condition found and the treatment administered.

Precedence When Several Doctors of Medicine are Summoned

Section 6. In cases of sudden illness or accidents when several doctors of medicine are summoned, the doctor of medicine acting in such emergency should request that the family doctor of medicine be called and, upon his arrival, should withdraw in his favor.

A Colleague's Patient

Section 7. Whenever a doctor of medicine requests another doctor of medicine to attend his patients during his temporary absence from his practice, professional courtesy requires the acceptance of such appointment if consistent with his other duties. The doctor of medicine acting under such an appointment should give the utmost consideration to the interests and reputation of the absent doctor of medicine. All such patients should be restored to the care of the latter upon his return.

Substitute in Obstetric Work

Section 8. When a doctor of medicine attends a woman who is in labor because the one who was engaged to attend her is absent, the doctor of medicine summoned in the emergency should relinquish the patient to the first engaged on his arrival. The one in attendance is entitled to compensation for the professional services he may have rendered.

Article V—Disputes Between Doctors of Medicine—Arbitration

Section 1. Whenever there arises between doctors of medicine a grave difference of opinion, or of interest, which cannot be promptly adjusted, the dispute should be referred for arbitration, preferably to an official body of a county medical society.

Article VI—Compensation

Limits of Gratuitous Service

Section 1. Indigency of a patient, and the obligation of doctors of medicine to attend one another and the dependent members of the families of one another, should command the gratuitous services of a doctor of medicine. Institutions and organizations for mutual benefit or for accident, sickness, and life insurance, or for analogous purposes should meet such costs are covered by the contract under which the service is rendered.

Conditions of Medical Practice

Section 2. A doctor of medicine should not dispose of his services under conditions that make it impossible to render adequate service to his patients, except under circumstances in which the patient concerned might be deprived of immediately necessary care.

Contract Practice

Section 3. Contract practice as applied to medicine means the practice of medicine under an agreement between a duly licensed doctor of medicine or a group of doctors of medicine, as principals or agents, and a corporation, organization, political subdivision, or individual, whereby partial or full medical services are provided for a group or class of individuals on the basis of a fee schedule, or for salary or for a fixed rate per capita.

Contract practice per se is not unethical. Contract practice is unethical if it permits of features or conditions that are declared unethical in these Principles of Professional Conduct or if the contract or any of its provisions causes deterioration of the quality of the medical services rendered. Contract practice which allows diversion of fees for professional medical services to a hospital, organization, or political subdivision is unethical.

Free Choice of Doctor of Medicine

Section 4. The right of the patient freely to choose his doctor of medicine must be preserved and maintained. Nothing in any individual or group method of practice must be permitted to interfere with this right.

Free choice of doctor of medicine is defined as the unrestricted freedom of a patient to choose his own doctor of medicine. The interjection of a third party who has a valid interest or who intervenes between the doctor of medicine and the patient does not per se cause a contract to be unethical. A third party has a valid interest when, by law or volition, the third party assumes legal responsibility and provides for the cost of medical care and indemnity for occupational disability.

If, however, the third party be an organization or corporation which agrees to provide medical and/or surgical services through the medium of individual or group practice, payment to the doctors of medicine under contract being either on an indemnity or a per capita basis, a requirement restricting choice of doctor of medicine to either the individual or group practitioners under contract vitiates the subscriber's right to free choice of doctor of medicine. This is against the best interests of the public and of the medical profession.

Commissions

Section 5. When a patient is referred by one doctor of medicine to another for consultation or for treatment, whether the doctor of medicine in charge accompanies the patient or not, the giving or receiving of a commission by whatever term it may be called or under any guise or pretext whatsoever is unethical.

Purveyal of Medical Service

Section 6. Except where permitted by law, and only in the manner permitted and to the extent permitted by law, any doctor of medicine who in any way contributes to the coercion or exploitation of a fellow physician is unethical.

Proration of Fees

Section 7. It is not unethical for a fee to be prorated among two or more doctors of medicine when such physicians have actively participated in the medical and/or surgical care of a patient and each physician's fee is commensurate with the services he has rendered. The patient who has received such joint services shall be advised of the participation of each physician and shall receive a separate, itemized statement from each. Such proration would be considered ethical if it was limited to instances where a contracted fee payment for a service has been made by an insurance company.

CHAPTER IV

THE DUTIES OF DOCTORS OF MEDICINE TO THE PUBLIC

Doctors of Medicine As Citizens

Section 1. Doctors of medicine, as good citizens, possessed of special training, should promote the health of the community wherein they dwell. They should bear their part in enforcing the laws of the community and in sustaining the institutions that advance the intrests of humanity. They should cooperate especially with the proper authorities in the administration of sanitary laws and regulations.

Public Health

Section 2. Doctors of medicine should enlighten the public concerning quarantine regulations and measures for the prevention of epidemic and communicable diseases. At all times the doctor of medicine should notify the constituted public health authorities of every case of communicable disease under his care, in accordance with the laws, rules, and regulations of the health authorities. When an epidemic prevails, a doctor of medicine must continue his labors without regard to the risk of his own life.

Pharmacists

Section 3. Doctors of medicine should recognize and promote the practice of pharmacy as a profession and should recognize the cooperation of the licensed pharmacist in education of the public concerning the practice of ethical and scientific medicine and pharmacy.

Conclusion

These Principles of Professional Conduct have been and are set down primarily for the good of the public and should be observed in such a manner as shall merit and receive the endorsement of the community. The life of the doctor of medicine, if he is capable, honest, decent, courteous, vigilant, and a follower of the Golden Rule, will be in itself the best exemplification of ethical principles.

Enforcement of the Principles of Professional Conduct

Component county medical societies should cooperate with the properly constituted authorities in the enforcement of the laws of the State of New York and of their respective localities relating to the public health and to the practice of medicine and should report promptly to such authorities any evidence received by them indicating any violation of such laws. The commission of an act or acts by a doctor of medicine which would subject him to reprimand or discipline or which would subject his license to practice medicine to revocation, suspension, or annulment shall constitute a violation of these Principles of Professional Conduct.

Amendments or Alterations

Any component county medical society may adopt other or amend or alter these regulations respecting professional conduct, binding only upon its own members if not inconsistent or in conflict with these Principles of Professional Conduct, or with the Bylaws of the Medical Society of the State of New York.

Enforcement, Discipline, and Punishment

Each component county medical society is charged with the duty of carrying out and enforcing, within its jurisdiction, the terms and provisions of these Principles of Professional Conduct. Any breach or infraction of any one or more of the terms or provisions of these Principles of Professional Conduct, or of any one or more of the terms or provisions of any further or additional regulations respecting professional conduct adopted as herein provided by any component county medical society shall subject the offender to and shall be sufficient cause for discipline. Each component county medical society, through bylaws, provisions adopted in accordance with its own constitution and bylaws and in accordance with the Bylaws of the Medical Society of the State of New York, shall (*a*) fix and determine the degree or degrees of discipline and the nature and extent of the penalty or punishment which may be imposed and shall (*b*) adopt its own rules and regulations of methods and procedure respecting all disciplinary investigations, proceedings, and action. Interpretations and rulings of each component county medical society with respect to these Principles of Professional Conduct or with respect to any further and additional regulations respecting professional conduct adopted by it as herein provided shall be binding upon its members until modified, revised, or reversed upon appeal by the Medical Society of the State of New York, or by a court of competent jurisdiction.

APPENDIX I

The Oath

I swear by Apollo the physician and Aesculapius and Hygeia and Panacea and all the gods and goddesses that according to my ability and judgment I will keep this Oath and this stipulation—to reckon him who taught me this Art equally dear to me as my parents—to share my substance with him and relieve his necessities if required—to look upon his offspring in the same footing as my own brothers and to teach them this Art if they shall wish to learn it without fee or stipulation—and that by precept, lecture, and every other mode of instruction, I will impart a knowledge of the Art to my own sons and those of my teachers and to disciples bound by a stipulation and oath, according to the Law of Medicine, but to none others.

I will follow the system of regimen which according to my ability and judgment I consider for the benefit of my patients and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to anyone if asked nor suggest any such counsel; and in like manner I will not give to a woman a pessary to produce abortion. With purity and with holiness I will pass my life and practice my Art. I will not cut persons laboring under the stone but will leave this to be done by men who are practitioners of this work. Into whatever houses I enter, I will go into them for the benefit of the sick and will abstain from every voluntary act of mischief and corruption, and further from the seduction of females or males, of freemen and slaves. Whatever in connection with my professional practice or not in connection with it I see or hear in the life of men which ought not to be spoken of abroad I will not divulge, as reckoning that all such should be kept secret.

While I continue to keep this Oath unviolated, may it be granted to me to enjoy life and the practice of the Art respected by all men in all times. But should I trespass and violate this Oath, may the reverse be my lot.

Hippocrates
(*460–357 B.C.*)

Prayer

I begin once more my daily work. Be thou with me, Almighty Father of Mercy, in all my efforts to heal the sick. For without Thee, man is but a helpless creature. Grant that I may be filled with love for my art and for my fellowmen. May the thirst for gain and the desire for fame be far from my heart. For these are the enemies of Pity and the Ministers of Hate. Grant that I may be able to devote myself, body and soul to thy children who suffer from pain.

Preserve my strength, that I may be able to restore the strength of the rich and the poor, the good and the bad, the friend and the foe. Let me see in the sufferer the man alone. When wiser men teach me, let me be humble to learn, for the mind of man is so puny and the art of healing is so vast. But when fools are ready to advise me or to find fault with me, let me not listen to their folly. Let me be intent upon one thing, O Father of Mercy, to be always merciful to thy suffering children.

May there never rise in me the notion that I know enough, but give me strength and leisure and zeal to enlarge my knowledge. Our work is great and the mind of men presses forward forever. Thou has chosen me in thy grace, to watch over the life and death of Thy creatures. I am about to fulfill my duties. Guide me in this immense work so that I may be of avail.

Maimonides
(*1135–1204 A.D.*)

Declaration of Geneva

At the Time of Being Admitted as Member of the Medical Profession:

I solemnly pledge myself to consecrate my life to the service of humanity.

I will give to my teachers the respect and gratitude which is their due.

I will practice my profession with conscience and dignity.

The health of my patient will be my first consideration.

I will respect the secrets which are confided in me.

I will maintain by all means in my power, the honor and the noble traditions of the medical profession.

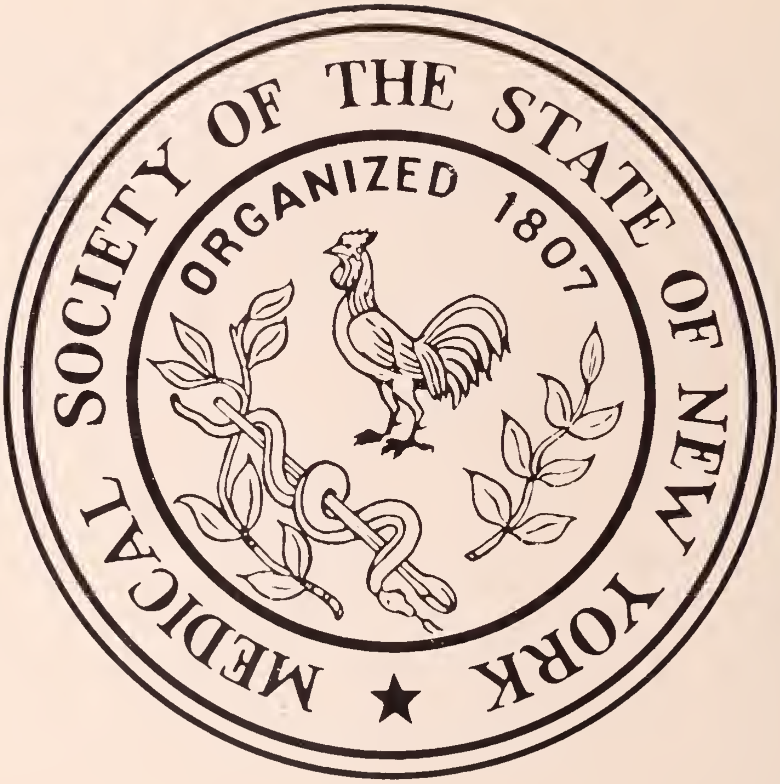
My colleagues will be my brothers.

I will not permit considerations of religion, nationality, race, party politics, or social standing to intervene between my duty and my patient.

I will maintain the utmost respect for human life, from the time of conception; even under threat, I will not use my medical knowledge contrary to the laws of humanity.

I make these promises solemnly, freely, and upon my honor.

Adopted by the General Assembly
of the World Medical Association
at Geneva, Switzerland, September, 1948.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APRIL 1981

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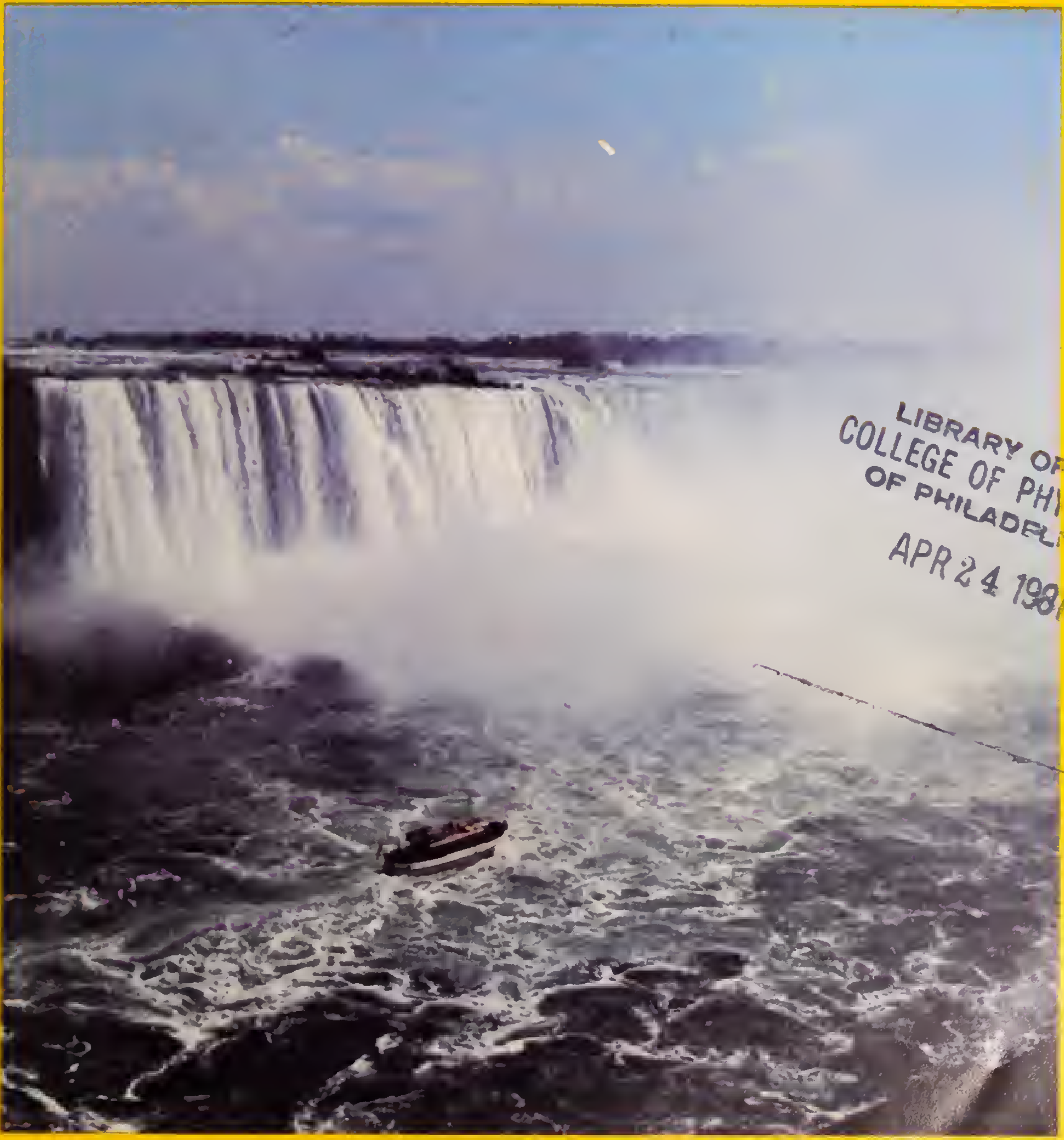
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New York State Journal of Medicine (ISSN 0028-7628)

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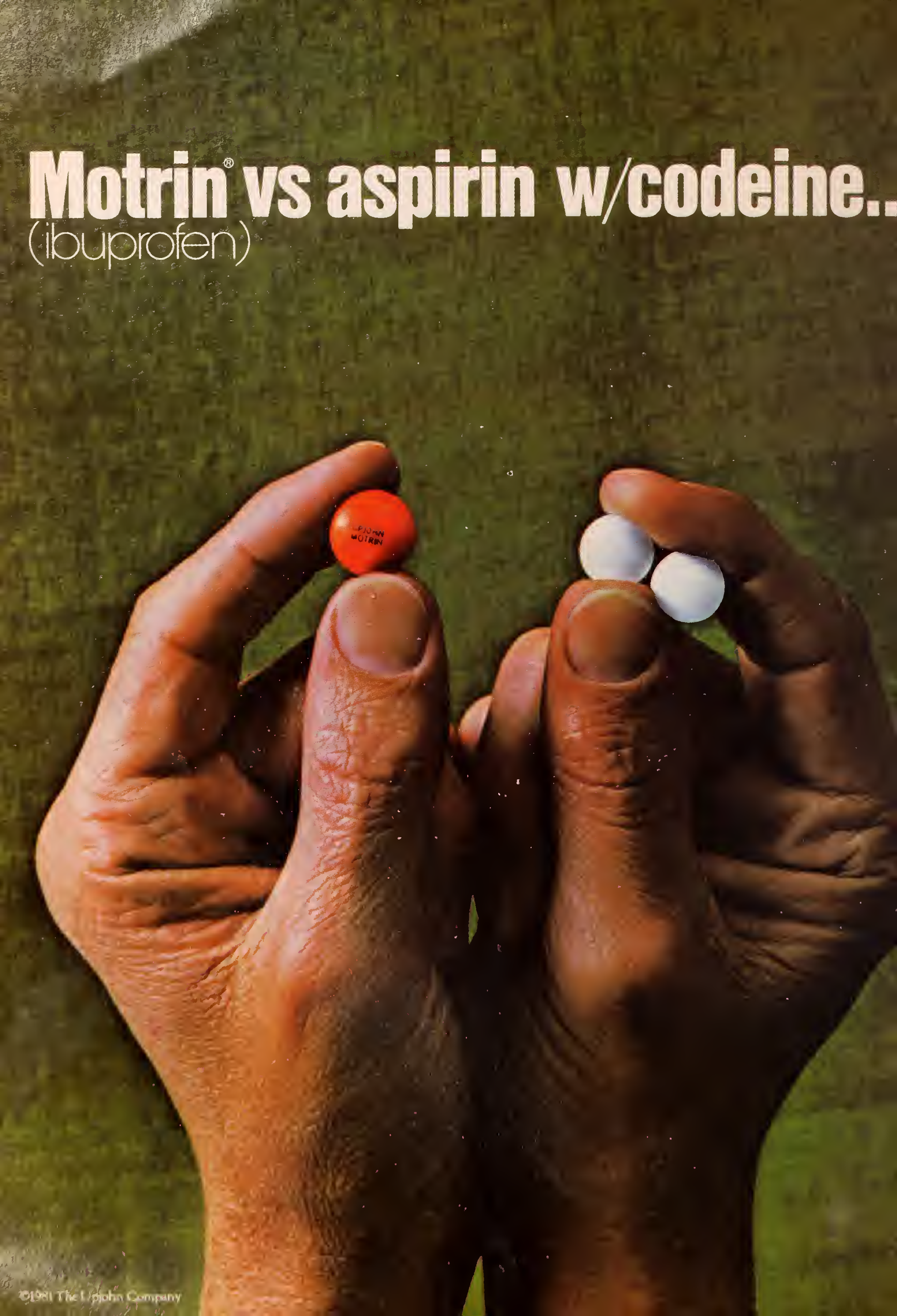

Motrin® vs aspirin w/codeine...
(ibuprofen)

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compare the analgesic effect

A *Motrin* 400 mg dose relieved postsurgical dental pain as effectively as a combination of 650 mg aspirin and 60 mg codeine (two aspirin-with-codeine No. 3 tablets) in a study of 129 patients. In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the *Motrin* and aspirin-with-codeine groups… with *Motrin* being significantly more effective ($p = 0.03$) at the three-hour interval. Active treatment was significantly more effective ($p < 0.0001$) than placebo at all time intervals.

Comparison of pain relief
Motrin vs aspirin-codeine combination

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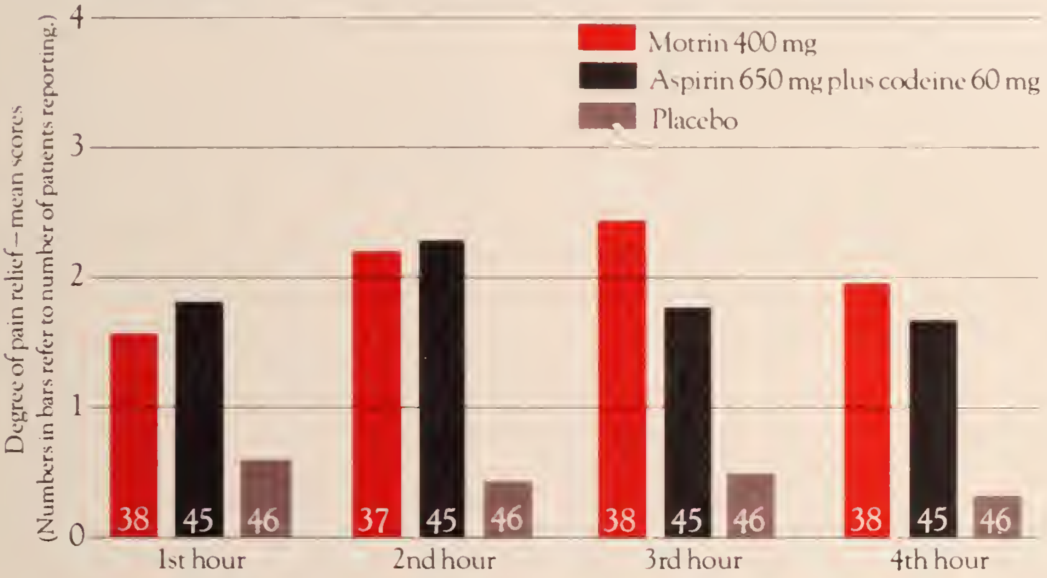

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For relief of mild to moderate pain:

Motrin® 400 mg TABLETS
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Please turn the page for a brief summary of prescribing information.

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Motrin® (ibuprofen) **now proved an effective analgesic for mild to moderate pain**

Motrin® Tablets (ibuprofen, Upjohn)

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Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* Used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

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Medical Meetings

Sixth Daniel Laszlo Memorial Lecture

Montefiore Hospital and Medical Center and its Staff and Alumni Association cordially invite you to attend The Sixth Daniel Laszlo Memorial Lecture on "Thyroidal Induction of the NA$^+$ Pump: a Comparison of Normal and Neoplastic Cells," by Isidore S. Edelman, M.D., Robert Wood Johnson, Jr. Professor of Biochemistry, Chairman, Department of Biochemistry, Columbia University College of Physicians and Surgeons, Wednesday, April 22, 1981, 3:00 p.m., in the Rosenthal Auditorium.

A reception follows in the Conference Room, Henry L. Moses Research Institute.

American Cancer Society presents a national conference on human values and cancer

The American Cancer Society will present a national conference on human values and cancer in Washington, D.C., at the Washington Hilton, April 23 to 15. This CME activity meets the criteria for 15½ credit hours in Category 1 of the Physician's Recognition Award of the American Medical Association; 15½ prescribed hours by the American Academy of Family Physicians; and 15½ credit hours in Category 2-D by the American Osteopathic Association.

For information write: National Conference on Human Values and Cancer, American Cancer Society, 777 Third Avenue, New York, New York, 10017.

Seminar

"Disability in the Aging: an Overview" will be presented by the New York Medical College-Westchester County Medical Center, Valhalla, in cooperation with the Section on Geriatrics, Westchester Academy of Medicine, on Thursday, April 30.

For additional information contact: Eugene Moskowitz, M.D., Division of Physical Medicine and Rehabilitation, Westchester County Medical Center, Valhalla, N.Y. 10595.

Symposium

The Society for Liaison Psychiatry is presenting a symposium on "Noncompliance of the Medically Ill," March 7, 9 a.m. to 5:15 p.m., at The Lenox Hill Hospital, 100 East 77th Street, New York, N.Y.

Medical determinations in Workers' Compensation

Problems associated with the medical and legal assessment of causation and disability play an increasingly sig-

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BOOK REVIEWERS NEEDED

The New York State Journal of Medicine has accepted the responsibility to review the latest books in the field of medicine submitted to it by the publishers. The Journal is updating its list of reviewers and is asking the participation of physicians in this worthy endeavor.

The books are mailed with detailed instructions and are to be retained by the reviewer, with the Journal's compliments. Won't you please volunteer to render this important and greatly appreciated service to your colleagues? The Journal and they depend on your continued interest and cooperation.

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Letters to the Editor

Psychiatrists, state hospitals, and civil rights

To the Editor: The article, "Psychiatrists, State Hospitals, and Civil Rights"* in your November, 1980, issue raises significant questions, I believe, about responsibility of medical journals toward flagrantly unsupported content of published articles. In this instance, Dr. Many, in the midst of an uninformed, if well-intentioned support of mental patients' civil rights, goes on to describe our State Hospitals as . . .

> a sanctuary, not just for the welfare patient, but also for the welfare physician; these are physicians who frequently are unable to gain employment elsewhere, who have failed in private practice, who are unemployable as a result of national barriers or state restrictions on the free commerce of physicians (both foreign nationals and intrastate "psychiatrists"), who are looking for less responsibility, more security, a pension retirement plan, and any of a number of state-related job and fringe benefits that rule out the highly motivated and competent physician in favor of those already in a holding pattern or with downward mobility.

The physicians which Dr. Many describes are, in fact, licensed by New York State (only approximately 150 of 865 have limited permits). Of the 715 who have full licenses, approximately 350 are certified by the American Board of Psychiatry and Neurology. Many are nationally distinguished physicians, some of international renown.

Most alarming is the arbitrary designation of public service physicians as inherently inferior to their privately-oriented, ostensibly more socially acceptable colleagues. I deny and deplore this designation, and request that your Journal communicate the data I have supplied.

There is no longer any need to exhort physicians concerning their responsibility to the underserved populations in our society. There is a need, however, to begin bestowing some commendation on those physicians who have already chosen to fully accept that responsibility.

JAMES A. PREVOST, M.D., *COMMISSIONER*
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Psychiatrists, State hospitals, and civil rights*

To the Editor: The article by Seth E. Many, M.D., in the November, 1980, issue of your journal entitled "Psychiatrists, State hospitals, and civil rights," does a disservice to the State hospitals, the psychiatrists working in them, and to the patients.

Dr. Many states that the physicians in the State hospitals have failed in private practice, are unemployable, look for less responsibility and more security, and that highly motivated and competent physicians are ruled out. This demeans the physicians in the State system, many of whom are members of our Association. These psychiatrists have my admiration for working in difficult circumstances, with generally the most disturbed group of patients. This article might make it more difficult to recruit and retain physicians for the State system.

Information which I have obtained from the New York State Office of Mental Health—which presumably was available to Dr. Many—is that over one half of the psychiatrists employed are Board certified. This compares well with the national average. Of the 865 psychiatrists in the State system, 715 are fully licensed by the State of New York and the other 150 have limited licenses. This surely does not correspond to the picture of the State hospital psychiatrist as described by Dr. Many.

Dr. Many asked for the elevation of standards for psychiatrists working in the State hospitals. I wonder how this article leads to that desirable end.

On behalf of the New York State Psychiatric Association's 4,000 members, I would like to state that we strive constantly towards our primary goal—improving the care of all patients we serve. We welcome the conjoint efforts of our medical colleagues in this ongoing constructive endeavor.

HARVEY BLUESTONE, M.D., *President*
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New York, N.Y. 10021

Dr. Many's reply

To the Editor: The topic of my paper (Psychiatrists, State hospitals, and civil rights) was clearly spelled out: ". . . a focus on the attitudes, and the reason for the attitudes, that permit and encourage the destruction of civil rights in the hospital setting." Notwithstanding, the factual issues raised by Dr. Bluestone deserve comment.

Bluestone: "Of the 865 psychiatrists in the (N.Y.) State system . . ."

Many: In fact there are 1,035 psychiatric positions. One hundred ninety-two are vacant. That is, one place is vacant for each four psychiatrists employed. Given low median salary, poor morale, staggering paperwork, and so forth, what is the real payoff?
Answer: Steady State employment, pension plans, limited responsibility, malpractice protection, and "perks," and so forth.

Bluestone: ". . . 715 (psychiatrists) are fully licensed by the State of N.Y. and the other 150 have limited licenses."

Many: A limited license is insufficient to permit psychiatric practice in the general population. Why is this experiment permitted on

continued on page 816

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* Many, S. E.: Psychiatrists, state hospitals, and civil rights, New York State J. Med. 80: 1873 (Nov.) 1980.

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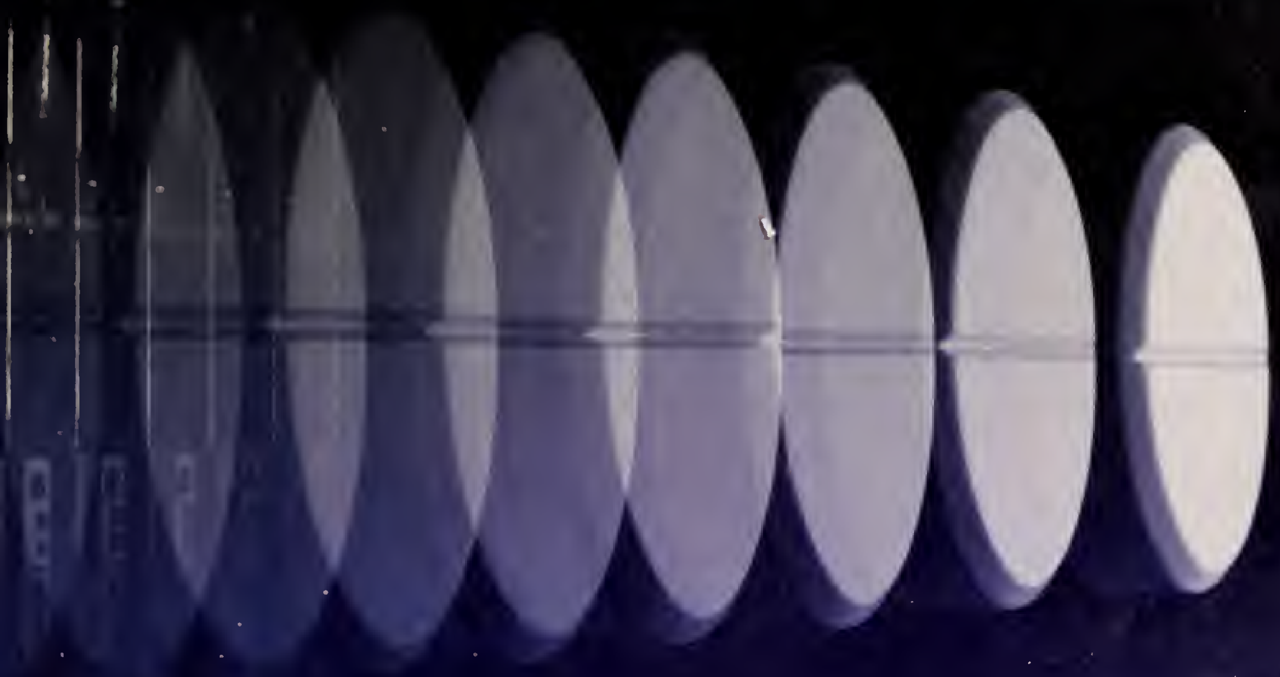

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Abstracts in Interlingua

Vianna, N. J., Maslowsky, J., Roberts, S., Spellman, G., e Patton, R. B.: Mesothelioma maligne; typos epidemiologic in le Stato de Nove York, **New York State J Med.** 81: 735 (April) 1981.

In un studio del mesothelioma maligne in le Stato de Nove York, excludente le Citate de Nove York, suggere se que non ha un major frequentia de iste morbo inter 1973 e 1978. Le proportion plus elevate de iste tumor esseva observate in 6 Condatos rural; le agricultores, le mineros de talcum e le laborantes de papiro esseva le personas del occupation plus communmente involvite. Altere Condatos altemente industrialisate e proxime al routes fluvial etiam habeva un plus elevate incidentia que in le Stato considerate integralmente.

Cooperman, A. M.: Tumores endocrine del pancreas, **New York State J. Med.** 81: 739 (April) 1981.

Le tumores endocrine functionante del pancreas include le syndrome de diarrhea acquose, le insulinoma, le glucagonoma e le somatostatinoma. Le tumores pote esser benigne o maligne, unic o multiple. Le gastrinoma es diagosticate plus frequentemente debite al major uso del radioimmunoessaio del gastrina, e del tests del infusion de secretina. Ha un controversia supra le therapia optime. Mediante le receptores antagoniste del histamina, le necessitate, al minis initialmente, del chirurgia es diminuite e le gastrectomia total pote esser evitate in casos selecte. Le initiation del hyperinsulinismo pote esser abrupte o insidiose e le symptomas varie desde abnormalitates del conducto al coma. Le progressos diagnostic, particularmente le venographia transhepatic e transportal, tomante monstras del sanguine venose splenic adjuta a localisar le insulinomas parve e permite le resection segmentari precise del pancreas. Le syndrome classic de diarrhea acquose es characterisate per hypokalemia, achlorhydria e elimination de 4 a 6 litros de liquido diarrheic al die, relationate con tumores pancreatic o extrapancreatic. Ha formas leve, e le frequentia exacte non es cognoscite. Minus frequentemente es observate le glucagonoma que es characterisate per diabetes mellitus, eruption erythematose necrolytic, e tumores pancreatic e etiam le somatostatinoma, un peptido que modula le secretion de insulina e glucagon. Le glucagonoma ha un elevate frequentia de malignitate, e le resectiones pancreatic es frequentemente palliative.

Cacace, A. T.: Evalutation audiologic del neuroma acoustic, **New York State J. Med.** 81: 744 (April) 1981.

Le evalutation audiologic es un parte essential del examination oto-neurologic in patientes in que un tumor acoustic es suspectate. Iste reporto es un revision historic e perspective del tests audiologic plus nove, e etiam del strategia que ha meliorate considerabilemente le precision pro differentiar le sito del lesion intra le systema auditive. Le symptomas auditive classic del tumores acoustic include: tinnitus, peridita del audition unilateral o asymmetric, discrimination disproportionatemente deficiente

continued on page 730

Abstracts

Vianna, N. J., Maslowsky, J., Roberts, S., Spellman, G., and Patton, R. B.: Malignant mesothelioma; epidemiologic patterns in New York State, **New York State J. Med.** 81: 735 (Apr.) 1981.

A study of malignant mesothelioma in New York State, excluding New York City, suggests that there was no increase in the incidence of disease from 1973 through 1978. The highest rates for this tumor were observed in 6 rural counties, and farmers, talc miners, and paper workers were the most common occupations involved. Certain other highly industrialized counties in close proximity to major waterways also had higher incidence rates than the State as a whole.

Cooperman, A. M.: Endocrine tumors of the pancreas, **New York State J. Med.** 81: 739 (Apr.) 1981.

Functioning endocrine tumors of the pancreas include the watery diarrhea syndrome, insulinoma, glucagonoma, and somatostatinoma. The tumors may be benign or malignant, single, or multiple. Gastrinoma is diagnosed more frequently because of wider use of the gastrin radioimmunoassay and secretin infusion tests. Controversy over optimal therapy exists. With histamine receptor antagonists the need, at least initially, for surgery is diminished and total gastrectomy can be avoided in select cases. The onset of hyperinsulinism may be abrupt or insidious and symptoms range from behavioral abnormalities to coma. Diagnostic advances, particularly transhepatic, transportal venography with sampling of splenic vein blood helps to localize small insulinomas and permits accurate segmental pancreatic resection. The classic watery diarrhea syndrome is characterized by hypokalemia, achlorhydria 4 to 6 liters of diarrhea per day, and pancreatic and extrapancreatic tumors. Milder forms exist and the exact incidence is unknown. Much less common are glucagonoma, characterized by diabetes mellitus, a necrolytic erythematous rash, and pancreatic tumors as well as somatostatinoma, a peptide which modulates insulin and glucagon secretion. Glucagonoma has a high incidence of malignancy and resections are frequently palliative.

Cacace, A. T.: Audiological evaluation of acoustic neuroma, **New York State J. Med.** 81: 744 (Apr.) 1981.

Audiological evaluation is an essential part of the otoneurological workup in patients with suspected acoustic tumors. This report will provide an historical review and a perspective focusing on newer audiological tests and strategies that have improved considerably the precision in differentiating site of lesion within the auditory system. The classical auditory symptoms associated with acoustic tumors include: tinnitus and unilateral or asymmetrical hearing loss, disproportionately poor speech discrimination or performance intensity-phonetically balanced roll-over, abnormal tone decay, type III or type IV Bekesy tracings, normal temporal summation, and lack of recruitment or decruitment. Absent acoustic reflexes, positive reflex decay, abnormal acoustic reflex latency measurements, and abnormal brainstem auditory evoked potentials are highly sensitive newer modes of testing and are advocated as tests for early detection of these lesions. Early detection would increase the surgeon's ability to conserve hearing and decrease the morbidity of surgery.

O'Connell, C. J., and Hamilton, R.: Gram-negative rod infections; II. *Acinetobacter* infections in general hospital, **New York State J. Med.** 81: 750 (Apr.) 1981.

Isolates of *Acinetobacter calcoaceticus* (formerly classed as *Mima* or *Herellea*) were surveyed over a two-year period in a general hospital. The number of *Acinetobacter* strains was about one fourth that of *Klebsiella* organisms isolated during the same time period in the first part of this study. The organisms generally appeared as colonies in instrumented urinary and respiratory tracts without significant associated disease. However, true *Acinetobacter* infection did occur as (1) community-acquired respiratory infections in young children and (2) along with other organisms in purulent wound infections following head and neck surgery in adults. No antibiotic agent we tested was uniformly successful in inhibiting *Acinetobacter*, but carbenicillin and kanamycin were most consistently active. Subspecies *lwoffi* was generally more sensitive than *anitratus*. Colistin, found by others to be very active against *Acinetobacter*, was not tested in this series.

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del linguage o del intensitate del performatia, tono abnormal deficiente, trasatos Bekesy typos III o IV, summation normal temporal e absentia de recrutemento o decrutemento. La absentia de reflexos acoustic, deficientia de reflexos positive, mensuras del latentia del reflexos acoustic abnormal, e le potential abnormal evocate del segmento auditory del pedunculo cerebral es le plus nove methodos altemente sensitive per le examination acoustic, e es recommendate como tests per le detection temprane de iste lesiones. Le detection temprane augmenta le abilitate del chirurgos pro conservar le audition e disminuer le morbiditate del chirurgia.

O'Connell, C. J., e Hamilton, R.: Infectiones ab bacillos Gram-negative. II. Infectiones ab *Acinetobacter* in un Hospital General, **New York State J. Med. 81:** 750 (April) 1981.

Le species isolate de *Acinetobacter calcoaceticus* (ante classificate como *Mima* o *Herellea*) esseva studiate durante un periodo de 2 annos in un Hospital General. Le numero de species de *Acinetobacter* esseva circa de un quarto del species de *Klebsiella* isolate durante le mesme periodo, isto intra le prime parte de iste studio. Le microorganismos presentava se como colonias in le tractos urinari e respiratori examinate con instrumentos, mais sin morbo associate. Nonobstante, le ver infection ab *Acinetobacter* presentava se como (1) infectiones respiratori acquirite in le communitate per pueros juvene, e (2) juncto con altere microorganismos in infectiones purulente de feritas depost chirurgia del capite e collo in adultos. Omne antibioticos testite non esseva uniformemente successose pro inhibir le *Acinetobacter;* nonobstante, le carbenicillina e le kanamycina esseva uniformemente plus active. Le sub-species *lwoffi* esseva, in general, plus sensitive que le *anitratus.* Le colistina, que altere investigatores trovava multe active contra le *Acinetobacter*, non esseva essaiate in iste studio.

Translated by Eduardo I. Juliet, M.D.

Correction

The Journal regrets that in the December, 1980, issue, **Table IV** on page 1952 (Stein, H. D.: Penetrating injuries to the duodenum, **80:** 1950 (Dec.) 1980)) in column under the heading "Number of Patients" the fourth figure should be 1 *not* 11.

TABLE IV. Association of mortality rate with other injuries

Number	Number of Patients	Mortality Rate (percent)
Vascular injuries		
0	29	7
1	10	30
2	6	67
3	1	0
Organs injured (excluding vessels)		
1	5	20
2	15	7
3	12	17
4	7	14
5	4	75
6	0	0
7	2	50
8	1	0

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O tempore! O mores!

Has our society suffered a decline in personal integrity? For some Americans, dishonesty has become a way of life, or at least almost something to be expected. Children cheat on tests. Politicans take bribes. Businessmen evade taxes. Physicians pad their bills. These actions threaten the American way of life and, in particular, our professionalism and ethics. What is professionalism? It is the following of an art. It is nothing more than common sense, courtesy and the principles taught us by our forebears in medicine, especially the principle of the *primacy of the patient.* What are ethics? Professionalism seasoned by morality!

Physicians have taken an oath that goes back more than 2,000 years, an oath as fundamental to our profession as breath is to life. We have demanded of ourselves standards and principles over and above those of all other societies activities and functions because of the very sensitive and intimate issues we address. Medicine is not an industry!

But what has happened to this sacrosanct oath and the principles that have been instilled that has made us stand out over the centuries? We hear of a small percentage of physicians illegally fractionalizing or compartmentalizing their bills, doctoring insurance reports, increasing bills to insurance companies to get "regular fees," or fraud in Medicaid and Medicare.

These physicians sacrifice their professionalism and ethical standards for money. A physician who is seen cheating an insurance company cannot expect to maintain credibility with patients. We cannot adhere to a double standard of honesty. In the past we were trusted, believed, almost venerated. Why—because we kept ourselves a profession and not a business. We were dealing in life and death, the most intimate problems of human beings—not merchandising—and we cannot survive as a profession if we try to mix these two. Making money can't be a primary goal; materialism destroys the most meaningful and cherished human values and the basic principles of medicine. It will absolutely destroy our freedom as professionals. We, as physicians, have always been interested in someone else, the patient, rather than ourselves, and the selfish me-for-me principle was never considered. If the dishonest behavior of a few physicians leaves an ethical vacuum, we are obliged to fill it or someone else may.

Imagine being on a witness stand before a judge and jury and the prosecuting attorney asks you: Do you, to your best ability and judgment consider the benefit of your patient first and foremost, and abstain from whatever is deleterious and mischievous in whatever homes you enter? Do you practice for the benefit of the sick? Do you have a love for the art of medicine and for your fellow man? Do you see in the sufferer the total person? Do you pledge to consecrate your life to the service of humanity? Do you practice your profession with conscience and dignity? Is the health and welfare of your patient your first consideration? Are your colleagues truly your brothers and sisters? Do you refuse to let religion, race, politics, or social standing intervene between duty and patient? Can you plead to all of these and say, "Yes, I am a physician?"

It is imperative that we physicians maintain honesty, decency, integrity, and dignity, but even this is not enough! We must also be prepared to challenge and expose the small minority who do not adhere to the ethical standards of medicine, and who threaten to destroy our professionalism, and our profession with it.

Professionalism is an art and as Hippocrates said:

"Ars Longa, Vita Brevis."

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Malignant Mesothelioma

Epidemiologic patterns in New York State

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A study of malignant mesothelioma in New York State, excluding New York City, suggests that there was no increase in the incidence of disease from 1973 through 1978. The highest rates for this tumor were observed in 6 rural counties, and farmers, talc miners, and paper workers were the most common occupations involved. Certain other highly industrialized counties in close proximity to major waterways also had higher incidence rates than the State as a whole.

The association between asbestos exposure and malignant mesothelioma is well established, particularly among certain occupational groups such as asbestos miners, insulation, shipyard, and textile workers.[1] Nonoccupational exposure to this mineral might also be an important factor.[2-4] Although this highly fatal tumor must be considered a rare manifestation of exposure to a relatively common agent, the spectrum of asbestos-associated diseases include pneumoconiosis, lung cancer (in smokers), and possibly gastrointestinal cancer.[5] Thus, malignant mesothelioma represents an important signal lesion—a rare disease caused by an agent which is etiologically associated with more common disorders. This report examines the geographic distribution of malignant mesothelioma in New York State, with particular emphasis on the epidemiologic characteristics of those areas with the highest incidence rates.

Methods

Incidence study. This investigation included all cases of histologically confirmed malignant mesothelioma (histology code 905) diagnosed in New York State, excluding New York City, reported to the tumor registry of the Cancer Control Bureau, New York State Department of Health, from 1973 through 1978. Patients from New York City were excluded because cancer reporting from this area was not instituted until 1973, and at present reported investigation is incomplete. Using population estimates for the year 1975,* ten-year age-specific incidence rates and sex ratios (male rate to female rate) were calculated for all patients reported with this disorder during the six-year study period, and separately for the pleural and peritoneal sites. The same denominator was used to calculate an average incidence rate for the State (excluding New York City), and for each county in the study area. Counties with high rates were defined as those with twice the average State rate. Time trends were also calculated using yearly population estimates from 1973 through 1978.*

Descriptive study. The first phase of this investigation attempted to obtain occupational information from death certificates on all male patients included in the incidence study who died from 1973 through the present in New York State, excluding New York City. Asbestos-related occupations were defined as those listed in "Work is Dangerous to Your Health"[6] and by the National Institute of Occupational Safety and Health.[7] Using this information, the occupations of male patients who died of malignant mesothelioma were categorized as asbestos-related or not.

For male and female mesothelioma patients diagnosed and reported from 1968 through 1978 in counties with high rates, interviews were conducted with either the patient or, in the event of death, a first-degree relative. Detailed information was obtained on both occupational histories and other potential sources of asbestos exposure. Indirect exposure was defined as residing in a household prior to diagnosis with a spouse, parent, or other family member who worked in an asbestos-related occupation.

Results

Incidence study. There were a total of 288 patients (193 males and 95 females) diagnosed in New York State (excluding New York City) and reported

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* Office of Biostatistics, State of New York Department of Health.

TABLE I. Incidence rates and sex ratios by site in New York State (1973 through 1978)*

	Males		Females		
Site	Number of Patients	Rate per 100,000 Population	Number of Patients	Rate per 100,000 Population	Sex Ratio†
Pleura	164	0.54	57	0.17	3.2
Peritoneum	26	0.09	35	0.11	0.8
All sites	193	0.63	95	0.29	2.2

* Includes 3 males, 3 females with site unknown. Excluding New York City.

† Male rate to female rate, 1975 population estimate (Office of Biostatistics, New York State Health Department).

to the tumor registry from 1973 through 1978. Evaluation of annual incidence rates during the six-year study period did not indicate any significant increase in trend. Rates fluctuated from 0.37 to 0.52, and the over-all average incidence for this disease was 0.45 per 100,000 population. Rates generally increased with age, peaking for both sexes in the 75-through-84-year age group (total 2.19 per 100,000). Among males the peak occurred in the 65-through-74 age group (3.68 per 100,000) and among females the 75-through-84 age group (1.44 per 100,000). Table I indicates the over-all incidence and sex ratios for study patients by site. County rates varied from a high of 1.52 per 100,000 population in Seneca County to 0.00 in 11 counties (Fig. 1). Six counties (Seneca, Livingston, Steuben, Jefferson, Schoharie, and Schuyler) had rates at least twice that of the over-all rate for New York State (excluding New York City). Thirty-six counties had average incidence rates below that observed for the State. Certain highly populated industrialized counties (such as Erie, Nassau, Suffolk) had average incidence rates slightly higher (range: 0.47 to 0.89 per 100,000 population) than that observed for New York State, excluding New

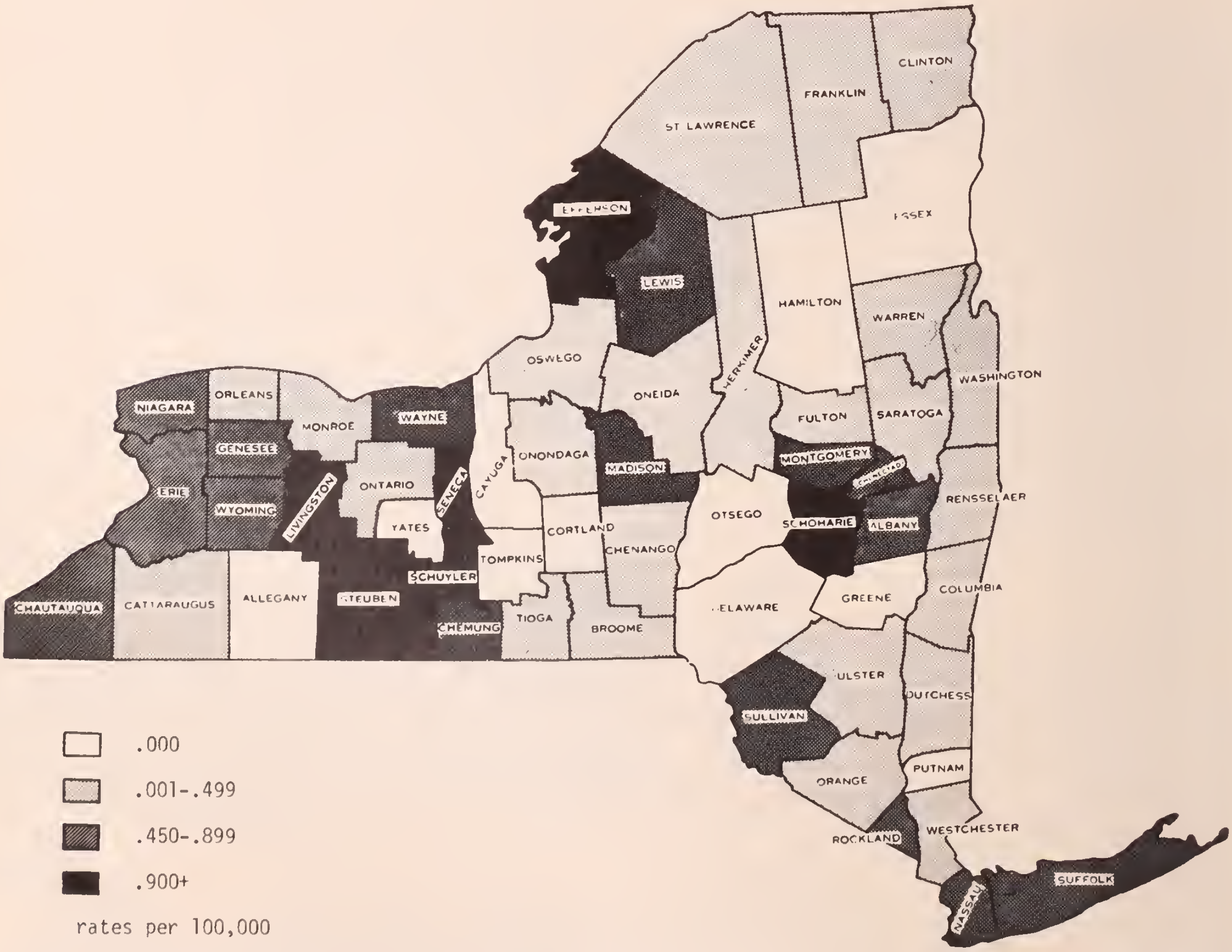

FIGURE 1. Average incidence rates for malignant mesothelioma in counties of New York State (excluding New York City) from 1973 through 1978.

York City, whereas others (such as Westchester and Onondaga) had lower rates (range: 0.31 to 0.40 per 100,000 population).

Descriptive study. Of 193 male patients diagnosed with malignant mesothelioma from 1973 through 1978, death certificates were obtained for 170 (89.0 percent) of the cases. Only 67 of these patients (39.4 percent) had well established asbestos-related occupations listed on their death certificates. Thirty-nine (58.2 percent) of these patients worked in construction, electrical work, and heating. The remaining 28 occupations included paper workers, printers, farmers, and longshoremen.

A potential source of asbestos exposure was documented for 24 of the 31 (77.4 percent) patients (22 males and 9 females) diagnosed with malignant mesothelioma in the six counties with high incidence rates. Fifteen of the 17 patients with direct exposure were males, 7 patients were farmers, 4 patients worked in talc mines, and 3 worked in the paper industry. These were the major occupations. Five males worked in more than one asbestos-related industry at different times. The two females in this group were talc workers. Six of the 7 patients with potential indirect exposure were females. The spouses or other family members residing in the same household of five females were farmers, and one was a fireman. Ten of the 24 patients (41.7 percent) had the opportunity for both direct and indirect exposure.

Comment

Although the industrial use of asbestos has greatly decreased in recent years, there has been growing concern that the frequency of malignant mesothelioma might be increasing.[8] This is due to the widespread prevalence of this mineral in the environment, and the evidence suggesting that large cohorts of workers might have been exposed during the World War II period (for example shipyard workers).[1,9] Our results suggest that there was no apparent increase in the incidence of this disease from 1973 through 1978. Although incomplete assessment is potentially a major problem confronting all studies of malignant mesothelioma, we have no reason to believe variability in the diagnosis and/or reporting of this entity during the six-year study period are responsible for our findings. Our observation that the highest rates for this disorder were essentially diagnosed in counties without university medical centers supports the concept that the clinical and pathologic recognition of mesothelioma has probably improved during the last decade.

Our findings suggest that the epidemiologic patterns of malignant mesothelioma differ in various sections of New York State. Highly populated, industrialized areas (such as Erie, Nassau, and Suffolk) in close proximity to major waterways had higher average incidence rates than the State, excluding New York City, as a whole. The major occupational groups involved were construction and electrical-heating system workers. These observations are consistent with the evidence suggesting that the incidence of this tumor is extremely high for insulators among those who work or live in cities with shipyards, and among those who work or live in cities with large asbestos plants. However, the highest rates in our study were found in six generally rural counties (Fig. 1), and in these areas farmers, talc miners, and paper workers were the most common occupational groups involved. Farmers have two potential sources of exposure: construction and maintenance work,[6] and the natural asbestos content of soils in certain areas.[10] Certain talc mines, particularly those located in St. Lawrence County, contain as much as 50 percent or more tremolite, an amphibole type of asbestos material.[11] This might explain the observation that talc fibrosis resembles asbestosis more than silicosis.[12] Finally, asbestos-containing rollers are used in the production of paper.[13]

Other observations in our study raise several important considerations. There is a wide variation in the reported incidence of asbestos exposure in patients with mesothelioma.[14-16] The possibility that this might be explained on the basis of inadequate occupational histories is supported by our observations. Thus, the occupations listed on death certificates of male patients suggested that only 39.4 percent had well-established asbestos exposure. This contrasts with 77.4 percent when detailed interviews were conducted. The crocidolite type of asbestos has been most frequently associated with malignant mesothelioma.[17] Our results support the suggestion that exposure to other types of this mineral, such as chrysotile and/or amosite in insulators, and tremolite in talc workers, might be sufficient to induce this tumor.[1] As previous investigations have suggested, more subtle indirect, nonoccupational exposure might be important, especially in females.[4] In certain instances, patients with this disorder have had both direct and indirect exposure to asbestos. Although we found no instances of familial mesothelioma in this investigation, recent reports[4,18] have raised the possibility that genetic factors might also play a role in the etiology of this disorder. All of these factors should be considered in evaluating the patient with malignant mesothelioma.

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Rubens paintings reveal artist had arthritis

A study of the paintings of Peter Paul Rubens shows that the artist probably suffered from rheumatoid arthritis in his hands, says a report in the February 6 Journal of the American Medical Association.

This means, says a study group of Belgian and American physicians, that rheumatoid arthritis existed in man at least 200 years earlier than had previously been thought.

Rubens lived from 1577 to 1640, and was a successful painter during much of his lifetime. Study of his paintings through the years shows progressive rheumatoid arthritis that resulted in twisted fingers and swollen wrist, says George E. Ehrlich, M.D., of Hahnemann Medical College and Hospital, Philadelphia.

Traces of osteoarthritis have been found in the remains of dinosaurs and early man. But there had been no indication that rheumatoid arthritis was in evidence prior to the 19th century.

Dr. Ehrlich and his Belgian colleagues at the University of Brussels examined an international exhibition in Antwerp of the paintings of Rubens. A painting from 1609, *St. Matthew*, features a swelling of joints of two fingers. Two paintings, *The Drunken Sleeping Satyr* (1610) and *Suzanna and the Elders* (1614) continue to show swollen fingers and also show a swollen wrist.

Through the years the arthritis portrayed in the Rubens paintings became steadily more severe, indicating the worsening of the condition as the artist grew older, Dr. Ehrlich says.

The study established that the artist likely introduced his own hands as models in many of the paintings. Other artists have been known to change painting style because of the ravages of the disease.

Endocrine Tumors of the Pancreas

A condensed summary

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Functioning endocrine tumors of the pancreas include the watery diarrhea syndrome, insulinoma, glucagonoma, and somatostatinoma. The tumors may be benign or malignant, single, or multiple. Gastrinoma is diagnosed more frequently because of wider use of the gastrin radioimmunoassay and secretin infusion tests. Controversy over optimal therapy exists. With histamine receptor antagonists the need, at least initially, for surgery is diminished and total gastrectomy can be avoided in select cases. The onset of hyperinsulinism may be abrupt or insidious and symptoms range from behavioral abnormalities to coma. Diagnostic advances, particularly transhepatic, transportal venography with sampling of splenic vein blood helps to localize small insulinomas and permits accurate segmental pancreatic resection. The classic watery diarrhea syndrome is characterized by hypokalemia, achlorhydria 4 to 6 liters of diarrhea per day, and pancreatic or extrapancreatic tumors. Milder forms exist and the exact incidence is unknown. Much less common are glucagonoma, characterized by diabetes mellitus, a necrolytic erythematous rash, and pancreatic tumors as well as somatostatinoma, a peptide which modulates insulin and glucagon secretion. Glucagonoma has a high incidence of malignancy and resections are frequently palliative.

Since the gastrin molecule was isolated in 1964 developments in hormone and peptide physiology from the pancreas and gastrointestinal tract have been so rapid that publications appear at an explosive rate. Gastrin, secretin, and cholecystokinin-pancreozymin are hormones present in concentrations that allow physiologic reactions to occur. There are many other peptides or "candidate hormones" present in concentrations that allow biologic reactions to occur. But it is still unknown whether the concentrations present in man allow for the occurrence of these reactions.

There is a common stem cell from which these peptides are synthesized and released. This cell originated thousands of years ago when precursors of hormones and peptides existed. The cell has several common histochemical characteristics which lend themselves to the acronym "APUD" cell. These include a high concentration of amines, the ability to take up amine precursors, a high concentration of the amino acid decarboxylase, as well as storage granules. To date there are more than 25 hormones and peptides isolated from APUD cells of the intestine and pancreas, and the tumors associated with excess production of these substances are known as APUDOMAS.

Some clinical syndromes caused by excess production of one or more hormones are traced to the pancreas. Others are less specific and are located in the pancreas, intestine, or other somatic areas. The former include insulinoma, somatastinoma, gastrinoma, glucagonoma, and vipoma. This paper will briefly review the endocrine tumors of the pancreas.

Gastrinoma

Gastrin was first investigated in the early 1900s by Edkins. After the discovery of secretin, Edkins postulated the existence of the "gastric secretin" (gastrin). In 1964 the hormone was isolated in pure form, and with the development of radioimmunoassay, experimental and clinical studies were undertaken. Gastrin exists in multiple forms, including a G-17 molecule (little gastrin), a G-13 molecule (minigastrin), a G-35 molecule (big gastrin), and at least two other larger forms. At least three actions of gastrin are physiologic. They are (1) increased secretion of acid, (2) pepsin, and (3) trophic effects on the stomach. Other actions occur when gastrin is present in excessive concentrations. These affect the gastroesophageal junction, gastric emptying enzyme activity, small bowel motility and secretion, and pancreatic secretion.

Diagnosis. The gastrin assay has been of great value in detecting the Zollinger-Ellison syndrome or gastrinoma. When first reported in 1955, a triad of recurrent ulceration, gastric hypersecretion, and nonbeta islet cell tumors were described in two patients who underwent multiple gastric operations for duodenal ulcer disease. Within the last seven years the symptoms have changed. Patients should now be suspected and diagnosed before the first ulcer operation. Since 20 percent of patients with Zollinger-Ellison syndrome have had ulcer symptoms

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* By invitation.

present for five or more years the course may be insidious. The classic presenting symptom not only implies that recurrent ulcers are present but that the disease always seems to be very severe. This is incorrect. Many patients with gastrinoma appear to have typical, duodenal ulcer disease with pain relieved by antacids. The availability of gastrin determinations allows for gastrin measurements prior to ulcer surgery. At times this creates problems. If serum gastrin is elevated but not diagnostic, and uncertainty about a gastrinoma exists, operations may be delayed. This is balanced by the possible increased morbidity and mortality rates due to an inappropriate operation for a neglected gastrinoma. In this situation stimulation tests using a protein meal, secretin, or calcium may be helpful. Secretin stimulation is particularly attractive because the test is brief and well tolerated. After a secretin infusion serum gastrin should rise at least 110 pg. over baseline values (normal value is 300 pg.) if gastrinoma is present. The calcium test takes longer, three hours, and is less reliable. A protein meal followed by an increase in serum gastrin, is due to an overactive or sensitive antrum (G cell hyperplasia) and responds to antrectomy with or without vagotomy.

Treatment. The treatment for gastrinoma is controversial. Previous reports indicating a high mortality rate when less than total gastrectomy was done or when pancreatic tumors were excised are now balanced by enthusiasm for histamine receptor antagonists. These agents have altered treatment for many patients, and have supplanted total gastrectomy as the initial treatment of choice in many institutions. Operations other than total gastrectomy were not recommended because of high recurrence rates due to multiple benign pancreatic lesions or metastatic lesions producing gastrin. Recent successes with vagotomy and antrectomy, or vagotomy and drainage combined with histamine receptor antagonists are reported. Others favor preliminary arteriography or abdominal exploration to determine whether a solitary gastrin producing lesion is present. Avoiding total gastrectomy must still not be considered standard treatment. If total gastrectomy is performed, diversion of bile from the esophagus by a Roux-en-Y technique prevents reflux esophagitis.

Insulinoma

Excess secretin of insulin may yield a constellation of abrupt or insidious neurologic and vasomotor symptoms. Described 50 years ago, insulinoma is an uncommon lesion and these tumors, when present, are almost always in the pancreas. Hypoglycemic symptoms cause central nervous system changes; for example, coma, stupor, inappropriate behavior, drowsiness, fatigue, or excess sympathetic release like sweating, vasodilation, tachycardia, and palpitations. Despite these well-publicized symptom presentations the diagnosis is still frequently delayed or overlooked. The diagnostic tests are relatively simple. Basal or fasting hypoglycemia is the hallmark of diagnosis. A fast of up to 72 hours or exercise will induce hypoglycemia and symptoms. The onset of symptoms varies within the level and rate of fall of glucose. Surprisingly low levels of glucose are tolerated without symptoms but glucose levels less than 40 mg per deciliter usually bring on symptoms.

Diagnostic procedures. Procedures such as stimulation tests have largely been abandoned because they may be inaccurate and time consuming. Most recently a fish insulin suppression test has been utilized. In this test, fish insulin is given to induce hypoglycemia while simultaneous measurement of serum insulin is done. Assayed insulin is suppressed in normal individuals but remains elevated in insulinoma patients. Assay of serum insulin has been a significant advance in the diagnosis of insulinoma. Several molecular forms including proinsulin, insulin, and C-peptide may be measured. The insulin molecule is synthesized as a large molecule (proinsulin) and broken down to smaller forms. With some partially differentiated insulinomas proinsulin is elevated. The C-peptide is a connecting molecule between the two insulin chains. This is always of endogenous origin and when elevated indicates endogenous hyperinsulinism, which is helpful in excluding factitious hypoglycemia as a condition. The combination of elevated or normal serum insulin with hypoglycemia should establish the diagnoses in all patients. It is possible for insulin levels to be normal or only slightly elevated in hyperinsulinism but the value, if normal, will be disproportionately high relative to the levels of glucose.

The use of computed tomography scans or ultrasound has occasionally detected an insulin-producing tumor but since most tumors are less than 1.5 to 2 cm. in size they will not be seen unless highlighted by surrounding peripancreatic fat. Selective angiography may specifically outline a tumor, however, the accuracy varies from 40 to 90 percent. Surprisingly, large tumors can be missed while smaller tumors accurately localized. This probably depends on the tumor vascularity which, in general, tends to be increased in insulinomas.

Careful mobilization of the duodenum and under-surface of the pancreas during surgery will allow bimanual palpation and intra-operative localization. In general, enucleation of the islet cell tumor rather than pancreatic resection is advised. These tumors tend to be benign in 90 percent of cases. Malignancy is established with documentation of metastasis rather than histologic appearance.

Solitary benign pancreatic tumors account for over 80 percent of pathologic lesions; they are usually between 0.5 and 2 cm. in size. Much less frequently nesidioblastosis and islet cell hyperplasia are found, while multiple lesions may be present in up to 10 percent of cases.

Surgical treatment In 80 to 90 percent of patients cure follows surgical excision of the solitary pancreatic lesion. In 7 percent of patients a tumor may not be localized and in an additional 7 percent multiple lesions may be present. If the anticipated tumor is not found a distal pancreatic resection with monitoring of blood glucose may be performed. Today, a sampling of splenic vein blood may aid accurate localization of the malignancy and a major resection can be avoided at the time of initial operation.

Watery diarrhea syndrome

Excess pancreatic and intestinal secretions or decreased intestinal absorption of these secretions causing watery diarrhea characterize the syndrome of pancreatic cholera or the watery diarrhea syndrome. This unusual entity may be caused by pancreatic or extra-pancreatic tumors. One or more peptides or hormones produced by a single tumor is responsible for the clinical manifestations of this condition. This, too, is a spectrum of a disease and symptoms ranging from mild to fulminant diarrhea.

Diagnosis. This diagnosis will be considered in patients who have large quantities of diarrhea without an antecedent history of colitis or other bowel disease. The diagnosis may be difficult to establish, but routine tests should exclude the more common causes of diarrhea. An angiogram may exclude pancreatic, intra-abdominal, or retroperitoneal tumors. Should this be a nondiagnostic serum it should be assayed for peptides associated with this syndrome. These include secretin, vasoactive intestinal polypeptide, glucagon, prostaglandin, secretin, and pancreatic polypeptide. If any are elevated and a tumor not localized preoperatively one has a choice of advising exploration, medical treatment, or transhepatic sampling of the splenic and superior mesenteric veins. The diarrhea is caused by excess pancreatic secretions, excess intestinal secretions, or decreased small intestinal absorption of fluids and electrolytes.

Treatment. Treatment depends on the pathology but in general consists of resecting the neoplasm when possible. Since results of radioimmunoassay are not immediately available, symptomatic attempts at medical or nonoperative treatment may be utilized. These include steroids, aspirin, and indomethacin to inhibit prostaglandin synthesis and liberal use of parenteral nutrition. Should a discrete tumor be found it is then that enucleation or resection is advised. For a malignant tumor with metastasis the decision as to what to do with the primary tumor may be more difficult. When a lesion is not found operative decisions also become complex. While islet cell hyperplasia has been reported in some patients, blind subtotal pancreatic resection cannot be generally recommended. In these instances I believe one should resect a minimal amount of distal pancreas for tissue assay and microscopic diagnoses. Samples from the splenic vein may provide hormone assays to determine if an increased secretion of any of these peptides occur.

Somatostatin

Excess production of the peptide somatostatin results in a number of abnormalities. By serendipity its clinical correlation with pancreatic tumors was described in a patient with mild adult onset diabetes who, at the time of cholecystectomy, had an islet-cell tumor of the pancreas. The lesion was subsequently resected seven years later, found to be secreting somatostatin, and the diabetes improved. There are multiple functions and properties of somatostatin. It is the inhibitory hormone of the gastrointestinal tract and may diminish secretions from multiple sites. As only three or four cases of somatostinoma have been reported, a characteristic clinical syndrome is not yet available.

Glucagonoma

An unusual syndrome produced by the excess production of pancreatic glucagon has been infrequently reported. Its symptoms include a peculiar necrolytic erythematous rash, signficant weight loss due to the catabolic affects glucagon, and diabetes mellitus as the diagnostic triad. This pathology is usually due to a malignant lesion, although benign pancreatic tumors cured by resection have also been described.

Conclusions

A summary of some endocrine tumors of the pancreas caused by excess production of one or more peptides has been reviewed. With the continued discovery of new hormones in the gastrointestinal tract, it will not be surprising if new syndromes caused by excess secretion, or growth of neoplastic cells producing these peptides, are reported.

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Nation may face rationing of life saving kidney dialysis

As the nation becomes more and more concerned about the costs of health care, the dilemma arises of how best to utilize limited funds in caring for individuals whose kidneys have failed.

Society may be called on to decide who qualifies for dialysis, the artificial kidney that can keep the patient alive indefinitely, but at great cost, says a report in the February 6 Journal of the American Medical Association.

Dr. Roger W. Evans of the Health and Population Study Center, Battelle Human Affairs Research Centers, Seattle, points out that in the early years of kidney dialysis, facilities and funds were sharply limited, and local committees were formed to decide who could be kept alive by the machines and who must be left to die.

It was a bitter decision, and in 1973 dialysis was included as an extended Medicare benefit to all.

At first this was not too burdensome, but by the end of the 1970s cost had snowballed. More than 50,000 dialysis patients are now being kept alive by the machines, at a cost exceeding $1 billion dollars a year. The cost probably will exceed $3 billion by 1984, Dr. Evans says. Since the cost of treatment averages $30,000 annually per person, very few individuals can afford to pay their own way.

Patient population today is much older than in the early 1970s, and more likely to have other medical problems along with kidney failure, such as diabetes. These individuals are high users of medical services, and they are less likely to be rehabilitated and return to work, he points out.

"Before Medicare, many of these patients would not have been selected as candidates for dialysis. Now some people have begun to question whether the present practice of nonselective provision of dialysis can continue. Large numbers of patients with chronic or catastrophic medical conditions are competing for a share of the health dollar. The problem created is how the health care dollar will continue to be apportioned among patients with this and other costly diseases and conditions. It is yet to be decided whether rationing of medical care resources will occur by design or by default."

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Acoustic Neuroma

An audiologic evaluation

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Audiological evaluation is an essential part of the oto-neurological workup in patients with suspected acoustic tumors. This report will provide an historical review and a perspective focusing on newer audiological tests and strategies that have improved considerably the precision in differentiating site of lesion within the auditory system. The classical auditory symptoms associated with acoustic tumors include: tinnitus and unilateral or asymmetrical hearing loss, disproportionately poor speech discrimination or performance intensity-phonetically balanced roll-over, abnormal tone decay, type III or type IV Bekesy tracings, normal temporal summation, and lack of recruitment or decruitment. Absent acoustic reflexes, positive reflex decay, abnormal acoustic reflex latency measurements, and abnormal brainstem auditory evoked potentials are highly sensitive newer modes of testing and are advocated as tests for early detection of these lesions. Early detection would increase the surgeon's ability to conserve hearing and decrease the morbidity of surgery.

The audiologic test battery is composed of a variety of highly-specialized psychoacoustical and physiologic tests to aid the clinician in localizing the site of lesion within the auditory system. When the results are viewed within the context of the entire test battery, certain trends emerge which assist in differentiating normal hearing or cochlear (sensory) disorders from retrocochlear (neural) disorders. These tests are not pathognomonic of acoustic tumors only and other disorders can manifest themselves as retrocochlear findings.

Pure tone audiometry

The initial test that is basic to any audiological evaluation is the pure tone air conduction and bone conduction audiogram. An accurate audiogram is essential since it subjectively defines hearing sensitivity at test frequencies of 0.25 through 8 kHz. aids in the initial gross determination of type of hearing loss, provides a threshold baseline from which other specialized tests are presented and interpreted, and is important in making decisions relevant to the normalcy of evoked potential data.

Schuknecht[1] reported that either auditory (hearing loss and tinnitus) or vestibular symptoms may be the first to appear in acoustic tumors. Sheehy[2] feels that auditory symptoms and findings are the first to develop in most tumor cases, and that tinnitus is the earliest symptom. Previous investigators have reported between 92 to 100 percent of patients with diagnosed acoustic tumors had tinnitus and hearing loss.[3–8] In an early monograph, Cushing[3] associated acoustic tumors with primarily unilateral sensorineural loss. Since then, other authors have attempted to equate various audiometric contours thought to be characteristic of acoustic tumors. In the most recent and largest series of 421 patients with confirmed acoustic tumors, Johnson[9] revealed that 65 percent of patients in his series had high tone loss, 22 percent had flat loss, only 8 percent had low tone loss, and the remaining 5 percent had a trough-shaped loss.

The prevalence of high frequency loss is probably associated with the tonotopic organization of the neurons which comprise the auditory nerve. Specifically, the high frequency fibers arranged on the outermost surface of the nerve appear to be more susceptible to pressure or disturbance of function from a space-occupying lesion. This may partially explain the increased incidence of high frequency hearing loss in acoustic tumor patients.

Speech Audiometry

SRT (speech reception threshold) reflects an individual's ability to repeat simple spondaic words, at a criterion level, usually 50 percent of the time. The SRT is usually in agreement with the PTA (pure tone average) of 0.5, 1, and 2 kHz. within plus or minus 6 db. It should be kept in mind that when SRT is considerably poorer than 6 db. of the pure tone average, a retrocochlear disorder is suspected. Additionally, SRT provides the baseline from which the intensity for speech discrimination testing is presented.

A common audiological manifestation associated with acoustic tumors is a loss of speech discrimination out of proportion to the pure tone threshold loss.[1] Speech discrimination testing has traditionally been performed by having a patient repeat a list of PB (phonetically balanced) monosyllabic words, and scoring their performance in terms of percent

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correct. These word lists are presented by either monitored live voice or, preferably, by recorded versions at a SL (sensation level) of 30 to 40 db. above SRT. At these sensation levels, it is assumed that the PB-MAX (maximum performance score) should be elicited. The functional implication of speech discrimination being out of proportion with the pure tone threshold loss is related to the fact that only a few nerve fibers are needed to transmit pure tone stimuli of threshold magnitude, whereas many fibers are necessary to carry the complex neural signal of speech.[1] This statement is in part based on the results of animal experiments by Schuknecht and Woellner,[10] who have shown up to 75 percent of auditory nerve fibers can be lost without creating pure tone threshold loss, providing, however, that the organ of Corti is intact. Although this hypothesis is probably true in many cases, Johnson[9] recently reported that of 418 cases with confirmed acoustic tumors, 44 percent of the testable patients fell into the category of good to excellent discrimination for speech, this being 60 to 100 percent correct. Thus, one must seriously consider the diagnostic utility of performing speech discrimination tests at just one sensation level.

Realizing this limitation, Jerger and Jerger[11] demonstrated that by generating a complete PI (performance-intensity) function for PB word lists, the ability to differentiate between patients with retrocochlear disorders and those with cochlear impairments is greatly enhanced. For patients with cochlear impairments, the PI-PB function generally rises to a maximum, and then either reaches a plateau or decreases mildly to moderately as intensity of the speech signal is increased. In contrast, the performance in individuals with eighth nerve disorders usually declines markedly as the speech level is increased beyond the point of maximum discrimination. This result was termed PI-PB roll-over. Since the initial report of Jerger and Jerger,[11] other studies have corroborated the fact the PB maximum does not reliably separate these two populations due to considerable overlap in test scores.[12,13] These authors emphasize the fact that obtaining speech discrimination performance at one sensation level is of limited diagnostic value in differentiating cochlear from retrocochlear disorders, particularly when good discrimination is observed. To further sensitize speech discrimination testing, a complete PI-PB function is strongly advocated.

Tests of auditory adaptation

Tests of auditory adaptation have a long history of being successful in differentiating cochlear from retrocochlear disorders. This writer will define abnormal adaptation as the inability to maintain the audibility and/or the tonality of a pure tone as a function of time. The term "tone decay" in this context is considered analogous to adaptation.

Manual techniques utilizing a simple audiometer employing pure tone stimuli have received considerable attention. Contemporary clinicians have used a variety of methods to report this phenomenon.[14-19] Two important points should be kept in mind when interpreting these results: (1) normal listeners and persons with cochlear impairments may exhibit slight to mild adaptation, but neural disorders tend to exhibit excessive adaptation, this being greater than 25 db. from the reference threshold; and (2) loss of tonality of the test stimulus (referred to as tone perversion) is also considered a qualitative retrocochlear indicator.[20] Johnson[9] reported 77 percent of his patients with confirmed acoustic tumors exhibited significant tone decay utilizing Green's[17] protocol. Continued usage of tone decay as a screening procedure in unilateral sensori-neural impairment is advocated.

Another popular clinical technique in the assessment of auditory adaptation is Bekesy audiometry. In this technique, the threshold for pulsed tones at continuously changing frequencies is compared to thresholds of a continuous tone presented in a similar manner. Four basic configurations or types were initially described.[21] Essentially, type I and type II have primarily been associated with cochlear disorders, and type III and type IV with eighth nerve lesions. Recent studies have reported that as many as 30 to 40 percent of patients with confirmed eighth nerve tumors failed to demonstrate a classic type III or type IV Bekesy pattern.[22,23] In his latest review, Johnson[9] reported only 41 percent of patients in his series produced type III or type IV tracings. Justifiably, some authors have questioned the continued usage of traditional Bekesy testing in the audiometric test battery.

Variations from the traditional Bekesy technique appear to offer the clinician alternatives in distinguishing cochlear from retrocochlear disorders. These include discrete frequency tracings,[24,25] the addition of a backward continuous trace,[26] changing the interstimulus interval,[27,28] performing the test at MCL (most comfortable loudness),[29] and utilizing the Bekesy tracking method to measure temporal summation.[30] The utilization of these variations will ultimately be determined by the clinician's own philosophy and his willingness and ability to modify existing equipment. Second, the major drawback to Bekesy audiometry in general is the considerable time element needed to perform the test. Thus, before advocating newer Bekesy variations on a routine clinical basis, more experience and reports from a variety of clinics will be needed.

Tests for recruitment

Recruitment has been defined as an abnormally rapid growth of loudness with increase in intensity. This phenomenon was initially described by Fowler,[31] and has been of value in localizing pathology to the cochlea.

The one direct test for recruitment is the ABLB (alternate binaural loudness balance) test. When utilizing this procedure, recruitment is based on a comparison of the sensation levels required for the experience of equal loudness between ears. A significantly greater sensation level to the good ear suggests the presence of recruitment. For ease of interpretation, these data can be portrayed on a graph called a laddergram, and can demonstrate either: (1) no recruitment; (2) partial recruitment; (3) complete recruitment; or (4) decruitment. Decruitment is defined as an abnormally slow growth of loudness with increased intensity. Partial and complete recruitment of loudness are associated with a cochlear site of lesion, while lack of recruitment is associated with eighth nerve lesions. In three recent studies, the predictive accuracy of the test was between 50 to 60 percent in patients with retrocochlear lesions.[9,22,32]

Differential intensity discrimination

Probably the most widely used test for differential intensity discrimination is the SISI (short increment sensitivity index), introduced by Jerger, Shedd, and Harford.[33] Basically, the patient's task is to detect 1 db. increments of intensity which are superimposed on a 20 db. sensation level carrier tone. Twenty increments weighted at 5 percent per correct identification constitute the test. Jerger[34] recommended the following criteria for interpretation of SISI test results: scores of 0 to 20 percent should be observed for normals, conductive losses, and retrocochlear lesions; scores of 60 to 100 percent should be observed in cochlear lesions; and scores between 21 to 59 percent were considered questionable. In a recent report concerning 340 patients with confirmed acoustic tumors, Johnson[9] reported that 56 percent of the patients had low scores, and more than one third of the patients scored in the high percentage category which is usually associated with cochlear disorders. Thus, only slightly more than one half of his patients fell, as anticipated, in the low category. Like the traditional Bekesy test, the SISI test is no longer of high significance in the differential diagnosis of acoustic tumors. Some authors have discontinued using this test, while others have put it on a reserve status.

The accuracy of previously mentioned audiological tests can be diminished by the fact that acoustic tumors can present primarily with sensory or concomitant cochlear involvement. This may be the result of interruption of the cochlear blood supply, or because of changes in the chemistry of the cochlear fluids.[35,36] To quote Jerger[37] "It is a reasonable assumption that in these patients, the cochlea is involved to a relatively greater extent than the eighth nerve and the cochlear signs override the eighth nerve signs."

Acoustic reflex testing

One of the more successful tests in differentiating cochlear from retrocochlear disorders is the acoustic reflex test. These measurements are made utilizing an electro-acoustic impedance/admittance device and are a part of the middle ear test battery. Normal middle ear integrity is a prerequisite for accurate interpretation. Available evidence suggests that the acoustic reflex arc is multi-synaptic and is made up of both ipsilateral and contralateral pathways. The afferent portion of the arc is mediated by the eighth nerve, multiple synapses are located within the brainstem, and the efferent portion of the arc is mediated by the seventh nerve and the stapedius muscle. The acoustic reflex is elicited clinically by presenting suprathreshold pure tone stimuli to one ear, and indirectly observing a change in eardrum impedance/admittance either in the same (ipsilateral) or in the opposite (contralateral) ear.

The acoustic reflex is bilateral and roughly symmetrical when either ear is stimulated. It can be elicited from 70 to 100 db. SL in normal ears from 0.25 to 4 kHz. By contrast, a 40 db. cochlear loss may only require a 45 db. SL to elicit the reflex. A reduced dynamic range (that is, the db. difference between behavioral and reflex thresholds) is characteristic of cochlear lesions. This observation was first described by Metz[38] and may have some relationship to recruitment. Additionally, the acoustic reflex has a dynamic range of 20 to 30 db. from its threshold, to a point where further increases in sound pressure do not produce a corresponding increase in reflex magnitude.[39] In retrocochlear lesions, however, the magnitude of this relationship may be diminished.[40]

As hearing loss becomes more severe, the absence of the acoustic reflex becomes more likely. A study by Jerger et al.[41] showed a clear demarcation of absence of acoustic reflex in groups of patients with conductive, cochlear, and eighth nerve disorders. It is evident from their data that pathologic ears with cochlear involvement seldom have absent acoustic reflexes until the hearing loss exceeds a moderately severe level. By contrast, the acoustic reflex was absent 30 percent of the time in patients with normal hearing but who had eighth nerve lesions, and that the likelihood of absent reflexes quickly rose to 70 percent with a mild 30 db. hearing loss.

Another added clinical dimension to the acoustic reflex test is in measuring the decay of reflex amplitude, termed "reflex decay." This is accomplished by raising the pure tone stimulus 10 db. above reflex threshold, sustaining the tone and observing the amplitude of the response after 10 seconds. If a reflex response diminishes to less than one half of the original amplitude in 10 seconds, it is considered positive reflex decay.[42] Absent acoustic reflexes and positive reflex decay measurements have been shown to be effective indicators of retrocochlear disorders.[32,41,43,44] To highlight the efficacy of this procedure, Sheehy and Inzer[45] presented 24 selected patients from a group of 184 surgically confirmed tumors, who might not have been evaluated further for an acoustic or cerebellar pontine angle tumor because of normal or near normal hearing, symmetrical hearing impairment, or findings on normal plain x-ray films. Their results revealed a retrocochlear problem (either absence or decay) of the reflex in 19 of the 24 patients, or 80 percent of their population. Interestingly, the test gave positive results in 11 of 12 patients with normal or near normal hearing and in 7 of 8 patients with normal findings on x-ray films. The absence of the acoustic reflex and/or positive reflex decay, in light of normal or near normal hearing levels, must be considered a suspicious finding until the presence of an acoustic tumor is ruled out.

Recent advances in equipment design allow for the evaluation of the ipsilateral acoustic reflex. The comparison of the ipsilateral versus contralateral acoustic reflex thresholds have been reported to be helpful in distinguishing eighth nerve from brainstem lesions.[46,47] The quantification of other acoustic reflex parameters including latency, rise-time, amplitude, and relaxation, also have potential diagnostic significance.[48] One parameter, in particular, that has been reported to have considerable potential in identifying retrocochlear lesions, is the determination of acoustic reflex latency.[49] According to these authors, acoustic reflex latency appears to be the most sensitive acoustic reflex parameter in identifying retrocochlear disorders.

Needless to say, acoustic reflex testing should be routine when an acoustic tumor is suspected. It is quick, easy to perform, highly sensitive, and requires minimal cooperation from the patient.

Brainstem auditory evoked potentials

The BAEPs (brainstem auditory evoked potentials) have been reported to be the most accurate audiometric test for acoustic tumor detection, with a detection rate of 96 percent and a false-positive rate of 8 percent.[50] To perform this test, three silver/silver chloride disc electrodes are attached to the head, one at the vertex and one on each mastoid process. Click stimuli, usually at the rate of 10 per second, are presented to the patient's ear by standard audiometric earphones at suprathreshold levels. The bio-electric potentials picked up by these electrodes are amplified, filtered, digitized, and fed to an averaging computer for processing. Theoretically, the click stimuli should discharge many eighth nerve fibers in synchrony, and time-lock the response to the computer. The other bioelectric activity not time-locked to the computer is virtually cancelled out.

As a result of this process, a series of five to seven waves, with characteristic latencies and morphology, appear within the first ten milliseconds following click stimuli in normals.[51] These wave forms represent the compound action potential and the synchronous activation of the major afferent nuclei within the auditory brainstem. A broad anatomical-spatial interpretation can be considered as follows: Wave I represents the eighth nerve, waves II and III represent the cerebellum and pons, and waves IV and V represent mid-brain structures. The value of waves VI and VII has not been firmly established.

It appears that the most reliable and stable criterion in acoustic tumor detection is that of response latency. The concept that increased latency could be useful in detecting tumors that compress the eighth nerve has been demonstrated in animal experiments.[52]

It is generally agreed that peak latency of these wave forms is predictable within certain tolerances, usually more or less than 0.2 milliseconds when appropriate stimulus intensities are utilized.[53] Latencies longer than 0.2 milliseconds suggest dysfunction along the pathway of the ear stimulated. The exceptions are conductive hearing loss and high frequency hearing loss greater than 50 db. at 4 kHz. Measurement of latency values between waves I to III, I to V, and III to V in the same ear have also been beneficial in determining so-called central conduction times in identifying dysfunction.[53,54] These values have been considered abnormal if they exceeded a predetermined statistical confidence limit. Usually, the 95 or 99 percent confidence limits are set as cut-off points when making such decisions.

Another formidable technique introduced by Selters and Brackman[50] in acoustic tumor detection is the measurement of wave V latency difference between ears. These authors suggest that latency differences greater than 0.2 milliseconds are significant in identifying retrocochlear lesions. In their study, a comparison of wave V latencies in normal listeners revealed an interaural latency difference of 0 milliseconds, and in no case was there more than a 0.2 millisecond difference. They also studied interaural latency differences in patients with unilateral hearing loss not caused by a tumor. Their results revealed that high frequency hearing loss greater than 50 db. contributed to increasing the absolute latency of wave V. To adjust for this phenomenon, they reported correction factors based on the patient's pure tone threshold at 4 kHz. Accordingly, this correction factor increased the sensitivity, and decreased the false-positive rate of the test. Additionally, these authors felt that peak amplitudes may also be reduced as a function of tumor pressure. They have hypothesized that there could be some cancellation of the electric fields emanating from the nerve fibers if some cells were repolarizing while others were firing. Moreover, it was also felt that tumor pressure could desynchronize this electrical activity. This presumed desynchronization and cancellation could explain the decreased amplitude and increased latency of later peaks, particularly in wave V, which are often seen in patients with acoustic tumors.

When considering the pathophysiology of acoustic tumors, the associated BAEP parameters mentioned previously can be appreciated. In the process of growth, these lesions may initially produce mechanical distortions of axons which may reversibly interfere with normal axonal functions. Later, the tumor can produce disruption or actual degeneration of axons. At any moment, the degree of functional impairment of the auditory nerve represents the sum of these effects.[55] Recent developments and refinements in performing BAEPs can assist in providing the clinician with this type of subtle information not available by any other audiometric test.

The advantages of the test have been outlined by Nodar and Hahn.[56] The test is not invasive, the results are independent of the state of the individual (such as, waking, sleeping, sedated, under general anesthesia, or comatose), there is no morbidity, and the patient can be tested as an outpatient, in a hospital room, in the operating room, as well as in a sound-treated suite. Minimum cooperation from the patient is required. The test is highly reliable and it is an excellent approach for follow-up testing.

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Significant decline in child window falls

New York City Health Commissioner Dr. Reinaldo A. Ferrer recently released statistics which indicate that there was a 49 percent decline in preventable child window falls, and a 69 percent decline in preventable fatalities in 1980, as compared with 1979.

"Since 1978," said Dr. Ferrer, "when the Health Code regulation requiring landlords to provide and install window guards was first implemented, preventable child window falls and fatalities have declined a highly significant 74.5 percent and 75 percent respectively." In addition, inhospital care for fall victims has decreased from 1,104 inhospital days in 1978 to 359 days in 1980, and costs from approximately $290,350 in 1978 to approximately $94,400 in 1980.

The 1980 statistics indicate that the New York City Health Code requirement for window guard installation, combined with the Health Department's continuing educational program have resulted in important savings in lives and money for New York City residents. "The preventable loss or serious injury to a single child is untenable," said Charlotte Spiegel, Director of Window Falls Prevention Program. The department alerts all parents to the dangers of open, unguarded windows, and urges parents of children ten years of age or younger to notify their landlords by certified mail, return receipt requested, of their eligibility for window guards. Eligibility forms and information are available on request by calling (212) 566-8082 or 7747.

Gram-Negative Rod Infections

II. Acinetobacter *infections in general hospital*

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Isolates of Acinetobacter calcoaceticus *(formerly classed as* Mima *or* Herellea*) were surveyed over a two-year period in a general hospital. The number of* Acinetobacter *strains was about one fourth that of* Klebsiella *organisms isolated during the same time period in the first part of this study. The organisms generally appeared as colonies in instrumented urinary and respiratory tracts without significant associated disease. However, true* Acinetobacter *infection did occur as (1) community-acquired respiratory infections in young children and (2) along with other organisms in purulent wound infections following head and neck surgery in adults. No antibiotic agent we tested was uniformly successful in inhibiting* Acinetobacter, *but carbenicillin and kanamycin were most consistently active. Subspecies* lwoffi *was generally more sensitive than* anitratus. *Colistin, found by others to be very active against* Acinetobacter, *was not tested in this series.*

This article is the second in a series in which computer-generated data are used to explore the role of various gram-negative rods in a general hospital. In the first article,[1] *Klebsiella* isolates were analyzed; in this one, data on *Acinetobacter calcoaceticus* isolates are examined.

These organisms are nonmotile, short gram-negative coccobacilli resembling *Neisseria* in colonial and cellular morphology, but separable from the latter by their lack of oxidase. They lack the ability to reduce nitrates, a useful feature separating them from enteric gram-negative rods.

There is only one species of the genus, *A. calcoaceticus.* Although unable to ferment most sugars readily, most strains attack glucose and xylose oxidatively and can ferment concentrated lactose solutions slowly. These comprise the subspecies *anitratus,* generally similar to organisms formerly described as *Herellea vaginicola.*

A few strains lack even these modest activities against carbohydrates and comprise the subspecies *lwoffi,* generally identical to organisms previously reported as *Mima polymorpha,* with one exception: oxidase-positive strains formerly called *M. polymorpha var. oxidans* are not presently included with *Acinetobacter* but instead form a separate genus, *Moraxella.*

Since *Acinetobacter* strains of both varieties are occasionally isolated in our hospital, the present study was undertaken to explore their significance in a general hospital setting.

Materials and methods

These have been detailed previously.[1] Briefly, computerized data from all cultures yielding *A. calcoaceticus* during the years 1978 and 1979 were used. They were obtained in a medium-sized general hospital with all major clinical services treating patients drawn from a cross section of the social and economic classes. Data were scanned to eliminate repetitive isolations at the same site from any one patient. Similarly, duplicative antibiotic sensitivity determinations on strains isolated in different cultures from the same individual were discarded.

Since no identifiable outbreak due to these organisms occurred during the period surveyed, the data are not weighted by multiple isolates of the same hospital-associated strain from several patients.

Speciation was by the API-20 method, supplemented by additional tests suggested by the API Manual.* Sensitivity determinations were done by the Kirby-Bauer method and statistical analysis by the chi-squared method, using Yates' correction where applicable.

Results

Frequency of isolates. To establish the relative frequency of *Acinetobacter* isolates as compared with those of more commonly seen organisms, we counted the strains isolated during the same 21-month period in which we surveyed *Klebsiella* isolates. The data, displayed in Table I, indicate that during this period *Acinetobacter* strains were found 29 percent as often as *K. pneumoniae,* and 23 percent as often as all *Klebsiella* species taken together.

Relative frequency of biotypes. Variety *ani-*

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* API = Analytical Profile Index, ANALYTAB Products Division of Ayerst Laboratories, Plainview, New York.

TABLE I. Relative numbers of *Klebsiella* and *Acinetobacter* strains at Sisters of Charity Hospital, January, 1978 to September, 1979

Organism	Number
Klebsiella	
pneumoniae	305
oxytoca	64
ozaenae	20
rhinoscleromatis	0
TOTAL	389
Acinetobacter calcoaceticus	
var anitratus	80
var. lwoffi	8
TOTAL	88

tratus was found ten times more often than was *lwoffi*.

Sites of origin. Table II shows sites of origin of *Acinetobacter*. These organisms predominantly infected or colonized the respiratory tract where they appeared under two circumstances. First, they were often found in sputum or tracheal secretions of seriously ill patients, usually in association with intubation, tracheostomy, or mechanical ventilation. The circumstances in these instances strongly suggested nosocomial acquisition. Second, they sometimes appeared in the upper respiratory tract or neighboring facial areas of young children who entered the hospital with community-acquired disease. Table III summarizes the features of these cases.

In wounds, they usually appeared as part of a mixed flora, often with *Enterobacter* species or *Staphylococcus aureus*. In two cases, they were recovered in pure culture: a patient with the organism in the sputum developed a wound infection following orofacial surgery, and an elderly man with chronic osteomyelitis of the lower leg persistently shedded the organism in pure culture.

Of the 17 wound isolates of *var. anitratus*, five were from the head and neck, and four of these followed surgical procedures in this area. In contrast, none of the five wound isolations of *var. lwoffi* were from this area of the body. While suggestive, the difference could not be proved statistically significant.

In urine, the organism almost invariably was found as a colonizer of the catheterized patient, with little or no evidence for the production of serious disease.

TABLE II. Sites of origin of *A. calcoaceticus* (percent)

Isolated from	*Var. anitratus* (84 sites)	*Var. lwoffi* (14 sites)
Blood	3.6	. . .
Urine	13.1	14.3
Wounds	20.2	35.7
Respiratory tract	50.0	42.9
Female genital tract	1.2	7.1
Chest, abdominal fluids	4.8	. . .
Intestine	2.4	. . .
Miscellaneous	4.8	. . .

The three isolates from blood were all in small numbers and were considered to represent possible contamination or brief bacteremia rather than true blood stream invasion.

Stool was not a site of origin, since nonfermenting gram-negative rods from this source were not routinely speciated. Also, no strain was isolated from cerebrospinal fluid over the two-year period surveyed.

Antibiotic sensitivity. The incidences of sensitivity to various antibiotics in the two strains are displayed in Table IV. No systemically active antibiotic was uniformly active against these organisms, although kanamycin and carbenicillin each inhibited about three fourths of the strains, and gentamicin and tetracycline inhibited about one half.

It is of interest to compare the two aminoglycosides, kanamycin and gentamicin. Kanamycin was more consistently active against both varieties of *Acinetobacter*, and strains which were not sensitive

TABLE III. Community-acquired pediatric infections

Age	Sex	Diagnosis	*Acinetobacter* Culture
3 months	F	Bronchiolitis	Throat, nearly pure culture, with a few *Enterobacter sp.*
6 years	M	Tracheobronchitis	Throat, nearly pure culture with rare streptococci and nonpathogenic *Neisseria*
4 months	F	Acute upper respiratory infection	Nose, nearly pure culture with rare *Staphylococcus* species colonies
1 year	F	Cellulitis, eye	Heavy growth with *Staphylococcus aureus*
2 years	M	Bronchiolitis	Throat, nearly pure culture, rare streptococci
1 year	F	Infected atopic dermatitis of face	Skin exudate, mixed with *Staphylococcus aureus* and *Streptococcus pyogenes*

TABLE IV. Antibiotic sensitivity of *Acinetobacter* varieties (percent)

Sensitive	*var. anitratus* (63-68 strains)	*var. lwoffi* (14 strains)
Ampicillin	12	50
Carbenicillin	76	64
Cephalothin	12	28
Chloramphenicol	18	64
Gentamicin	58	64
Kanamycin	78	71
Tetracycline	59	71
(Urinary organisms only)	(8-10 strains)	(1 strain)
Nalidixic acid	80	0
Nitrofurantoin	0	100
TMP-SMX*	89	100

* trimethoprim–sulfamethoxazole

to it usually also resisted gentamicin. On the other hand, one-half the strains resistant to gentamicin remained sensitive to kanamycin.

For most antibiotics, *var. lwoffi* was sensitive more often than *var. anitratus,* and in the cases of ampicillin and chloramphenicol, the differences were statistically significant. Ampicillin inhibited only about one eighth of *anitratus* strains but one half of the *lwoffi* variety were sensitive ($p = 0.01$ to 0.001); similarly, chloramphenicol inhibited only about one sixth of the former but almost two thirds of the latter variety ($p = 0.001$).

A similar tendency was seen with cephalothin, which inhibited *anitratus* strains only about 12 percent of the time but 28 percent of *lwoffi,* although our data were not extensive enough to prove a significant difference.

Of the drugs useful against urinary infections, trimethoprim-sulfamethoxazole was the most active against the few strains tested.

Comment

There is a natural tendency of physicians to publish sporadic cases of infections due to unusual organisms. Because of this, the ability of *Acinetobacter* (previously called *Mima* or *Herellea*) organisms to produce occasional cases of endocarditis, pneumonia, or meningitis is well documented. Reported cases of endocarditis have usually described previously healthy men who suffered destructive lesions of the aortic valve due to these organisms.[2–5] Meningitis[6–9] may attack children or adults with either an acute or chronic course. The acute form may be confused with meningococcal disease not only on the grounds of the organism's morphology, but also because a petechial rash identical with that of meningococcemia occurs in about 30 percent of cases. Sporadic cases of pneumonia in adults usually have occurred in a setting of diminished resistance due to alcoholism or immunosuppression.[10–12] If treated with appropriate antimicrobials, the disease is benign. Improperly treated, however, *Acinetobacter* pneumonia may be necrotizing, cavitary, and lead to death.

We saw no cases resembling these over the two-year period surveyed. We did, however, observe that the organism is not rare. In fact, the number of strains isolated in our laboratory was about one fourth that of *Klebsiella* organisms isolated during the same time period. Our experience tended to parallel those of others who have systematically studied these organisms as revealed by cultures of hospitalized patients.[13–15] When present in blood, *Acinetobacter* usually appeared to be a contaminant or associated with plastic indwelling venous catheters. In urine, they often represented colonization of a catheterized patient without much associated disease and in respiratory secretions they often appeared to be part of a mixed flora colonizing intubated or tracheostomized patients on ventilators.

In two situations, however, we found these organisms to be associated with significant disease. First, they appeared to be able to cause community-acquired respiratory tract infections of young children, and to be able to spread from that site to neighboring facial structures. The reason for the selective involvement of children by this infection may lie in the fact that they lack antibodies to these bacteria early in life but acquire them after one year of age, a situation analogous to that in the case of *Hemophilus influenzae* group B antibody development.[16] This is consistent with data from one of the previously cited studies[13] showing that 40 percent of *Acinetobacter* infections occurred during the first ten years of life.

Second, these organisms participate with others in purulent infections following head and neck surgery, an association previously noted by others.[17] Often, such operations involve unavoidable contamination of the wound by nasal or oral flora, or that of accessory spaces of the head such as sinuses. Presumably, this provides a portal of entry.

While we did not observe the nosocomial spread of a hospital-associated strain of *Acinetobacter,* even this can occur, and it can be an especially difficult problem, for example, in burn treatment units.[18]

Antimicrobial sensitivity testing did not show any drug to be uniformly successful in inhibiting these organisms; of the agents we tested, carbenicillin and kanamycin were the most consistently active. It was interesting to observe that *lwoffi* strains were more often sensitive to ampicillin, chloramphenicol, and cephalothin than were the *anitratus* variety.

Unfortunately, we did not test the activity of colistin against these organisms and were unable to confirm the observations of others[19] that this drug inhibits nearly all *Acinetobacter* strains. In view of these data, we suggest that these organisms routinely be tested for sensitivity against this drug. Also, because of the report that they are usually resistant to tetracycline but almost uniformly sensitive to the new derivatives, minocycline and doxycycline,[20] we suggest that one of the latter drugs be used for sensitivity testing in place of tetracycline.

Summary

Organisms formerly classed as *Mima* or *Herellea* now are identified as *Acinetobacter calcoaceticus.* Isolates of this species were surveyed over a two-year period in a general hospital. Instances of endocarditis, pneumonia, or meningitis were not observed. Instead, these organisms were generally associated with colonization of instrumented urinary and respiratory tracts.

True infections, as opposed to mere colonization, did occur in two groups of patients: children with community-acquired respiratory infections and adults with wound infections following head and neck surgery.

No antibiotic was consistently active against *Aci-*

netobacter strains although the subspecies *lwoffi* was generally more sensitive than *anitratus*. Colistin, found by others to be very active, was not tested by us. Of the antibiotics we surveyed, kanamycin and carbenicillin were most consistently sensitive.

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Extended wear contact lenses

The Food and Drug Administration in January approved the first "extended wear" contact lenses for general use for up to two weeks at a time—without being removed even for sleep.

Previously, extended wear contact lenses were approved only for patients who had cataract surgery.

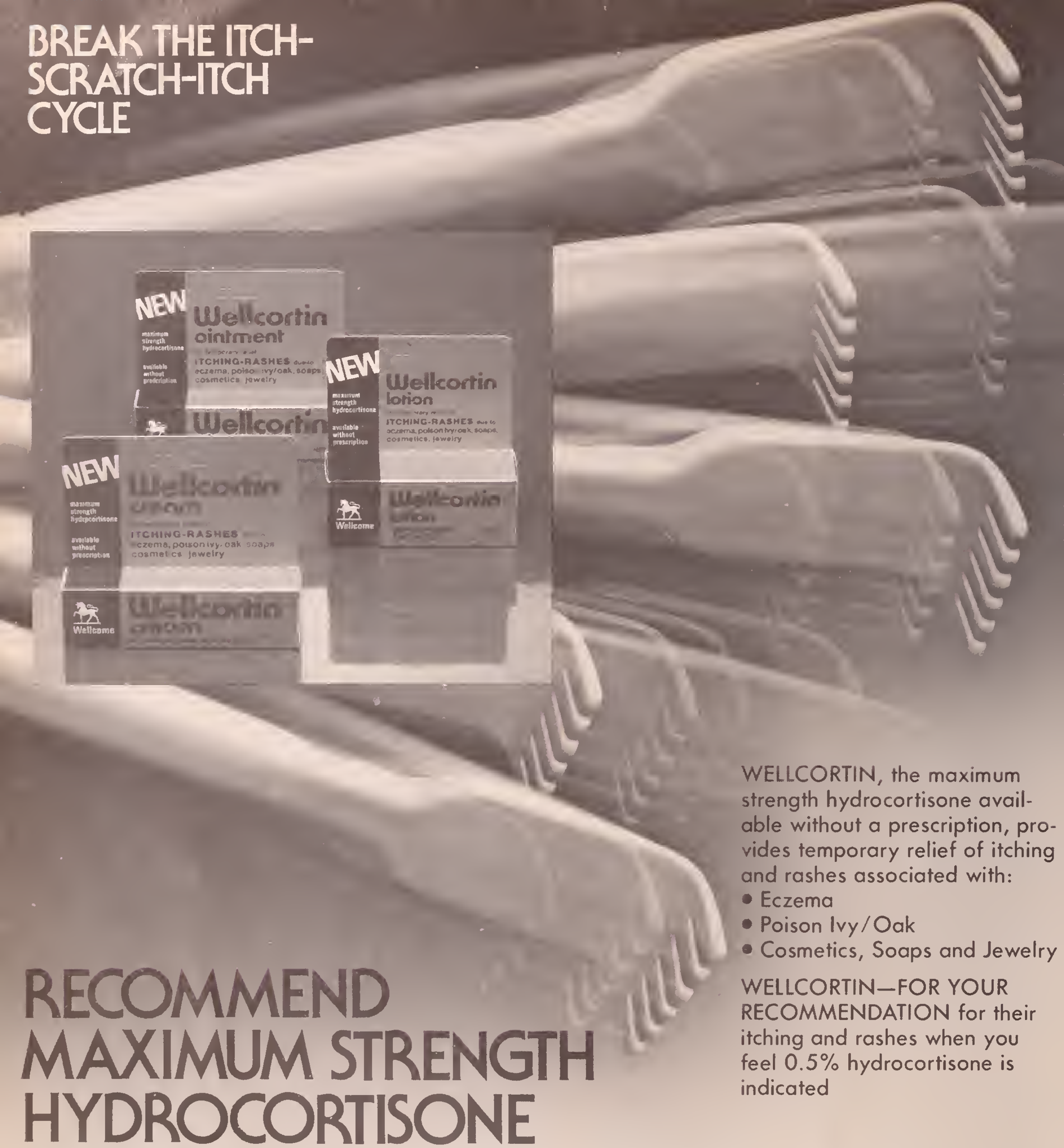
The lenses are made of a water-absorbing material which allows oxygen to reach the cornea even when the wearer is asleep. The lenses are cleaned and disinfected the same as daily-wear soft lenses, but less frequently.

The long wearing lens, called Hydrocurve II, is manufactured by Soft Lenses, Inc., of San Diego, Calif. (Soft Lenses, Inc., uses the name Hydrocurve II for three versions of soft contact lenses: daily wear; extended wear for patients who had cataract surgery; and extended wear lenses for general use (approved today). The three are not interchangeable, and no change in wearing habits should be made without first checking with an ophthalmologist or optometrist.)

The lenses were recommended for approval by FDA's Ophthalmic Device Section, an advisory panel of ophthalmologists, optometrists, and consumer representatives who advise FDA on clinical matters.

The FDA recommends that extended wear contact lenses be prescribed and fitted only by an ophthalmologist or optometrist. In its approval, FDA requires long-term follow-up of people who receive the lens during its initial sale.

Before approving the lenses for extended wear for general use, FDA evaluated the results of several studies of Hydrocurve II for daily and extended wear. More than 2,100 people participated in the studies, including both patients who had cataract surgery and people with healthy eyes requiring vision correction.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Wellcome

Electrocardiograms of the Month

Montefiore Hospital and Medical Center
The Bronx, New York

Editors
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Head, Department of Electrocardiography
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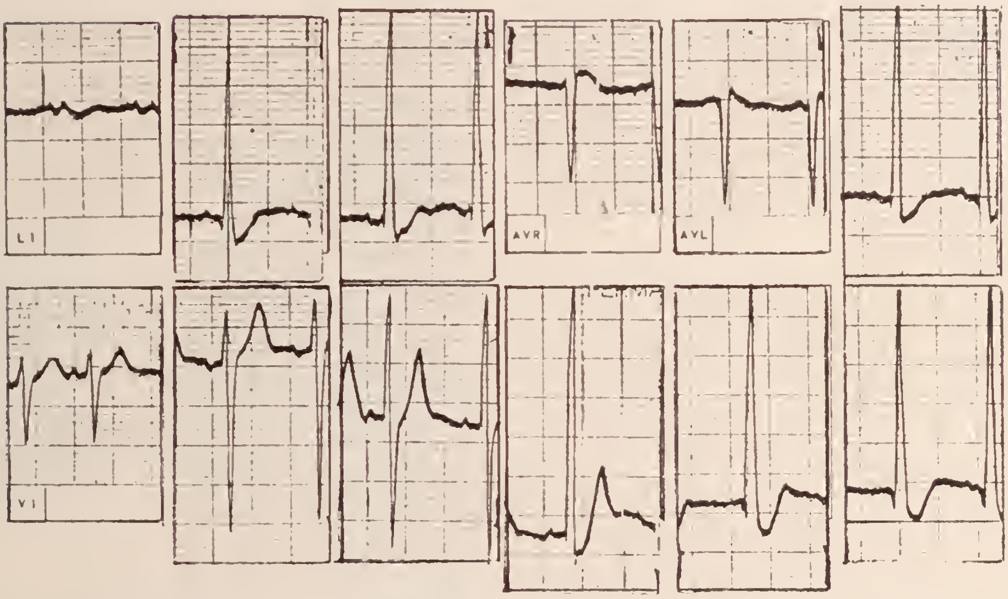
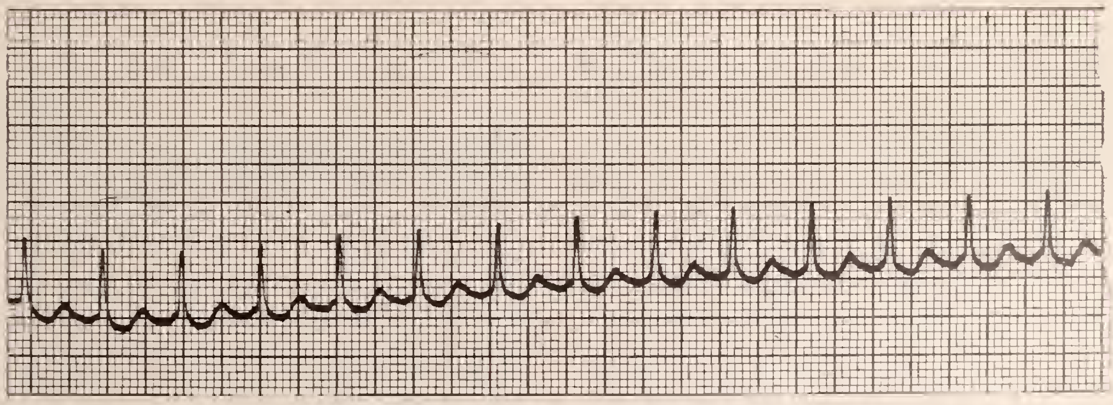


QUESTION 313. The patient was a 73-year-old woman admitted with congestive heart failure. What is the diagnosis?



QUESTION 314. Lead 2. What is the rhythm?

Electrocardiograms of the Month

ELUCIDATION

Question 313. The rhythm is sinus tachycardia. In V_4-V_6 there are tall R waves with S-T segment depression. The height of the R wave in V_5 when added to the depth of the S wave in V_2 measures 50 millimeters which in an adult usually indicates left ventricular hypertrophy. The limb leads show a small R wave in lead 1 with tall R waves in 2, 3, and aVF. The frontal plane electrical axis of approximately plus 90° in a patient with left ventricular hypertrophy may indicate right ventricular hypertrophy as well.

Question 314. The ventricular rate is regular at a rate of 145 per min. No definite P waves are seen. The baseline is never isoelectric, but undulates. The interval between the QRS and T wave and the T and next QRS are downward sloping. These undulations are regular and are flutter waves; 2:1 flutter is present.

Atrial flutter must be suspected in a supraventricular tachycardia at a rate between 140 to 160 min. in the absence of clearly identifiable P waves. Maneuvers such as carotid pressure or drugs such as digitalis or edrophonium may confirm the diagnosis by slowing the ventricular rate without effecting the flutter rate. The flutter waves then become apparent.

Coffee enema treatments said fatally dangerous

Coffee enemas can kill you, says a report in the October 3 Journal of the American Medical Association.

Coffee enemas are a bizarre so-called treatment for cancer and other diseases used by some unconventional practitioners, John W. Eisele, M.D., of the Office of the Chief Medical Examiner, Seattle, says.

Dr. Eisele describes two episodes in which individuals subjected to frequent coffee enemas died from the enemas themselves rather than from the conditions they were supposed to cure.

"Naturopathic therapies are increasing in popularity in the United States, and many of them rely primarily on alterations in diet. Although diet and nutrition are recognized as important adjuncts in cancer therapy, conventional medicine rejects the concept of cancer therapy relying solely on dietary changes. Unlicensed practitioners of such therapy have been discouraged or prevented from practicing in the United States," he says.

Usually the unconventional therapies are harmless, even if they don't bring a cure. But the coffee enemas can be dangerous, he says.

A 46-year-old woman died after treatment with coffee enemas for colitis and arthritis. The coffee enemas were given one each hour during her final days.

A 37-year old woman who had had a mastectomy, but had refused drug therapy after surgery was given coffee enemas when her breast lump recurred. She died of an imbalance of body fluids and salts brought on by the massive enemas.

Dr. Eisele cautioned that "With the current wave of popularity of naturopathic medicine, one would expect an increase in this therapy and consequent morbidity and mortality."

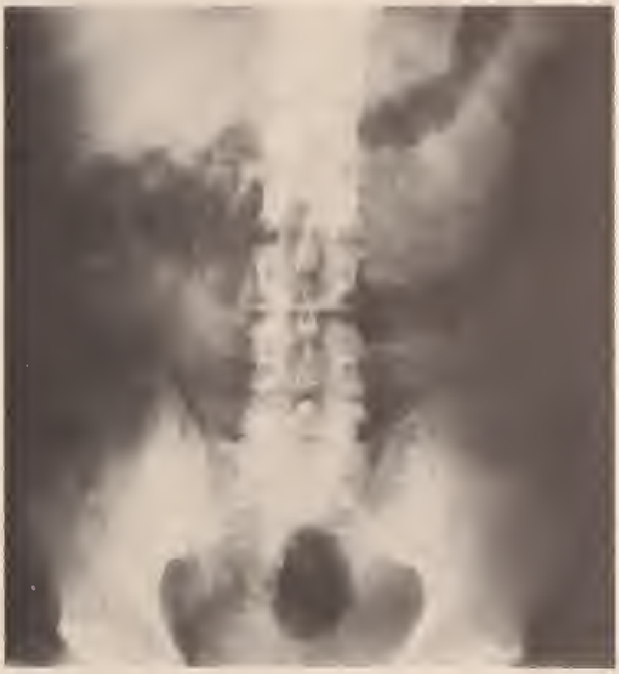
Radiologic Problem of the Month

Montefiore Hospital and Medical Center
The Bronx, New York

Editor

KAKARLA SUBBARAO, M.D.
Professor of Radiology at
Albert Einstein College of Medicine

Acute Abdomen



This 32-year-old man appeared with an acute abdominal pain.

Elucidation

Supine view of the abdomen reveals a normal gas-filled stomach. The transverse colon is moderately distended with gas, no gas or fecal material is present beyond the splenic flexure. Extrinsic pressure is noted over the distal portion of transverse colon depressing this segment. The superior wall of depressed colon also shows small indentations. The haustra, which are well defined, in the proximal transverse colon are effaced in this distal part. A gas-distended loop of small bowel is also noted in the left side of the pelvis. The space between the stomach and transverse colon appears to be increased.

These radiological findings do not suggest mechanical obstruction at the level of splenic flexure as there is neither distention of right side of the colon nor fecal material present in the transverse colon, which should ordinarily be present proximal to the site of suspected obstruction. The appearance does not represent toxic megacolon, the clinical symptoms do not suggest it, nor is the distention of transverse colon large enough to indicate megacolon. Any form of colitis, granulomatous, ulcerative, or ischemic can produce loss of haustrations and indentations of the walls due either to edema or ulcerations or both. The pattern of gas distribution, the increased space between stomach and colon associated with extrinsic pressure over the transverse colon, the "colon cut-off" at the distal point of transverse colon, and the "sentinel loop" of small bowel in the pelvis when associated with acute abdominal pain — all indicate acute pancreatitis with ileus.

Acute pancreatitis appears as protean radiological manifestations even on a scout film of the abdomen. The newer imaging modalities such as computerized tomography and ultrasound cannot replace a plain film examination in acute pancreatitis, although they enhance, support and confirm the findings. Plain film findings of acute pancreatitis as gastrocolic separation, "colon cut-off sign," "sentinel loop" of ileus and, in delayed films, generalized type of ileus with fluid in the peritoneal cavity have been plentifully described in the literature.[1-4] Controversial statements do exist regarding the normal limits of measurements of the gastrocolic space, but it is the extrinsic pressure over the colon that is important rather than the increased space. The increased space is due to edema and collection of fluid in the lesser sac. The "colon cut-off" sign, which is seen as abrupt termination of the colonic distention at the splenic flexure, is due to various factors such as ischemia and paralysis. The "sentinel loop" represents segmental ileus of small bowel, which although ascribed to pancreatitis is encountered in acute abdominal colic of any etiology.

In the differential diagnosis one considers various causes producing region ileus pain and distention, examples being partial obstruction, ischemia of bowel, or renal colic.

Diagnosis

Acute pancreatitis with regional ileus.

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Air tight homes present serious health hazards

Adding weather stripping and insulation to homes in an effort to reduce heat loss and save on the fuel bill is bringing such serious health hazards that the program should be halted pending review of the situation, declares an editorial in the January 16 Journal of the American Medical Association.

Peter A. Breysse of the University of Washington, School of Public Health and Community Medicine, Seattle, declares in the editorial:

"There is no doubt that unless a reasonable and logical plan is developed, the deleterious health impacts of excessive home tightening will be enormous."

Most dwellings are far from air tight, with outside air leaking in around doors and windows. This was not a problem in the era of modest home heating bills. But with the fuel price sky rocketing during the 1970s, leaks began to cost substantial sums, and many home owners sought to reduce the flow of warm air out and cold air in by weather stripping doors and windows and adding insulation in the attic and wall spaces.

Tightening of homes had reduced fuel consumption, but it also has brought indoor air pollution problems that did not exist when inside air was exchanged frequently through the leaks. The inside air remains unchanged for long intervals, permitting pollutants to build up to dangerous levels.

A serious problem is found in use of urea formaldehyde foam insulation, a favorite product for insulating existing houses to protect against heat loss, Breysse says. Formaldehyde gets into the dwelling area from the insulation, causing skin diseases, respiratory problems, asthma, and other health problems.

"There is no doubt that exposure of the general public to formaldehyde is increasing and will continue unless restrictions are forthcoming," Breysse says.

"One can hardly purchase furniture that does not contain substantial quantities of particle board (which contains formaldehyde). The combination of hazardous materials in a tight structure simply allows these materials to build up rather than dilute."

In early January a federal government unit was being urged to institute a nationwide ban on urea formaldehyde foam insulation for health reasons. Critics charged that it may cause cancer. The product was banned in Massachusetts in 1979 and last month was banned in Canada.

Breysse predicts other problems from tight weather stripping of homes.

"Electrostatic air cleaners produce small amounts of ozone that can accumulate to dangerous concentration under minimum entry air conditions. Many people are converting to wood-burning stoves, without adequate ventilation. Dangerous levels of carbon monoxide may result."

Breysse points to studies which found individuals who had been under physician's treatment for more than four years for various health problems that eventually were traced to home air causes.

"Attempts to set standards for the home environment are extremely complicated, but more important, almost impossible to enforce. Now is the time to call a temporary halt to our home energy conservation programs until all aspects of 'building tightening' can be reviewed."

The editorial accompanies a report from a Denver research group detailing the health problems stemming from use of urea formaldehyde foam in insulation.

Drug Information*

Questions and Answers

Can MHPG, a norepinephrine metabolite, serve to predict a response to tricyclic antidepressant?

Differences in urinary MHPG excretion, a major metabolite of NE (norepinephrine), have been advocated as useful for predicting TCAs (tricyclic antidepressant) response. It is proposed that depressed patients who exhibit low urinary MHPG levels respond better to TCAs that primarily enhance NE in the central nervous system (CNS) such as desipramine (sold as Pertofrane) and imipramine (sold as Tofranil), and those who exhibit normal or elevated MHPG levels respond better to serotonin-enhancing TCAs such as amitriptyline (sold as Elavil).[1-5]

Maas et al.[6] found desipramine or imipramine responders excreted smaller amounts of MHPG than nonresponders. Beckmann et al.[5] similarly indicated imipramine responders excreted lower MHPG than nonresponders. In addition, high MHPG excretors responded well to amitriptyline while low excretors did not.

Sacchetti et al.,[7] in contrast, reported four of five men including two very low MHPG excreters responded to amitriptyline. Spiker et al.[8] found no correlation between MHPG excretion and amitriptyline response. They also indicated that the serotonin enhancer, amitriptyline, is metabolized to nortriptyline, an enhancer of NE. Imipramine, predominantly a norepinephrine enhancer, increases serotonin levels as well.[1]

In conclusion, some evidence suggested that patients with low urinary MHPG responded better to imipramine or desipramine, while patients with normal or high urinary MHPG responded better to amitriptyline. It appears the NE and serotonin activity of the metabolites of TCAs may not have been adequately considered in formulating this widely accepted theory.

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6. Maas, J. W., et al.: Catecholamine metabolism, depressive illness and drug response, ibid. 26: 252 (1972).
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Please provide information concerning the differences between prompt phenytoin sodium capsules and extended phenytoin sodium capsules.

The USP reclassified phenytoin sodium capsules as either extended phenytoin sodium capsules or prompt phenytoin sodium capsules and all phenytoin sodium capsules are now labeled as such. This differentiates between capsules having relatively slow dissolution rates and extended delivery, and those having more rapid dissolution rates and prompt delivery.[1] Extended phenytoin sodium capsules are presently available only in the form of Dilantin Kapseals, Parke Davis, which dissolve in water to an extent of 35 percent in 30 minutes, while prompt phenytoin sodium capsules are all the generic phenytoin sodium products and dissolve to an extent of 85 percent or more in the same time period.[2]

While once-a-day dosage for adults with 300 mg. Dilantin (extended phenytoin sodium capsules) may be utilized in place of three divided 100 mg. Kapseals, administration of the prompt phenytoin sodium capsules on a once-a-day basis could result in phenytoin toxicity.[3,4] As of July 1, 1980, regulations required that prompt phenytoin sodium capsules be labeled with the statement, "Not for once-a-day dosing."[1]

When switching from a generic product to Dilantin Kapseals, or vice versa, it is recommended that phenytoin blood levels be carefully monitored. Physicians should also specify, and pharmacists should ascertain, what form of phenytoin sodium capsules a patient is to receive.

1. Extended phenytoin sodium capsules, USP XX—prompt phenytoin sodium capsules, USP XX, in USP Update, vol. 2, No. 3 (May-June) 1980.
2. Monographs on Extended and Prompt Phenytoin Sodium Capsules, in USP XX-NF XV, U.S. Pharmacopeial Convention, Inc., Rockville, Md., (July 1) 1980, p. 621.
3. Abramowicz, M., Ed.: Dilantin vs. generic phenytoin sodium, Med. Let. 22: 49 (June 13) 1980.
4. Monographs on Extended and Prompt Phenytoin Sodium Capsules, USP—Dispensing Information, Rockville, Md., 1980, p. 392.

Is there an interaction between clorazepate and antacids?

Clorazepate (sold as Tranxene and Azene) has similar antianxiety activity to diazepam (sold as Valium). Reports in the literature indicate that antacid therapy significantly decreases absorption of clorazepate.[1] The proposed mechanism of interaction is impaired conversion of the drug to its active form, desmethyldiazepam, as a result of increased stomach pH.[2] This interaction has recently been refuted in newer literature.[3,4]

Earlier in vitro studies that suggested impaired conversion of desmethyldiazepam from clorazepate have not held up in recent clinical trials and in vivo conversion appeared to occur despite the absence of gastric acid.[3]

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*This Question and Answer column is compiled by the International Pharmaceutic Drug Information Center (IDIC) affiliated with the Arnold and Marie Schwartz College of Pharmacy and Health Sciences of Long Island University, 81 DeKalb Avenue, Brooklyn, N.Y. 11201. The Director is Jack M. Rosenberg, Pharm.D., Ph.D., Associate Professor Clinical Pharmacy. The Consultant is Walter A. Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College.

The Center is available from Monday through Friday from 9:00 A.M. to 5:00 P.M. For quick response to your questions, call (212) 622-8989 or (212) 330-2735.

Chun et al.[4] in a randomized, three-period cross-over design investigated the effect of magnesia and alumina suspension on clorazepate in 15 normal, healthy adults who ingested the drug alone and with single and multiple doses of antacid. A trend of slower absorption and lower peak desmethyldiazepam plasma levels initially occurred when clorazepate was administered with antacid. However, there were no significant differences in the extent of total absorption. Clorazepate's plasma levels were similar for all treatments and urinary excretion pattern was likewise comparable. Plasma elimination half-lives of clorazepate and desmethyldiazepam were not affected by antacid therapy.

In conclusion, the extent and completeness of absorption of clorazepate appears not to be significantly influenced by concomitant antacid therapy. It appears that clorazepate may be confidently prescribed with antacids.

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Radiation treatment prolongs survival in lung cancer cases

Treatment of inoperable lung cancer by radiation can more than double the survival time for some individuals, says a report in the October 24/31 Journal of the American Medical Association.

The incidence of lung cancer has tripled in the last generation. Predominately a disease of men, it accounts for 25 percent of all deaths from cancer each year.

Nearly one third of patients with lung cancer are inoperable, James D. Cox, M.D., of the Medical College of Wisconsin, Milwaukee, points out. Many of these individuals are virtually without pain, but they are nevertheless dying from a lung cancer that has already spread too broadly to be removed by surgery.

There has been disagreement among experts as to whether radiation actually is of benefit to these individuals, Dr. Cox says.

In the Milwaukee studies 92 patients with inoperable lung cancer were evaluated. Of 54 who were treated by radiation, 22 percent survived five years. None of the 38 patients with untreated lung cancer lived beyond 27 months, he says.

Eight patients in the treated group were alive and well 53 to 100 months after treatment.

The study shows that patients with inoperable lung cancer having few symptoms can live many years if the tumor is controlled by radiation, Dr. Cox declares.

- Heberden nodes located at the distal interphalangeal joint seem to be independent of knee and hip osteoarthritis (Stecher, R. M.: Heberden's nodes: their relation to other degenerative joint disease, Arch. Phys. Med. 27: 409 (1964)).
- It has been suggested that the type of stress on a joint determines whether or not that joint breaks down. For example, women who have a different form of handgrip from men may be more likely to develop degenerative changes in distal interphalangeal joints (Radin, E. L.: The physiology and degeneration of joints, Semin. Arthritis Rheum. 3: 245 (1973)).
- Knees are involved particularly in overweight women, while hips are more often involved in men, but body weight is not a factor (Leach, R. E., et al.: Obesity: its relationship to osteoarthritis of the knees, Clin. Orthop. 93: 271 (1973)).
- Osteophytes around the hip joint, without joint narrowing does not presage the development of classical hip arthritis (Danielsson, L. G.: Incidence and prognosis of coxarthrosis, Acta Orthop. Scand. 66: 1 (1964)).

- The most prevalent clinically significant pleuropulmonary manifestation of rheumatoid arthritis is probably pleuritis, which may be associated with pleural effusion (Walker, W. C., et al.: Pulmonary lesions and rheumatoid arthritis, Medicine 47: 501 (1968)).
- These effusions are usually exudates with elevated protein concentrations and elevated lactic dehydrogenase (LDH) activity. A characteristic finding is a decrease in glucose concentration secondary to a specific defect in glucose transport across the pleura (Carr, D. T., et al.: Pleurisy with effusion in rheumatoid arthritis, Am. Rev. Respir. Dis. 85: 345 (1962)).
- Rheumatoid factor or rheumatoid factor-like activity may be present in higher titer in these effusions, but such activity may also be found in effusions secondary to bacterial pneumonia, carcinoma, and tuberculosis (Levine, H., et al.: Rheumatoid factor in nonrheumatoid pleural effusions, Ann. Int. Med. 69: 487 (1968)).
- Vasculitis has been implicated in the pathogenesis of both the extra-articular and articular lesions of rheumatoid arthritis, and, uncommonly, there is severe and at times fulminating systemic arteritis (Schmid, F. R., et al.: Arteritis in rheumatoid arthritis, Am. J. Med. 30: 56 (1961)).
- These patients have skin lesions associated with vasculitis and may also exhibit a peripheral neuropathy.
- High titers of rheumatoid factor are present in patients with rheumatoid vasculitis and peripheral neuropathy (Epstein, W. V., et al.: The relation of rheumatoid factor content in serum to clinical neurovascular manifestations of rheumatoid arthritis, Arthritis Rheum. 2: 250 (1959)).
- It should not be forgotten that peripheral neuropathy may also occur in rheumatoid arthritis as a result of entrapment or as minimal symptomatic digital neuropathy (Pallis, C. A., et al.: Peripheral neuropathy in rheumatoid arthritis, Brit. M. J. 1: 1141 (1965)).
- Atlantoaxial subluxation may occur in rheumatoid arthritis, and although patients with this problem may remain asymptomatic, surgical intervention of those with evidence of cord compression may be life-saving (Ferlick, D. C., et al.: Surgical treatment of symptomatic unstable cervical spine in rheumatoid arthritis, J. Bone & Joint Surg. 57: 349 (1975)).

- Benign exertional headaches may occur after running, lifting, sneezing, or coughing, last from 5 minutes to 24 hours, and may be localized to one side or both sides. They are described as throbbing, stabbing, or producing moderate pressure. They have been found to respond to treatment with indomethacin, a potent inhibitor of prostaglandin synthesis.

- Stroke-age patients with apparent transient ischemic attacks (TIAs) but normal angiograms may be experiencing transient migrainous accompaniments of late onset even when there is no history of headache.
- Migrainous episodes generally last from 15 to 25 minutes, but 95 percent of all transient ischemic attacks are over in 15 minutes.

- The alcohol-induced pain is usually described as intense, occuring a variable amount of time after alcohol ingestion, and can remain localized. The mechanism for pain production remains elusive. Local vasodilatation and congestion may be the explanation (Bichel, J., et al.: Alcohol pain in Hodgkin's disease, Lancet 1: 764 (1953)).
- The small quantities of alcohol required to produce pain, the failure of other vasodilators to produce a similar reaction, and the successful prophylaxis with phenylbutazone, prednisone, and aspirin suggest that undefined mediators are potentially involved (Ershler, W. B., et al.: Alcohol-induced genital pain in recurrent Hodgkin's disease, J.A.M.A. 242: 1064 (Sept. 7) 1979).

- Poland's syndrome is an embryologic defect of mesoderm which consists of congenital absence of the pectoral muscle, syndactyly, brachydactyly, hypoplasia of some elements of the corresponding upper extremity, thoracic cage defect, absent nipple, and axillary web (Poland, A.: Deficiency of the pectoral muscles, Guy's Hosp. Rep. 6: 191 (1841)).

- Physicians usually think of angina pectoris as pain. It is quite commonly described as a disagreeable feeling or discomfort in the chest. Patients often describe the sensation as burning, heavy, pressing, or tight. Similarly, the complaint of intermittent claudication is commonly thought by physicians to consist of pain. It is commonly, however, described as a sense of fatigue in the muscles or legs.

- Mesenteric vascular disease can mimic regional ileitis clinically and radiologically (Wang, C. C., and Reeves, J. D.: Mesenteric vascular disease, Am. J. Roentgenol. 83: 895 (1960)).
- The causes of mesenteric vascular disease that lead to serious intestinal damage include dissecting aneurysm of the aorta, vasculitis, a poor-perfusion state without major-vessel occlusion, and occlusion secondary to arterial embolism or thrombosis, or venous thrombosis.

— About half the cases of mesenteric vascular disease have infarction without arterial or venous occlusion (Ottinger, L. W., et al.: A study of 136 patients with mesenteric infarction, Surg. Gynec. & Obst. **124:** 251 (1967)).

— The most common kind of infarct of intestines is usually associated with cardiac disease that produces a sustained decrease in the cardiac output, frequently associated with moderate or severe atherosclerotic narrowing of the mesenteric arteries. In patients with embolism the source is generally the heart, involved by myocardial infarction or atrial fibrillation, or both.

— In the latter situation digoxin, which may cause splanchnic vasoconstriction, may be a factor.

— Mesenteric infarction secondary to occlusion in a major vessel has been increasing in frequency (Williams, L. F., Jr.: Vascular insufficiency of the intestines, Gastroenterology **61:** 757 (1971)).

— Ischemic changes in the intestinal tract have been implicated in many settings including shock, peritonitis, cardiac surgery, radiation injury, and inflammatory bowel disease. Examples of these changes are regional enteritis and ulcerative colitis.

— Schönlein-Henoch syndrome is a vasculitis characterized by nontraumatic hemorrhage, with or without edema, in the skin, subcutaneous tissue, joints or viscera, or in any such combination associated with a normal platelet count. This is typically a disease of children but may occur at any age.

— In contrast to most other forms of purpura, the Schönlein-Henoch syndrome is often not severe, and purpura is certainly minor even occasionally absent. The purpuric lesions may be simple with normal surrounding skin, or they may be raised. Ecchymosis may occur, become bullous, and ulcerate. The skin lesions most commonly involve the extensor surfaces of the limbs, the buttocks, and the lower back, often appearing in crops. They may be preceded by lesions resembling those of erythema multiforme, being initially pink, then red and papular, and finally purpuric; urticaria and edema may also be seen.

— Yersinia enterocolitica and Yersinia pseudotuberculosis enteritis may simulate noninfectious inflammatory bowel disease, particularly when associated with erythema nodosum and arthritis (Leino, R., et al.: Yersinosis as an internal disease, Ann. Int. Med. 8: 1458 (1974)).

— Injured tissues, such as the cartilage, may be capable of regeneration, but the forces playing on the joint may insure that regeneration will not be a return to the premorbid state. The joint may deform instead (Ehrlich G. E.: Int. Med. News, 11: 3 (Nov. 15) 1978).

— Of the many causes of acute respiratory failure in chronic obstructive pulmonary disease, acute bronchitis is by far the most common. Pneumonia, bronchiolitis, pulmonary embolism, congestive heart failure, sedative drugs, and uncontrolled oxygen therapy are other causes.

— Carotid artery obstruction with symptoms in the upright position may suggest postural hypotension (Crevasse, L. E., and Logue, R. V.: Carotid artery murmurs, J.A.M.A. **167:** 2177 (1958)).

— Fisher, in 432 consecutive unselected autopsies in which the brain and carotid arteries were completely examined, found a total of 41 patients with partial or complete occlusion of one or more carotids. In contrast, there were only 12 cases of small-vessel occlusion adjacent to the circle of Willis in this group. This is in close agreement with recent clinical experience that major arterial insufficiency to the head, namely carotid and basilar, is probably as common as the "routine stroke" (Fisher, M.: Occlusion of carotid arteries, A.M.A. Arch. Neurol. & Psychiat. **72:** 187 (1954)).

— The intracranial systolic bruit, heard best over the eyeball, represents narrowing of the intracranial portion of the internal carotid at the siphon and is transmitted and best heard over the ipsilateral eyeball (Cohen, J., and Miller, S.: Eyeball bruits, New England J. Med. **255:** 459 (1956)).

— Interestingly, about 15 percent of patients with complete occlusion of the carotid artery may have no neurologic symptoms (Fisher, M., 1954).

— Unexplained and seemingly psychic noises in the head may be related to turbulence of blood flow of a partially obstructed carotid artery (Fisher, C. M.: Cranial bruit associated with occlusion of internal carotid artery, Neurology **7:** 299 (1957)).

— The most common site of atheromatous involvement is at the carotid bulb (Johnson, H. C., and Walker, A. E.: Angiographic diagnosis of spontaneous thrombosis of internal and common carotid arteries, J. Neurosurg. **8:** 631 (1951)).

— Asymptomatic patients with carotid artery stenosis may go on to have frank strokes without an intervening episode of transient ischemia (Javid, H., et al.: Natural history of carotid bifurcation atheroma, Surgery **67:** (1970)).

— A bruit appears at about 50 percent stenosis of the artery, and when a midcarotid bruit is heard, 90 percent of these arise from the internal carotid (ibid.).

— When carotid bruits are correlated with subsequent angiograms, 65 percent are associated with stenotic lesions of the carotid arteries (David, et al.: A correlation of neck bruits and arteriosclerotic carotid arteries, Arch. Surg. **107:** 729 (1973)).

— In this series, patients with transient ischemic attacks were associated with carotid bruits and carotid stenosis whereas 25 percent of the carotid arteries with stenotic lesions did not have bruits (David, T. E.: ibid.)

— The upper limit of normal for the Q-T interval when corrected for heart rate is usually given as 0.44 second. Prolongation of the Q-T interval may be associated with ventricular arrhythmias, syncope, and sudden death (Schwartz, P. J., et al.: The long Q-T syndrome, Am. Heart J. **89:** 378 (1975)).

— The delayed repolarization phenomenon has been classified into two types, primary and idiopathic, with and without inheritable features. These types acquire distinguishable structures derived from, or consequent to, any one of the following: drugs such as quinidine, procainamide, phenothiazines, tricyclic antidepressants; conditions such as hypokalemia, hypomagnesia, hypocalcemia, hypothermia, cerebral vascular disease and/or neck surgery (ibid.)

— The inheritable long Q-T interval syndrome may or may not be accompanied by congenital deafness. It has been estimated that approximately 0.3 percent of patients with congenital neural deafness have electrocardiographic evidence of Q-T interval prolongation (Schwartz, P. J., et al.: The long Q-T syndrome, Am. Heart J. 89: 378 (1975)).

— Probably the most common cause of syncope is the hyperventilation syndrome. The overbreathing is usually the result of an underlying anxiety but may be due to central stimulation from drugs. This is one syncopal attack which may have its onset in the recumbent position.

— Fainting may result from exercise of an upper extremity when there is marked proximal obstruction of the ipsilateral subclavian artery. This occurs because of retrograde flow down the vertebral artery into the subclavian artery distal to the obstruction, subclavian steal syndrome. The retrograde flow occurs at the expense of the cerebral circulation (Reivich, M., et al.: Reversal of blood flow through the vertebral artery and its effect on cerebral circulation, New England J. Med. 265: 878 (1961)).

— Syncope may be a symptom of pulmonary embolism. This may be due to an arrhythmia when there are multiple small pulmonary emboli, or to reduced pulmonary flow when there is a massive pulmonary embolism (Soloff, L. A., et al.: Acute pulmonary embolism, Am. Heart J. 74: 710 (1967)).

— Myxoma of left atrium can produce syncope by obstructing flow of blood from left atrium to left ventricle. Physical findings of atrial myxoma frequently mimic mitral stenosis. Peripheral embolization in the presence of a normal sinus rhythm, elevated sedimentation rate, and increased gamma globulin are helpful laboratory findings; but the diagnosis is established by echocardiography.

— Probably fewer than 4 percent of hypothyroid patients have TSH (thyroid stimulating hormone) deficiency from pituitary failure, secondary hypothyroidism (Watanakunakorn, C., et al.: Myxedema: a study of 400 cases, Arch. Int. Med. 116: 183 (1965)).

— Although pituitary tumor and post partum necrosis are the major causes, a variety of miscellaneous etiologies exist for TSH deficiency. Hypothalamic damage or failure, such as "tertiary hypothyroidism" is responsible for a minority of cases of TSH deficiency in adults.

— It is imperative to consider the possibility of TSH deficiency in every hypothyroid patient. Missing the correct diagnosis may lead to visual loss and other local consequences of pituitary tumor enlargement.

— In addition, treating hypothyroidism with thyroid hormone without correcting glucocorticoid deficiency may precipitate adrenal crisis.

— Certain clinical features may suggest that hypothyroidism is due to TSH deficiency, such as fine "cigarette paper" skin, absence of edema, absent goiter, hypopigmented nipples, absent axillary and pubic hair, low level of cholesterol, hypoglycemia, hyponatremia, absence of antithyroid antibodies, abnormal skull films, and local effects of tumor.

— Myxedema should be kept in mind in every case of carpal tunnel syndrome.

— Erysipeloid erythema, a red swelling that resembles cellulitis, is seen in patients with gout and in familial Mediterranean fever.

— Arthralgias are common in familial Mediterranean fever and persistent arthritis is rare, but in some cases it may be crippling.

— Chloramphenicol is the first choice for *Haemophilus influenzae* infection in areas where resistant organisms are known to exist. After identification of the *H. influenzae* strain, it may be possible to switch to ampicillin.

— Because meningococcal meningitis has been responsible for local epidemics, prophylactic treatment of family members and other close contacts of patients is recommended. Alternative prophylactic agents are sulfadiazine, rifampin, and minocycline.

— Sulfonamides have been less useful for this purpose in the last generation because of the prevalence of resistant strains, but the emergency of type B as the predominant infecting agent in the civilian population and type Y in the military (both agents are highly sensitive to sulfadiazine) has created a new role for that therapeutic agent.

— The rapid emergence of organisms resistant to rifampin has made it less effective for prevention, and side-effects of minocycline may outweigh the benefits for the relatively low-risk individuals.

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An added complication... in the treatment of bacterial bronchitis*

Increasing incidence of ampicillin resistance in Haemophilus influenzae
Ampicillin Resistant Haemophilus influenzae
H. influenzae
S pneumoniae

Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE)

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e g pressor amines, antihistamines, or corticosteroids

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms Careful observation of the patient is essential If superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly)

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below

Gastrointestinal symptoms occur in about 2 5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90)

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100) Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported Anaphylaxis has also been reported

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients)

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103080P]

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* Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae* [8]

Note Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information

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Additional information available to the profession on request from Eli Lilly and Company Indianapolis, Indiana 46285

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Epithelioid Sarcoma Originating on the Back

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The malignant tumor, epithelioid sarcoma, was named and described by Enzinger[1] in 1970. The name reflects the unusual histology which simulates both epithelial tumors and granulomas. Since 1970 there have been numerous case reports confirming Enzinger's findings, expanding the light and electron microscopic description, and speculating on the histogenesis of this tumor.[2-7]

The present case represents the first example of an epithelioid sarcoma originating on the back.

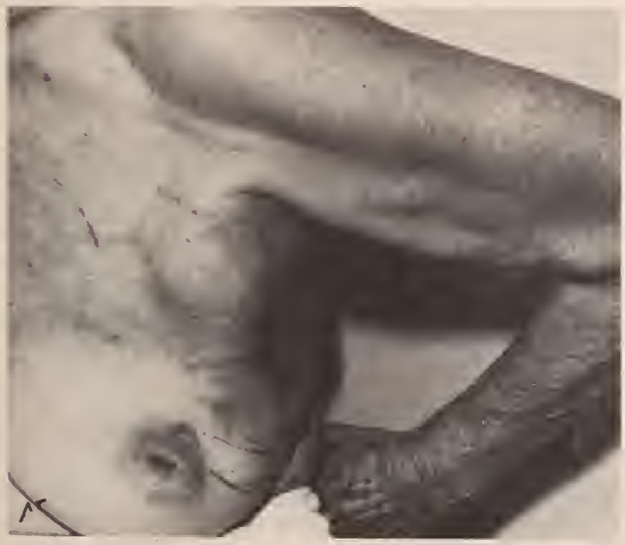
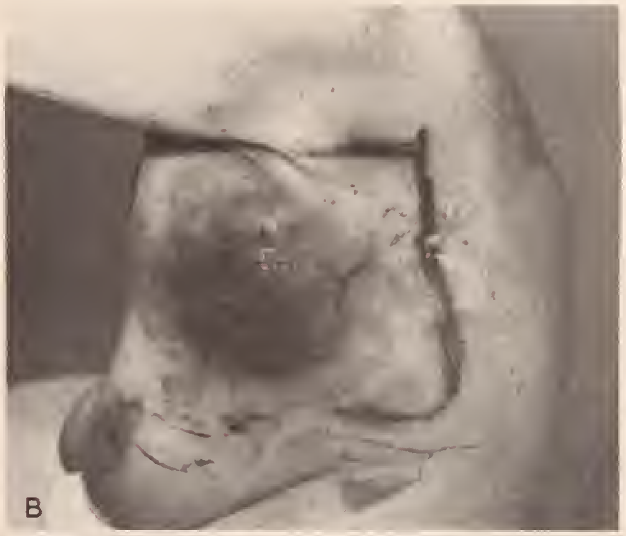


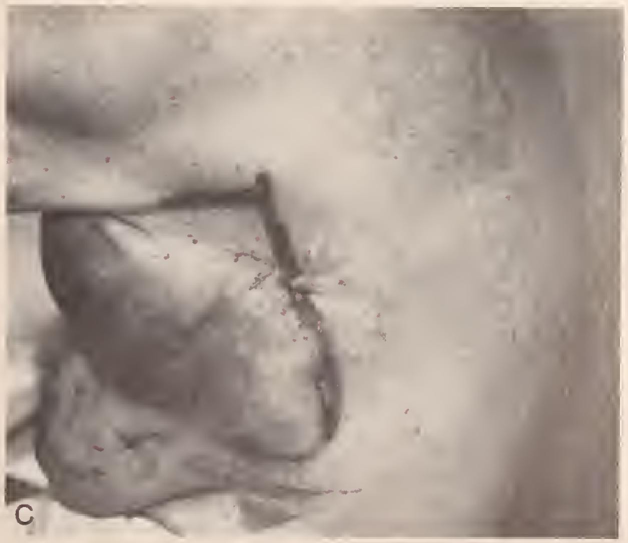
FIGURE 1. (A) Anterior view of left axillary mass. (B) Lateral view of left axillary mass showing radiation field. (C) Lateral view of mass. Note healed scar over left shoulder at site of initial excision.

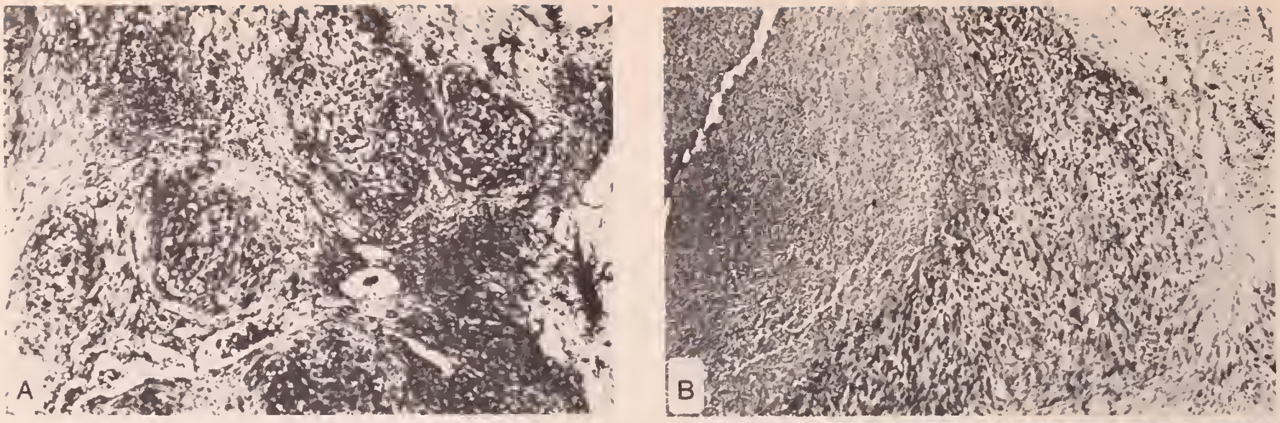
Case report

A 75-year-old white female was admitted to The Brookdale Hospital Medical Center in November, 1978, with a gradually enlarging left axillary mass that had been present for six months. One year previously, at a different hospital, a nodule which was diagnosed as squamous carcinoma was excised from her back over the left scapula. No postoperative therapy was given.

Physical examination revealed a 10 by 10-cm. indurated mass fixed to the lateral border of the left breast and axilla (Fig. 1A,B). Marked erythema of the overlying skin was present. A well-healed surgical scar was present over the left scapula without evidence of recurrent local disease (Fig. 1C). Investigations included chest x-ray, bone survey, bone







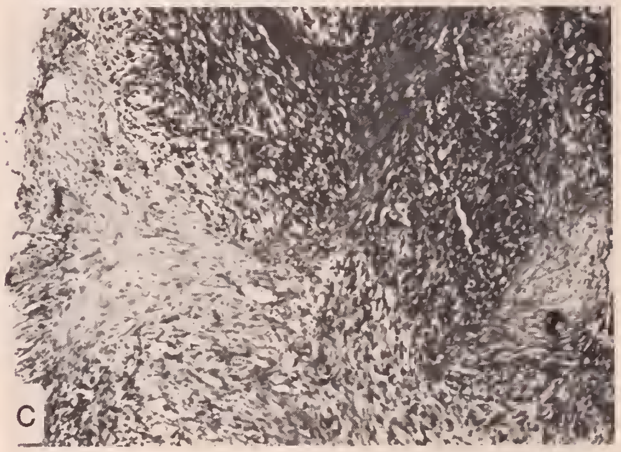


FIGURE 2. (A) Low power magnification showing characteristic multinodular pattern of tumor. (B) Tumor nodules exhibiting areas of central necrosis. (C) Bands of collagen separating tumor nodules (hematoxylin and eosin stain, original magnification, × 40).

marrow aspiration and biopsy, and bone scan, all of which gave negative findings. Results of mammography suggested extensive lymphatic involvement of the left breast. A liver scan showed slightly irregular uptake; a closed liver biopsy gave normal results.

A wedge biopsy of the mass was performed. Microscopic findings consisted of a multinodular pattern of cells (Fig. 2A) with widespread focal necrosis involving the central portion of the node (Fig. 2B). In other areas, bands of collagen extended between tumor nodules (Fig. 2C). The cellular elements varied from plump spindle cells to large round or oval cells "epithelioid" in appearance with abundant acidophilic cytoplasm (Fig. 3). These two patterns intermingled without clear-cut demarcation. Giant cells were not seen but mitoses were frequent. Intracellular mucin was not seen. Electron microscopic findings included cells with an ovoid irregular, sometimes indented nucleus with scanty, finely scattered chromatin and one or two small nucleoli and abundant cytoplasm with a moderate number of mitochondria and variable amounts of rough-surfaced endoplasmic reticulum. A diagnosis of epithelioid sarcoma was made and confirmed by outside consultation. The identical histologic pattern was found on review of slides from the previously excised lesion of the back.

The patient refused debulking surgery with skin grafting as well as aggressive chemotherapy. The patient received cobalt radiation therapy to the mass, 5,000 rads over a 5 week period to the left lateral axilla, which was followed by two courses of oral

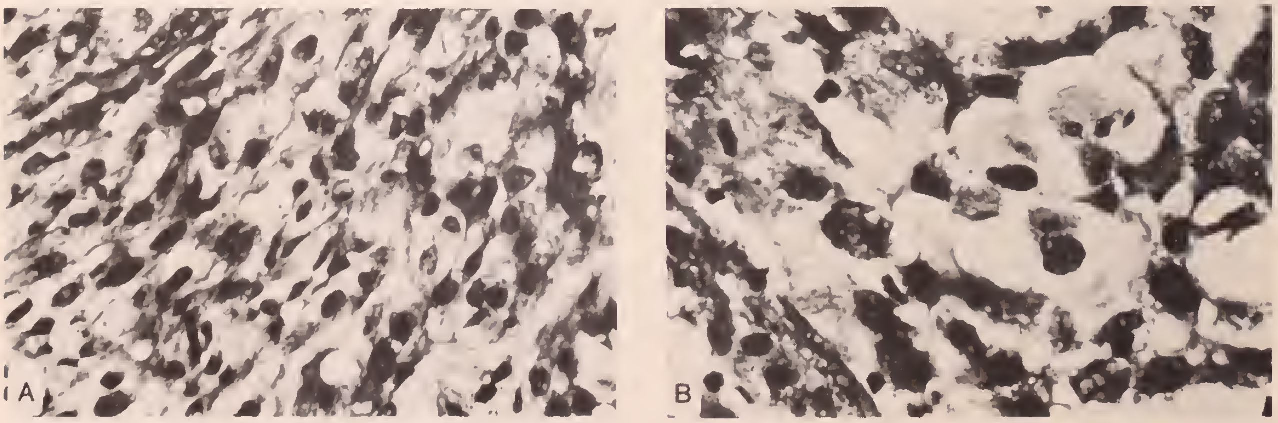


FIGURE 3. (A) Gradual transition between spindle cell elements and polygonal cells (hematoxylin and eosin stain, original magnification, × 100). (B) Higher magnification demonstrating round or oval cells with abundant eosinophilic cytoplasm (epithelioid elements). (Hematoxylin and eosin stain, original magnification, × 400).

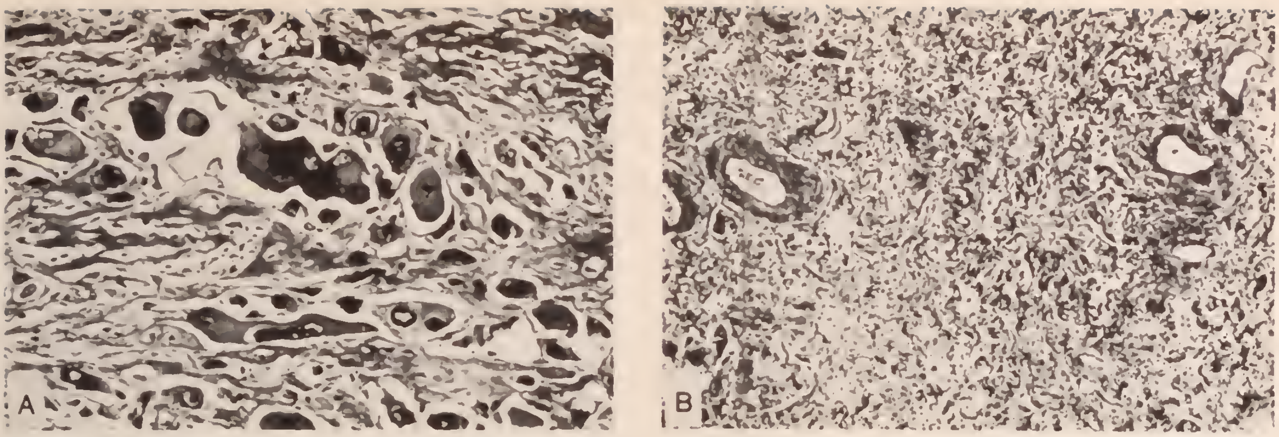


FIGURE 4. (A) Tumor post mortem shows multinucleated giant cells and monster cells with bizarre nuclei (hematoxylin and eosin stain, original magnification, × 200). (B) Lung sections demonstrating extensive intra-alveolar and interstitial fibrosis and focal round cell infiltration (hematoxylin and eosin stain, original magnification, × 40).

methotrexate. The mass decreased in size by 15 to 20 percent. The patient then began to experience progressive shortness of breath and chest x-ray revealed diffuse patchy bilateral infiltrates. She was afebrile and all cultures were negative. She failed to respond to steroid and diuretic therapy and died of respiratory insufficiency.

Postmortem examination was limited to small portions of lung tissue and a portion of the tumor. The microscopic appearance of the tumor showed marked pleomorphism with numerous multinucleated giant and monster cells containing bizarre nuclei and deposits of collagen between tumor nodules (Fig. 4A). The lung sections disclosed no tumor but severe interstitial and intra-alveolar fibrosis (Fig. 4B) with focal round cell infiltration consistent with methotrexate pneumonitis was present.

Review of literature

Enzinger[1] in 1970 named and described the malignant tumor called epithelioid sarcoma in a publication detailing 62 cases accumulated from the files of the Armed Forces Institute of Pathology over a 25 year interval. Review of the literature prior to Enzinger's report has uncovered other probable examples of epithelioid sarcoma. Laskowski[8] in a Polish article in 1961 described 7 cases of an entity entitled "aponeurotic sarcoma" which appears to be identical with epithelioid sarcoma. In 1968 Bliss and Reed[9] described 4 cases of epithelioid sarcoma affecting tendon sheaths of hands and wrists. Following Enzinger's report the tumor received widespread recognition as a distinctive tumor type and approximately 70 additional cases have been reported.[2,5–7,10–23]

Part of the fascination with this uncommon tumor lies in its ability to simulate multiple benign and malignant entities resulting in a wide spectrum of recorded designations. Of the various benign disorders mistakenly assigned, granulomatous inflammation, nodular tenosynovitis, nodular fasciitis and chronic nonspecific inflammation were most frequent. The most common malignant diagnoses included synovial sarcoma, fibrosarcoma, malignant melanoma, squamous cell carcinoma, and angiosarcoma.

The majority of reported cases of epithelioid sarcoma have been primary on the extremities. Two have begun on the penis,[5,24] several on the scalp, one on the vulva,[21] and one on the abdominal wall. This is the first report of epithelioid sarcoma originating on the back.

Prat, Woodruff, and Marcove[22] and others have obtained a history of antecedent injury in several cases. The patient reported herein had no known history of injury at the primary site.

Diagnostic appearance

The most common presentation of epithelioid sarcoma among the reported cases has been that of a superficial nodule of hard consistency averaging 2.5 cm. in diameter. These were only occasionally mildly painful or tender. A less common presentation is that of a large, deeply seated tumor averaging 6 cm. in diameter. The larger tumors produced a variable degree of pain and dysfunction. Epithelioid sarcomas have commonly been found to grow slowly for several months to years before medical attention is sought. The average duration of symptoms prior to seeking medical attention is 8 years with delay of up to 28 years having been reported.[22] Survival from onset of symptoms to death from tumor is approximately seven years. Prat, Woodruff, and Marcove[22] could not find a significant correlation between the form of presentation (superficial, palmar, and deep-seated tumors) or size of the primary tumor and survival.[22]

This patient's presentation was typical for epithelioid sarcoma: the tumor appeared as an asymptomatic nodule, 2 cm. in diameter, slowly growing over a two year period. A further delay of 15 months followed the initial diagnosis of squamous cell carcinoma before the correct diagnosis was made following rapidly progressive growth of an axillary metastasis.

Recurrence after local excision, vascular invasion, and lymph node metastasis have been found to be adverse prognostic factors.[22] The incidences of recurrence, usually along fascial planes and/or tendon sheaths, have ranged from 63 to 92 percent in various series. Regional lymph node metastases have been reported in 11 to 42 percent of cases.[1,6,11,17,22]

Hematogenous metastases occur most commonly to the lungs or pleura. Prat, Woodruff, and Marcove[22] emphasized the uniformly poor prognosis associated with vascular invasion.

Pathology

The gross pathology findings reported in the literature have varied according to the location of the primary tumor. Those occurring distally in extremities first appeared as superficial small nodules, 0.5 to 2.5 cm. in diameter, surrounded and intersected by dense fibrous bands. The cut surfaces were gray-white to gray-tan with central foci of necrosis and hemorrhage. Palmar tumors have been firm, gray-tan, multinodular masses 7 to 10 cm. in diameter which diffusely infiltrated soft tissue of the hand, encasing flexor tendons and following synovial sheaths. Tumors occurring on the proximal extremities and neck were large, usually 5 to 10 cm. in diameter, deep-seated, tan to gray-white, and intersected by dense fibrous bands. A gross pathology report was not available for this patient's primary tumor.

The light microscopy findings of epithelioid sarcoma were characterized by Enzinger[1] who found the cellular elements of the tumor nodules to range from plump spindle cells to large round or polygonal cells with deeply acidophilic cytoplasm bearing a close resemblance to epithelioid cells or squamous cells. The various cell types always merged imperceptibly without a sharp separation of the two cell types. Extensive desmoplasia, especially the deposition of large amounts of birefringent, hyalinized collagen about the tumor cells contributed to the striking acidophilia of the tumor tissue. Review of the primary tumor and the axillary mass biopsy in this patient revealed identical histology, with cells growing in a disorderly array, showing no uniform pattern of polarity.

The arrangement of epithelioid cells in strands within a collagenous stroma may suggest squamous-cell carcinoma as occurred in this patient. The varying appearance of epithelioid sarcoma and its resemblance to various other tumors have caused other problems in differential diagnosis. When cells occur in single-file arrangement in broad bands of collagen, metastatic scirrhous adenocarcinoma may be simulated. With prominence of spindle cells a mistaken diagnosis of fibrosarcoma may be made. The admixture of round and spindle cells, when accompanied by collagenous stroma which is hyalinized and an occasional binucleate or multinucleate epithelioid cell, may resemble cellular fibrous xanthoma of tendon sheath. When the epithelioid cells are predominant malignant histiocytoma may be suggested. Confusion with synovial sarcoma may be produced in cases where clusters of epithelioid cells are arranged in gland-like manner in association with a spindle-cell component in what appears to be a bimorphic pattern. As Bryan et al.[11] observed, the correct diagnosis of epithelioid sarcoma may remain obscure until after multiple recurrence of the lesion, or, as in our case, until a metastatic lesion is examined.

Enzinger[1] in his original report studied one of these epithelioid sarcomas by electron microscopy. He described filamentous material within the hyaloplasm. Interdigitations were seen by Frable et al.[3] who found more prominent the space between tumor cells associated with the large microvilli. Bloustein, Silverberg, and Waddell[10] reported electron microscopy findings from their patient and reviewed the literature regarding the ultrastructure of this tumor. They found two cell types to be present. The more characteristic cell, designated a "dark cell," was characterized by darker appearance of the cytoplasm, in which dilated rough endoplasmic reticulum closely surrounded small, round-to-ovoid mitochondria and numerous microfibrils arranged in haphazard patterns were present. The "light" cells differed from the "dark" cells only by having less densely packed microfibrils and less dilated rough endoplasmic reticulum.

Histogenesis

While the clinical and pathologic features of epithelioid sarcoma are well documented, theories concerning its histogenesis have remained speculative. Enzinger[1] suggested the fibroblast, histiocyte, or synovioblast as the cell of origin. Light microscopic observations led Soule and Enriquez[23] to consider it a variant of histiocytoma. Fisher and Horvat's[2] electron microscopic study suggested the fibroblast. Frable et al.[3] observed ultrastructural similarities to two tumors: synovial sarcoma and fibrous histiocytic sarcomas, as well as to normal synovial membrane cells. Gabbiani et al.,[4] Santiago, Feinerman, and Lattes,[6] and Patchefsky, Soriano, and Kostianovsky[20] presented evidence supporting epithelioid sarcoma as a variant of synovial sarcoma.

Bloustein, Silverberg, and Waddell[10] offered an alternative view. They reviewed the evidence for a close functional and morphologic relationship between synovial cells and histiocytes. They noted that both are capable of acting as facultative fibroblasts and that both share a common embryologic precursor. They concluded that it might be more accurate to regard epithelioid sarcoma as a malignant tumor of relatively undifferentiated mesenchymal cells remaining in adult tissue and capable of differentiating along histiocytic or synovial lines.

Treatment

The various cases reported in the literature have been treated by surgery alone, or surgery combined with radiotherapy and/or chemotherapy. Local excision of tumor frequently fails to eradicate the cancer, resulting in early recurrence. Radical amputation or an exceptionally wide en bloc excision as early as possible has thus been recommended by most authors.[1,6,11,22] As the incidence of metastasis is high, attention should be given to the development of an effective chemotherapeutic regimen. In those cases reported in which chemotherapy has been utilized,[1-3,5,10] mention of specific therapy has only rarely been made.[10] No chemotherapeutic recommendations can be derived from the reported series.

A combination of radiation therapy and methotrexate appeared to contain, at least temporarily, further growth of the tumor in the case reported in this paper. However, death from pulmonary insufficiency secondary to methotrexate toxicity occurred before long-term follow-up could be made.

Conclusion

In conclusion, this paper extends the picture of an unusual malignancy which may present diagnostic difficulties to both the pathologist and clinician.

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Noise is termed serious environmental health problem

The world around us is often much too noisy.

Noise can be more than just an annoyance. It can cause emotional and physical health problems, notably, deafness.

The recognition of noise as an environmental health problem has not received sufficient attention in this country, says an American Medical Association booklet, "The Physician's Guide to Noise Pollution."

The AMA booklet calls for physicians to become knowledgeable about the medical consequences of excessive noise, support necessary legislation to reduce the problem, and promote effective and well-conceived programs aimed at noise control and prevention.

As far back as 1938, an article in the Journal of the American Medical Association noted that "the multiple and insidious ill effects of noise constitute an inadequately recognized, baneful influence on lives of millions of persons throughout the country."

And in the summer of 1980, the Journal once again hit at the noise hazard, pointing out that "The constant bombardment by noise is more than we were ever meant to hear." The 1980 article calls for banning all ambulance sirens as unnecessary noise that actually contributes little to the well being of the patient being transported.

In the industrial and military worlds, high decibel measurements are found in diesel engine rooms, armored personnel carriers, scraper-loaders, compactors of trash, riveting machines, textile looms, farm tractors, and newspaper presses.

Around the community, sound reaches high levels from emergency vehicle sirens, thunderclaps, jet planes, power lawnmowers, compressors, rock drills, and motorcycles.

In the home the worst offenders are radios and stereos turned up on rock and roll bands. Food blenders, garbage disposals, dishwashers, vacuum cleaners, and loud conversation are added home noise sources.

The damage usually is insidious. Early noise-induced hearing losses pass unnoticed unless they are detected by suitable hearing tests, the AMA booklet points out. As exposure to noise continues, hearing loss becomes greater.

Electronically amplified rock-and-roll music may lead to hearing loss, the AMA declares. Rock music often is heard at levels of 100 or more decibels. Many musicians and some of the more dedicated fans are partially deaf.

In addition to hearing loss, loud noise also brings an increase in blood pressure and contributes to stress and annoyance. Persons suffering from heart trouble, asthma, ulcers, and upset stomachs could be adversely affected.

Action and thought processes are adversely affected and the effort of talking over loud noise brings fatigue. Emotional disturbances are aggravated.

Changes in design of machines and equipment can reduce noise. Quieter engines may be possible, and home appliances could be designed for quieter operation.

Modifying of uses of equipment can help. Airlines can alter flight techniques to reduce noise near airports, and can reduce takeoffs and landings during bedtime hours. Truck routes may be diverted away from residential areas.

The individual also can protect himself somewhat. Suitable earmuffs, earplugs, or helmets provide substantial protection. Cotton wads in the ears won't help much.

continued on page 780

Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of sympto
anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated
stress of everyday life usually does not require treatment with an anxiolytic.
Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by sy
atic clinical studies. Reassess periodically usefulness of the drug for the individual patient

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glauco

Warnings: Not recommended in primary depressive disorders or psychoses. As with all
acting drugs, warn patients not to operate machinery or motor vehicles, and of diminishe
erance for alcohol and other CNS depressants.
Physical and Psychological Dependence: Withdrawal symptoms like those noted with
turates and alcohol have occurred following abrupt discontinuance of benzodiaze
(including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating).
tion-prone individuals, e.g. drug addicts and alcoholics, should be under careful survei
when on benzodiazepines because of their predisposition to habituation and depend
Withdrawal symptoms have also been reported following abrupt discontinuance of be
azepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.
For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid
sedation. Terminate dosage gradually since abrupt withdrawal of any antianxiety agen
result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomn
occasional convulsions. Observe usual precautions with impaired renal or hepatic fu
Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lora
has not been shown of significant benefit in treating gastrointestinal or cardiovascular c
nent. Esophageal dilation occurred in rats treated with lorazepam for more than 1 y
6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human thera
dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 m
of first observation. Clinical significance is unknown; but use of lorazepam for prol
periods and in geriatrics requires caution and frequent monitoring for symptoms of upp
disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some ha
elevations of LDH. As with other benzodiazepines periodic blood counts and liver functio
are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depr
effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emer
rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of r
Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastros
malformed skull and microphthalmia) were seen in drug-treated rabbits without relation
dosage. Although all these anomalies were not present in the concurrent control grou
have been reported to occur randomly in historical controls. At 40mg/kg and higher, the
evidence of fetal resorption and increased fetal loss in rabbits which was not seen at
doses. Clinical significance of these findings is not known. However, increased risk of co
tal malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepa
meprobamate) during first trimester of pregnancy has been suggested in several s
Because use of these drugs is rarely a matter of urgency, use of lorazepam during this
should almost always be avoided. Possibility that a woman of child-bearing potential
pregnant at institution of therapy should be considered. Advise patients if they become
nant to communicate with their physician about desirability of discontinuing the d
humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam
glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like
benzodiazepines. As a general rule, nursing should not be undertaken while on a drug
many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and ge
disappear on continued medication or on decreasing dose. In a sample of about 3,500 a
patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness
weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depressio
sea, change in appetite, headache, sleep disturbance, agitation, dermatological sympto
function disturbance, various gastrointestinal symptoms and autonomic manifestation
dence of sedation and unsteadiness increased with age. Small decreases in blood p
have been noted but are not clinically significant, probably being related to relief of anxie

Overdosage: In management of overdosage with any drug, bear in mind multiple agen
have been taken. Manifestations of overdosage include somnolence, confusion and
Induce vomiting and/or undertake gastric lavage followed by general supportive care, m
ing vital signs and close observation. Hypotension, though unlikely, usually may be co
with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determin

Ativan® Ⓘⓥ for (lorazepam) Anxiety

Dosage: **Individualize for maximum beneficial effects. Increase
gradually when needed, giving higher evening dose before increa
daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; do
may vary from 1 to 10mg/day in divided doses. For elderly or d
tated, initially 1-2mg/day; Insomnia due to anxiety or transient s
tional stress, 2-4mg h.s.**

How Supplied: **0.5, 1.0 and 2.0mg tablets.**

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Four practical reasons to prescribe Ativan (lorazepam)Ⓒ for Anxiety

1 No interaction with more than 300 drugs[†]

In clinical studies, Ativan was given concomitantly with hundreds of medications, including gastrointestinal and cardiovascular, with no reported interactions. Whereas the interaction of diazepam and cimetidine has been shown to cause increased sedation in patients taking both drugs, the clearance of Ativan is not delayed by Tagamet.[‡]

2 Lets most patients stay active

Long-acting benzodiazepines have long-actin metabolites with activity which can produce excessive accumulation that may lead to unwante sedation. Ativan® has no active metabolites, reaches steady state in 2 to 3 days and usually do not cause oversedation. Also, the shorter half-life Ativan is consistent with b.i.d. dosage, so drug hangover is seldom a problem the next morning.

3 Not appreciably affected by aging

Unlike the long-acting benzodiazepines—diazepam Ⓒ, chlordiazepoxide Ⓒ, clorazepate Ⓒ and prazepam Ⓒ—the metabolism and clearance of Ativan are not appreciably affected by the aging process.

4 Not significantly affected by liver dysfunction

Ativan® is metabolized in one simple step to an inactive glucuronide; its absorption and excretion are not significantly altered by cirrhosis or hepatitis. By contrast, the metabolism of diazepam and chlordiazepoxide has been reported to be significantly altered in patients with liver dysfunction.

See important information on following page.

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[*] Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic.

[†] All benzodiazepines, however, produce additive effects when given with CNS depressants, such as barbiturates or alcohol.

[‡] Tagamet (cimetidine) is a registered trademark of Smith Kline & French Laboratories, Division of SmithKline Corporation.

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Spontaneous Remission of Erythroleukemia Following Interstitial Pneumonia

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Spontaneous remission of erythroleukemia is rare.[1] We describe a patient with adenocarcinoma of the breast who was treated with radiation and then with melphalan and subsequently developed erythroleukemia. A spontaneous remission of the latter appeared following acute interstitial pneumonia.

Case report

A 73-year-old woman was operated on in 1974 for adenocarcinoma of the breast. Radiation therapy totalling 1,500 rads and melphalan for one year totalling 300 mg. were the mainstay of treatment until September, 1979, when she was admitted for the first time to our department. She showed extreme weakness, generalized purpura, and pancytopenia. There was neither hepatosplenomegaly nor enlargement of the lymph nodes.

The hemoglobin was 6 Gm. per deciliter, the white blood cell count 1,500 per cubic millimeter with 3 percent blasts, 5 percent myelocytes, and 5 percent metamyelocytes. The platelet count was 10,000 per cubic millimeter, and 50 percent normoblasts were seen in the peripheral blood smear. The pertinent blood chemistry examinations revealed: bilirubin 1.7 Gm. per deciliter (direct 1.3 Gm. per deciliter), lactic dehydrogenase 549 I.U., leukocyte alkaline phosphatase score 290 (normal 40 to 70), Ig(immunoglobulin)G 510 mg. per deciliter (normal 1,050 plus or minus 200), IgA 115 mg. per deciliter (normal 200 plus or minus 60), and IgM 55 mg. per deciliter (normal 80 plus or minus 20). The Coombs', Ham, and Crosby tests gave negative results. A bone marrow biopsy revealed a marked increase of karyocytes, consistent with the diagnosis of erythroleukemia. On the sixth hospitalization day interstitial pneumonia was diagnosed. An extensive search for pathogenic organisms, including repeated bacteriologic, virologic, and serologic examinations gave negative results. The treatment consisted of gentamicin sulfate and cephalothin sodium for 10 consecutive days without an observable benefit. However, resolution of the pneumonic process was noted within two weeks and concomitantly there was an improvement in the peripheral blood picture, with the disappearance of blasts, myelocytes, metamyelocytes, and normoblasts. The hemoglobin concentration had risen to 9 mg. per deciliter, the white blood cell count to 3,400 per cubic millimeter with 60 percent polymorphonuclears, 10 percent band forms, 10 percent monocytes, and 20 percent lymphocytes and there were no normoblasts. The platelet count was 90,000 per cubic millimeter. The patient refused another bone marrow biopsy. Her condition was satisfactory, the purpura waned, and she returned to her daily activities. Five months later a hematologic relapse was noted with reappearance of blasts and normoblasts in the peripheral blood and the patient succumbed shortly afterwards to *Pseudomonas aeruginosa* septicemia.

Comment

We are not aware of a report concerned with the development of erythroleukemia in a patient treated with irradiation and later by melphalan for adenocarcinoma of the breast. However, the development of this complication is well documented in patients with multiple myeloma treated with melphalan[2,3] as well as in patients treated with this drug for a wide spectrum of conditions, such as macroglobulinemia,[4] ovarian tumors,[5] cold agglutinin syndrome,[6] and scleromyxedema.[7] Spontaneous remissions in acute leukemia, a rarely noted event in itself, was observed especially following pneumonia.[8] Spontaneous remission of erythroleukemia is extremely rare,[8] and has not been reported in the English medical literature during the last two decades. The spontaneous remission in this patient is remarkable since it occurred concomitantly with the resolution of an interstitial pneumonia which was probably of a viral origin. The mechanism of the remission is unclear and the recent suggestion of the possible role of interferon in its induction[9] remains to be proved.

Summary

A patient with adenocarcinoma of the breast treated with irradiation and melphalan subsequently developed erythroleukemia. A spontaneous remission of the leukemic process lasting for five months was noted following interstitial pneumonia.

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Sore throat sometimes can be life threatening

Don't ignore a sore throat that hangs on for several days. Especially if you have difficulty swallowing. You might have acute epiglottitis.

The epiglottis, which is at the back of the throat, serves as a lid to prevent food from entering the windpipe while swallowing.

Sometimes the epiglottis becomes swollen and inflamed. It hurts to swallow, and, if untreated, can swell so large that it blocks air from getting into the windpipe. This is an acute medical emergency requiring an immediate tracheostomy to permit the victim to breathe.

Robert H. Ossoff, M.D., of Northwestern University School of Medicine, Chicago, reports in the December 12 Journal of the American Medical Association that this well-known children's health problem also occurs in adults. Six adults were treated at Evanston (Ill.) Hospital during a five-month period. Two required cutting into the windpipe and inserting a breathing tube (tracheostomy). There were no deaths.

The illness is more common in adults than commonly realized, Dr. Ossoff says.

The disease responds well to treatment. Undiagnosed acute epiglottitis is a well-established killer of young adults, Dr. Ossoff says, and the diagnosis should be considered in an adult with a sore throat and difficulty in swallowing.

Vaccinia Reaction in a Sibling

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Vaccinia virus has been successfully used for years in the vaccination of susceptible individuals against smallpox, and has largely been responsible for the transglobal eradication of variola. The use of the vaccinia virus is not without potential hazards. Typically, this is an acute infectious disease which follows direct or indirect inoculation characterized by the progressive formation of a localized lesion (papule-vesicle-pustule-crust) and which is often accompanied by regional lymphadenitis, fever, and myalgias. More serious complications rarely follow vaccination.

Case report

A two and one-half-year-old male Filipino child was brought to the Kings County children's receiving ward complaining of a painful facial rash of four days' duration. Two weeks prior to admission his mother and an older sibling had received smallpox vaccinations for travel to the Philippines. The patient played extensively with the older sibling, often having direct facial contact with the vaccination site. Four days prior to admission, he developed vesicular lesions of the left cheek which gradually progressed to pustular-crusted lesions involving the entire left hemiface, left eye, and pre- and postauricular areas. Several similar lesions were seen on the left leg and back. Seven days prior to admission, the child had a temperature of 102° F. which responded promptly to acetaminophen drugs. The child's appetite was noted to be decreased and he was very irritable.

This child was the full term product of a normal spontaneous vaginal delivery; immunizations were up to date. He had had no past illnesses except chickenpox at age two. He had no allergies or immunodeficiency diseases and had passed normal milestones.

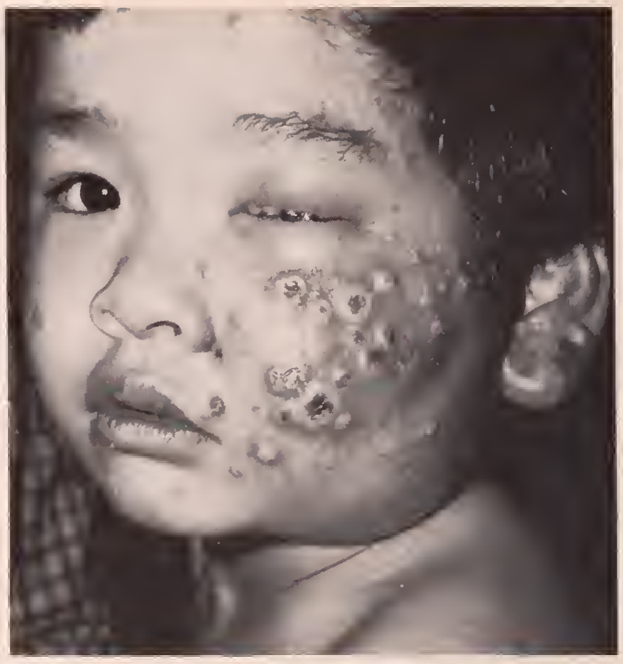

FIGURE 1. Multiple round, umbilicated pustular lesions of left cheek and left pinna.

The examination revealed a slightly unstable Filipino child in no acute distress. Vital signs were: temperature 102° F., blood pressure 110/70, pulse rate was 140 per minute, and respiration rate was 36 per minute. There was marked erythema and edema of the left hemiface and upper and lower eyelid, but fluctuance, tenderness, and warmth were not noted. Multiple, round, umbilicated pustular lesions were seen on the cheek, left pinna, anterior chest, back, and lower left extremity (Fig. 1). There were scattered nontender small cervical lymph nodes palpated. Findings on the remainder of the physical examination were within normal limits. The white blood count was 8,200 with normal differential and result on urinalysis was normal. Culture of the blood and lesions were taken for bacteria and virus. The diagnosis of a vaccinia reaction was made, and the child was admitted to strict isolation. An infectious disease consultant did not think that a secondary cellulitis was present, and, therefore, warm compresses with bacitracin were applied. The ophthalmology consultant saw the patient and diagnosed vaccinia of the eyelid alone; the cornea was not involved. The patient rapidly improved with conservative care; the lesions resolved and the fever defervesced. Findings on blood cultures were negative, but cultures of the lesions grew *Staphylococcus aureus* and vaccinia virus, as demonstrated by electronmicroscopy. Because of marked improvement, the patient was discharged afebrile three days after hospitalization.

Comment

This case represents one of several complications associated with smallpox vaccination. Although the outcome was good, the sibling inoculation could have caused corneal vaccinia, cellulitis, or generalized vaccinia. The latter, in children without eczema, has low mortality. Secondary bacterial infection in the form of cellulitis or sepsis can be life-threatening. Corneal vaccinia often leads to ulceration, scarring, and blindness. Other serious complications, although rare, include toxic eruptions (erythema multiforme), eczema vaccinatum, progressive vaccinia, and postvaccinal encephalitis. Children with a background history of eczema should never be vaccinated or exposed to someone who has been vaccinated since mortality is high from the extensive vesiculo-pustular eruption which can occur in these patients. Progressive vaccinia, also called vaccinia gangrenosa or vaccinia necrosum, occurs in the immunodeficient population (antibody formation or delayed hypersensitivity), and is characterized by the failure of the initial vaccinia lesions to heal followed by progressive and extensive necrosis and the development of metastatic lesions in other viscera, skin, and bone. Most cases are fatal.

Even though routine smallpox vaccination of children in the United States was discontinued in 1971, and discontinued for hospital employees in 1976, the vaccine continues to be used by the United States military and dependents, as well as a number of foreign countries.[1,2] This case and the majority of those reported to the Center for Disease Control are avoidable.[3,4] According to the WHO (World Health Organization), there are no current epidemiologic or medical reasons for countries to require smallpox vaccination for anyone except the handful of laboratory workers using variola virus.[5]

There are currently only four such collaborating WHO laboratories.

On October 26, 1977, the world's last known patient with naturally transmitted smallpox developed his rash in Merka, Somalia, ten years after the WHO initiated its global smallpox eradication program. This remarkable milestone in the history of medicine will stand only second to Edward Jenner's original discovery of the smallpox vaccination in 1796. The ultimate final global certification of smallpox eradication from the earth was made by the World Health Assembly at Geneva on May 8, 1980. Therefore, it is incumbent on all practicing physicians, especially those counseling travelers and the military, to be aware of the most current WHO recommendations concerning smallpox vaccination. In such a manner, the final tribute to Jenner's work will be paid and further serious complications of the vaccination will be prevented.

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Prolonged Benzodiazepine Coma

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The benzodiazepines are the most popular class of sedative-hypnotic drug,[1,2] with flurazepam hydrochloride alone accounting for about 50 percent of all hypnotic prescriptions.[2] The benzodiazepines are generally regarded as the safest sedatives because of their low potential to produce cardiovascular or respiratory depression.[2–4] There are very few documented cases of coma lasting more than 24 hours due to benzodiazepine overdose.[5] This report describes a case of prolonged coma caused by massive overdose of two commonly used benzodiazepine sedatives. This report emphasizes that ingestion of a sufficient quantity of any sedative can produce coma, and that with meticulous medical care, most cases of sedative overdose can completely recover.

Case report

A 48-year-old woman ingested 1.5 Gm. chlordiazepoxide and 2.4 Gm. of flurazepam hydrochloride in a suicide attempt. Within one hour of the drug ingestion, her family found her in a lethargic condition. They brought her to The New York Hospital emergency room less than 90 minutes after the drug ingestion. She was comatose, breathing at 8 shallow breaths per minute. After endotracheal intubation, initiation of artificial ventilation, and gastric lavage with activated charcoal, examination showed a blood pressure of 60/40 mm. Hg; pupils 2 mm. in diameter and light-fixed; corneal and oculovestibular responses were absent. There was total muscle flaccidity with areflexia. Her arterial blood gas analysis prior to intubation revealed: pH, 7.32; oxygen pressure, 62 mm. Hg; and carbon dioxide pressure, 55 mm. Hg. The patient's hypotension was initially treated with a dopamine infusion, which was later replaced by a levarterenol infusion. A heating blanket was required to maintain euthermia. A broad-spectrum antibiotic was given for aspiration pneumonia. The chlordiazepoxide blood level was 59.4 micrograms per milliliter and the flurazepam level was 6.6 micrograms per milliliter. No other drugs were detected. The early course was complicated by aspiration pneumonia, pulmonary edema, and cardiac arrhythmia. Blood pressure hovered between 80/60 and 60/40 mm. Hg, despite dopamine and levarterenol infusions for the first 48 hours. Urine output was 1 liter for the first 48 hours. Then isosthenuria and polyuria developed. Careful attention to electrolyte balance, suctioning of the lungs, and the avoidance of overhydration managed to prevent these complications from worsening.

By day 4, it was possible to maintain the blood pressure above 90/60 mm. Hg with only low-dose dopamine. Ice water caloric stimulation first elicited a reaction of tonic ocular movement and the pupillary light reflexes reappeared on day 4, but the patient remained unresponsive to other external stimuli. At that time, the chlordiazepoxide blood level was 8 micrograms per milliliter, and flurazepam was no longer detectable. Chlordiazepoxide was not detectable after day 5.

On day 8, spontaneous breathing began and one could detect stretch reflexes in the extremities. She first responded to noxious stimuli by opening her eyes and withdrawing her limbs on day 10, and she mumbled words one day later. Not until day 13 did she fully awaken to follow commands and answer questions. The quick phase of nystagmus to caloric stimulation did not return until day 15. She has since made a complete physical and intellectual recovery and is receiving psychiatric treatment.

Comment

This is one of the most severe reported cases of benzodiazepine overdose.[5,6] Only patients who have ingested large quantities of barbiturates or glutethimide have been noted to have periods of unconsciousness that approach the length of this patient's coma.[6] The complete loss of cranial nerve reflexes and the extreme cardiovascular and respiratory depression seen in this case are unusual for benzodiazepine overdose and reflect the magnitude of this patient's drug ingestion.[4–6]

The prolonged duration of coma in this case is most likely due to long-lived active metabolites of flurazepam and chlordiazepoxide. N-desalkyl-flurazepam has a half-life of 51 to 100 hours,[3] and the half-life of N-desmethyldiazepam, an active metabolite of chlordiazepoxide, is 92 hours.[2] The benzodiazepines and their metabolites are not known to be sequestered for prolonged periods in the brain.[2] Therefore, the slow clearance of the active benzodiazepine metabolites may explain why the patient remained comatose for 5 days after chlordiazepoxide and flurazepam were no longer present in her blood. While it is possible that the patient was significantly hypotensive or hypoxic at some time prior to her admission, her complete recovery suggests that the prolonged duration of her coma was not due to hypoxic or ischemic brain damage. No patient with hypoxic or ischemic brain injury has completely recovered if motor activity and cranial nerve reflex responses were absent for more than 3 days.[6-8]

This patient's course emphasizes the maxim that if patients with depressant drug poisoning survive to reach the hospital, they are potentially salvageable even if the blood levels of the ingested agents are very high.[6] Her outcome further emphasizes that even very long periods of coma need not produce any brain injury so long as arterial perfusion pressure and oxygenation are maintained at levels close to the physiologic norm.

Summary

The benzodiazepines are a widely used class of sedative-hypnotic drugs, which rarely cause prolonged coma in drug overdose. We describe a 48-year-old woman who suffered 10 days of coma from an overdose of flurazepam and chlordiazepoxide. The patient completely recovered. The importance of careful medical management of severe sedative overdose is discussed.

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Pancreas cancer found tied to environmental exposures

Cancer of the pancreas causes more cancer deaths (20,000) per year in the United States than any other cancers except those of the colon, rectum, lung, and breast.

Cancer of the pancreas has been increasing for 30 years in the United States, and physicians are seeking to find out why.

The pancreas is a glandular organ in the midabdomen that secretes enzymes that aid in digestion, and which also produces insulin, which aids in the regulation of blood sugar levels.

A University of Maryland School of Medicine research study in more than 115 hospitals in five metropolitan areas revealed some factors present in pancreas cancer cases in a report in the January 9 Journal of the American Medical Association.

Ruey S. Lin, M.D., and Irving I. Kessler, M.D., found that men with pancreatic cancer were more often employed in the dry cleaning business or in occupations involving close exposure to gasoline. Women at risk for pancreatic cancer were more likely to smoke cigarettes, have uterine tumors, and to have had ovaries removed or miscarriages.

Generally, pancreas cancer patients of both sexes were of higher social class and drank more wine and decaffeinated coffee than similar control groups, Dr. Lin says.

No single one of these factors brought substantially increased risk of pancreatic cancer, but a combination of them elevated the risk 34-fold among women and nearly six-fold among men, he declares.

Yersinia Enterocolitica Sepsis in an Infant

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***Yersinia enterocolitica* can cause** a variety of infections in man. It has been reported to occur in association with mesenteric lymphadenitis, gastroenteritis, and arthritis in children,[1] and septicemia, fever of unknown origin, arthralgia, and erythema nodosum in adults.[2]

Infections by *Y. enterocolitica* tend to have some underlying pathology. These include in adults: cirrhosis, hemachromatosis, diabetes, hematologic disorders, malnutrition, or treatment with immunosuppressive drugs.[2] Only rarely has septicemia occurred in adults in the absence of specific underlying diseases.[1,3,4] Similarly, septicemia in children tends also to occur in patients with some underlying disorder. Most septicemias are of intestinal origin and most of these patients have a hematologic disorder such as thalassemia and aplastic anemia.[5] In the young infant septicemia usually occurs following gastroenteritis, and in children over about five years of age, it can arise as a complication of an appendicular syndrome.

This report describes an infant who appeared with diarrhea, fever, and septicemia caused by *Y. enterocolitica.* I am reporting the case because of the rareness of septicemia with this organism in normal infants.

Case report

A three-month-old white female appeared with a two-day history of fever, diarrhea, vomiting, and lethargy. Past medical history was noncontributory. Patient had no contact with animals, and all other family members were healthy.

Physical examination revealed an irritable child in mild discomfort with no abnormal finding. Temperature was 40.3°C.; pulse 180 per minute, respiration 80 per minute. Laboratory studies yielded the following data: hemoglobin 9.6 Gm. per deciliter; hematocrit 28.2; white blood cell count 15,900 per cubic millimeter with 5 percent bands, 25 percent segments, 42 percent mature lymphocytes, and 28 percent monocytes; sodium 145 mEq. per liter, potassium 5.5 mEq. per liter, chloride 99 mEq. per liter, and creatinine 0.3 mg. per 100 ml. Results of urinalysis and serum protein electrophoresis were normal. Cerebrospinal fluid had 190 red blood cells per cubic millimeter; 7 white blood cells, all mononuclear, per cubic millimeter; glucose 70 mg. per deciliter; and protein 35 mg. per deciliter. Gram-stain results were negative. Blood cultures were drawn which subsequently grew *Y. entercolitica.* Stool cultures showed no pathogens.

Parenteral therapy with ampicillin, 200 mg. per kilogram per day, and gentamicin sulfate, 7.5 mg. per kilogram per day, was given for 14 days. The patient became afebrile by the third day and the diarrhea subsided on the fifth day of therapy. Blood cultures drawn 48 hours after completion of antimicrobial therapy were sterile. Patient was followed for 12 months and showed normal development. Hemoglobin electrophoresis done at the age of one year was normal.

Bacteriology

The *Yersinia enterocolitica* organism was identified by examination of microscopic and colonial morphology and on the basis of biochemical testing. Gram-stained smears of the positive blood culture and of colonies growing on MacConkey agar and on trypticase soy agar with 5 percent sheep blood revealed gram-negative coccobacilli. The organism produced small, colorless colonies on MacConkey agar; on 5 percent sheep blood agar the colonies were 1 to 2 mm. in diameter, circular, grayish-white, and smooth in consistency.

The organism produced an alkaline slant and acid butt on lysine-iron agar, indicative of inability to deaminate or decarboxylate lysine. The organism was able to decarboxylate ornithine but not arginine. Hydrogen sulfide was not produced, and the spot test for indole production gave positive results.

Motility was negative at 37°C. and positive at room temperature. The urease test result was positive, but tests for DNase, oxidase, and phenylalanine deaminase, and growth on citrate gave negative results. The organism fermented arabinose, sorbitol, and mannitol, but not adenitol, inositol, raffinose, and rhamnose. An acid slant and acid butt with no gas was produced in the triple sugar iron agar medium, which was evidence of sucrose, not lactose, fermentation.

Confirmation of the identification of the bacterial isolate described here was performed by the Maryland State Department of Health.

Using the modified Kirby-Bauer technique, the isolate was found to be susceptible to chloramphenicol, tetracycline, sulfonamide, kanamycin, gentamicin, tobramycin, and colistin, but resistant to ampicillin, carbenicillin, and cephalothin.

Comment

Yersinia enterocolitica has been recognized as a frequent cause of enteritis and other gastrointestinal illnesses of children in Northern Europe and Canada.[6,7] However, only a number of cases[8] and two outbreaks due to *Y. enterocolitica* were reported in the United States.[9,10] Symptoms referrable to the gastrointestinal tract have been prominent in most of these cases. In addition to gastroenteritis, the other clinical syndromes caused by *Y. enterocolitica* include abdominal pain (pseudoappendicitis),[2] nonsuppurative arthritis,[11] erythema nodosum and other skin rashes,[12] and, rather uncommonly, septicemia, meningitis, ophthalmitis, skin ulcers, and carditis.[2]

Our report demonstrates the rare occurrence of *Y. enterocolitica* septicemia, even in a normal infant who appears with gastrointestinal symptoms. Early recognition and administration of antimicrobial therapy is of great importance in preventing serious sequelae of sepsis caused by this organism.

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AMA issues new edition of sports injuries book

What, actually, is an abrasion? It's the scraping raw of skin, but in the world of sports it goes by many other names, such as cinderburn, floor burn, grass burn, mat burn, skid burn, slide burn, strawberry, or turf burn.

To help physicians arrive at a standard diagnosis of abrasions and hundreds of other sports injuries, the American Medical Association in January issued an extensively revised and updated edition of its 16-year-old book, "Standard Nomenclature of Athletic Injuries."

The 171-page book was prepared by a panel of authorities in sports medicine under the auspices of the AMA's Council on Scientific Affairs. Jack Bell of the AMA's Department of Environmental, Public and Occupational Health was secretary to the panel and editor of the book.

The book covers such diverse conditions as anxiety, heat stroke, and tennis elbow. It gives the common name of the injury, additional names by which it is known, possible cause, symptoms, physical signs, complications, and other aspects.

Most athletes know what is meant by a charley horse, but to the physician this common injury is a contusion of the thigh, caused by a direct blow that results in internal bleeding within the muscle.

There are a variety of knee injuries listed separately, such as knee contusions, knee dislocations, and various types of knee sprains.

The book is available from AMA Publications, P.O. Box 821, Monroe, Wis. 53556.

continued from page 770

Wax or glass wool are much more effective. Rubber or plastic earplugs must be carefully fitted.

In the home, the individual can turn down the volume on radio, tv, and stereo, and use the noisy appliances at times of the day when most of the family are away or out of doors.

Surfer's knots are health hazard for those who ride the waves

Most active sports have their own special health hazards.

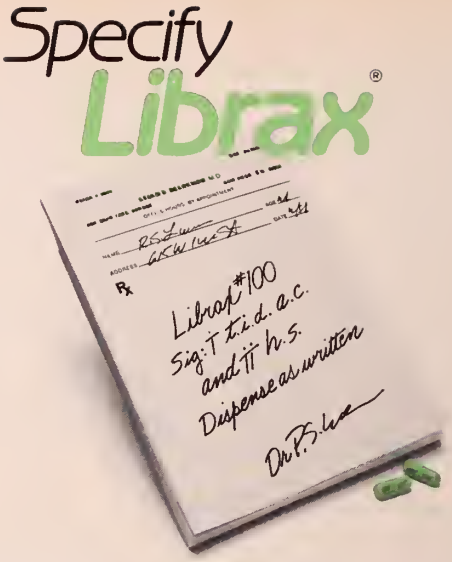
In tennis it's tennis elbow, for runners it's jogger's heel. And for the surfers of California and Hawaii it's surfer's knots.

The surfer's knot is a lump that forms on the ankles and shins of surfers because of kneeling on the rough surface of the board while waiting for a wave, says Claude O. Burdick, M.D., of Valley Memorial Hospital, Livermore, California.

Writing in the February 27 Journal of the American Medical Association, Dr. Burdick said that surfer's knots also might involve fractures of the small bones of the feet, bone spurs in the small joints of the ankle or foot, ulcers of the ankle or foot, cysts thought to be caused by sand, and a few other problems.

Dr. Burdick suggests that the name surfer's knots is too general, and that an entire new nomenclature is needed to diagnose surfing health problems. This might include surfer's fractures, surfer's spurring, surfer's ulcer, surfer's callus, surfer's ganglion and surfer's bursa.

Surfer's knots often heal by themselves with a period of some days of rest from surfing. But sometimes they require medical treatment.



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows.

"Possibly" effective as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

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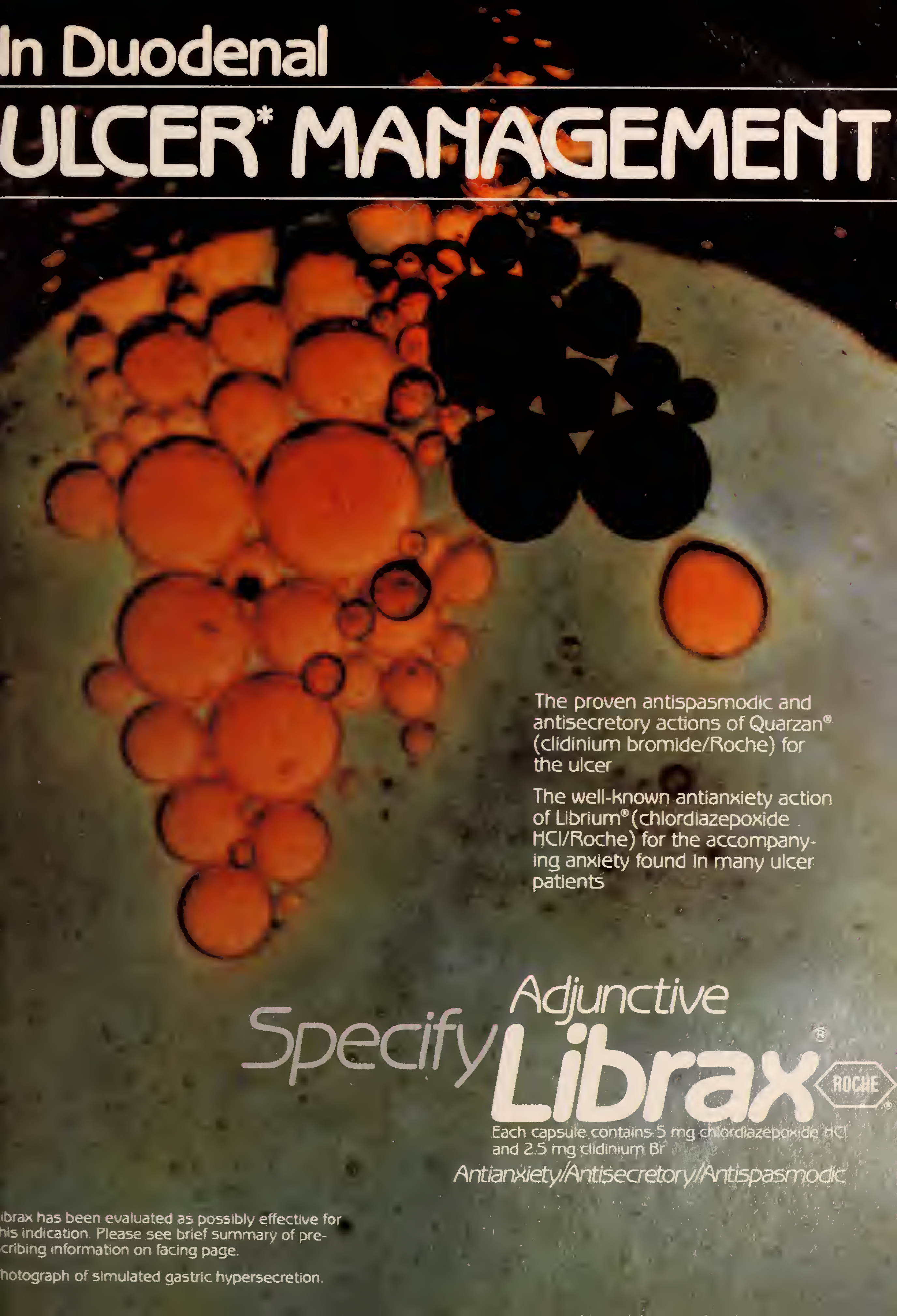

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Chronic Granulomatous Hepatitis

With myocarditis and meningitis

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The syndrome of fever of unknown origin with granulomas in the liver, so-called granulomatous hepatitis, is not an uncommon clinical problem. After the infections, toxins, drugs, neoplasms, systemic inflammatory diseases, and primary liver diseases are excluded as possible causes of the syndrome, one is left with a group of 20 to 25 percent of patients in whom no cause is found.[1] This subgroup of patients with idiopathic granulomatous hepatitis was established as a distinct entity by Simon and Wolff[2] and they successfully treated most of their patients with steroids. We report a case of this syndrome which also involved the heart and brain, did not respond to steroids and antituberculous therapy, and ultimately proved fatal.

Case report

A 69-year-old white female appeared at Lenox Hill Hospital in June, 1977, with a five-day history of fever to 104°F. but no localized symptoms. She had received electroconvulsive therapy for depression and her sister had had tuberculosis as a child. She denied chills, cough, diarrhea, and had been eating well, although she was occasionally troubled by nausea. The patient had been treated by her family physician with ampicillin and aspirin for three days but did not improve. There was no history of exposure to other drugs, toxins, or, in particular, beryllium.

On admission the temperature was 100.5°F., pulse 100 per minute and irregular, and blood pressure 120/80 mm. Hg. The only positive physical findings were skin pallor and dullness to percussion with decreased air entry at the right lung base.

Laboratory data were as follows: serum sodium 134 mEq. per liter, potassium 4.4 mEq. per liter, carbon dioxide 25 mEq. per liter, chloride 99 mEq. per liter; hemoglobin 8.3 Gm. per 100 ml., mean corpuscular hemoglobin 22.9 micromicrograms, serum iron 20 micrograms per 100 ml., serum iron binding capacity 38 micrograms per 100 ml. (normal 250 to 410), serum folate 1.5 micrograms per liter (normal 1.9 to 14), serum B12 783 picograms per milliliter (normal 200 to 1,000), Coombs' test negative, serum haptoglobin 100 to 200 mg. per 100 ml. (normal 100 to 200), white blood cell count 14,400 per cubic millimeter (segmented forms 55 percent, bands 36 percent, lymphocytes 7 percent, monocytes 2 percent), ESR (erythrocyte sedimentation rate) 86 mm. per hour, antinuclear antibody 1:40, lupus erythematosus cell test negative. Liver function tests showed: serum protein 6 Gm. per 100 ml., albumin 2.3 Gm. per 100 ml., serum globulin 3.7 Gm. per 100 ml., bilirubin 0.4 mg. per 100 ml., alkaline phosphatase 125 mU. per milliliter (normal 30 to 85), LDH (lactic dehydrogenase) 125 mU. per milliliter, SGOT (serum glutamic oxaloacetic transaminase) 87 mU. per milliliter (normal 10 to 60). Other chemical abnormalities were: serum Ig(immunoglobulin)G 1,900 mg. per 100 ml. (normal 592 to 1,599), serum IgM 310 mg. per 100 ml. (normal 38 to 240); serum calcium 8.4 mg. per 100 ml., serum glucose 140 mg. per 100 ml., blood urea nitrogen 7 mg. per 100 ml., serum cholesterol 125 mg. per 100 ml.

Chest x-ray film showed right pleural effusion, liver-spleen scan showed moderately enlarged liver and normal spleen, and upper gastrointestinal series revealed a hiatal hernia. Intravenous pyelogram, intravenous cholecystogram, computerized axial tomography scan of the head, gallium scan, and lumbar myelogram all gave normal results. Electrocardiogram showed atrial fibrillation with right bundle branch block.

Culture of urine yielded more than 100,000 colonies of *Escherichia coli* per cubic centimeter and a culture of bronchial washings grew a mixture of *Staphylococcus aureus*, *Klebsiella*, and *Enterobacter*.

Initial treatment consisted of ampicillin, penicillin, gentamicin, digoxin, iron sulphate, and folic acid. However, fever persisted and multiple cultures of blood, sputum, pleural fluid, and bone marrow were negative. Pleural fluid analysis showed protein 2.4 Gm. per 100 ml., LDH 125 mU. per milliliter, polymorphs 94 per cubic millimeter, lymphocytes 3, and monocytes 3. Spinal fluid analysis showed protein 35 mg. per 100 ml., glucose 40 mg. per 100 ml., and no leukocytes. A bone marrow aspirate showed slight reactive plasmacytosis. The cytomegalovirus titer was 64 but urine cultures were negative for virus. Serologic tests including Venereal Disease Research Laboratory, Australia antigen, febrile agglutinins (typhoid, paratyphoid, *Brucella*, and *Proteus* OX-19), *Histoplasma* latex agglutination, complement fixation and precipitation, *Blastomyces* complement fixation, and *Coccidioides* latex agglutination all gave negative results. Tuberculin skin test was positive; a Kveim test was not performed. Blood lymphocyte typing showed 74 percent T cells and 16 percent B cells in the patient and 65 percent T and 15 percent B in the control.

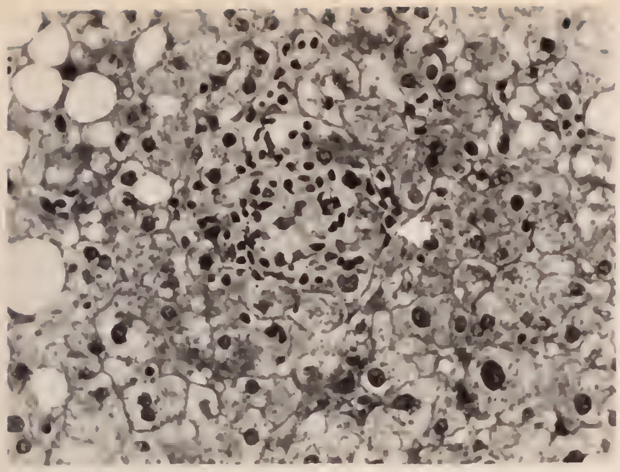

FIGURE 1. Liver biopsy taken during first admission. In center is small epithelioid granuloma (arrow). Liver cells at left show fatty change (hematoxylin, phloxine, and safranine (HPS) stain, original magnification X 400).

A liver biopsy showed multiple small noncaseating epithelioid granulomas scattered randomly throughout the liver lobules and mild fatty change (Fig. 1). Stains for acid-fast bacilli and fungi, and cultures of liver tissue were negative. A trial of antituberculous therapy with isoniazid, pyridoxine, ethambutol, and rifampin, and then prednisone 60 mg. daily failed to control the fever. She was discharged in September, 1977, still febrile, on isoniazid and prednisone.

The patient was readmitted in November, 1977, because of visual disturbance and for a repeat liver biopsy. She was cachectic, had lost 26 pounds in weight, and had a temperature ranging from 99° to 103°F. There were bilateral cataracts and macular degeneration, more marked in the left eye. Alkaline phosphatase was 110 mU. per milliliter and SGOT 87 mU. per milliliter. Liver biopsy again showed epithelioid granulomas. In December she was readmitted after a convulsion with tonic-clonic movements of the left arm. Radiographic studies gave negative results and the patient stabilized on phenobarbitone. Over the next year at home she remained anorexic and febrile, continued to lose weight, and developed generalized edema. The patient died in December, 1978, 18 months after the onset of symptoms.

The clinical features of this case are summarized as follows:

I. Female, age 69
II. Fever of unknown origin (18 months)
    A. Weight loss
    B. Family history: tuberculosis
    C. Hepatomegaly
    D. Leukocytosis
    E. Elevated ESR
    F. Hypoalbuminemia and hyperglobulinemia
    G. Elevated SGOT
    H. No response to isoniazid, ethambutol, steroids
III. Hepatic granulomas
IV. Right pleural effusion (empyema)
V. Atrial fibrillation
VI. Convulsions
VII. Anemia
    A. Iron deficiency
    B. Folic acid deficiency
VIII. Hyperglycemia
IX. Urinary tract infection
X. Hiatal hernia

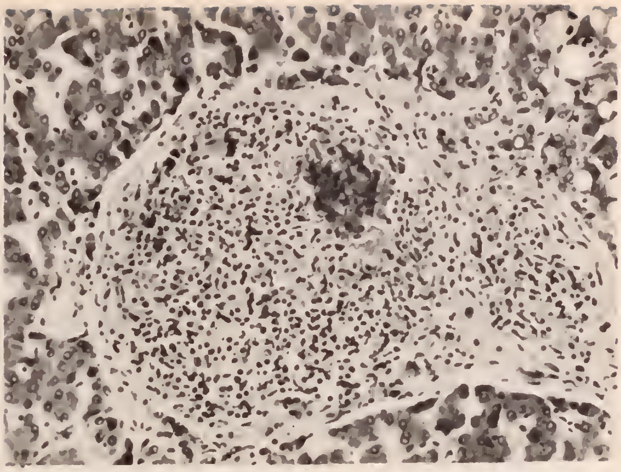

FIGURE 2. Autopsy: liver. There is a large, sharply circumscribed granuloma with one giant cell in a portal tract. Compare size of this granuloma with original biopsy in Figure 1 (HPS stain, original magnification X 250).

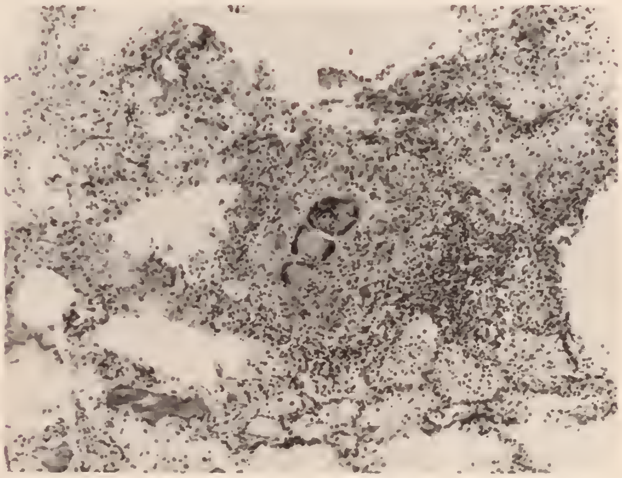

FIGURE 3. Autopsy: lung. In center is large granuloma with three giant cells (HPS stain, original magnification X 100).

Pathology

A complete postmortem examination was performed. The body was wasted and weighed 75 pounds.

The major gross findings were: pericardial adhesions; loculated right empyema; excessive mucopurulent bronchial secretions in the left lower lobe; hiatal hernia of the stomach with three small esophageal ulcers; diverticulosis of the colon; and atrophic adrenals, each weighing 3 Gm. The myo-

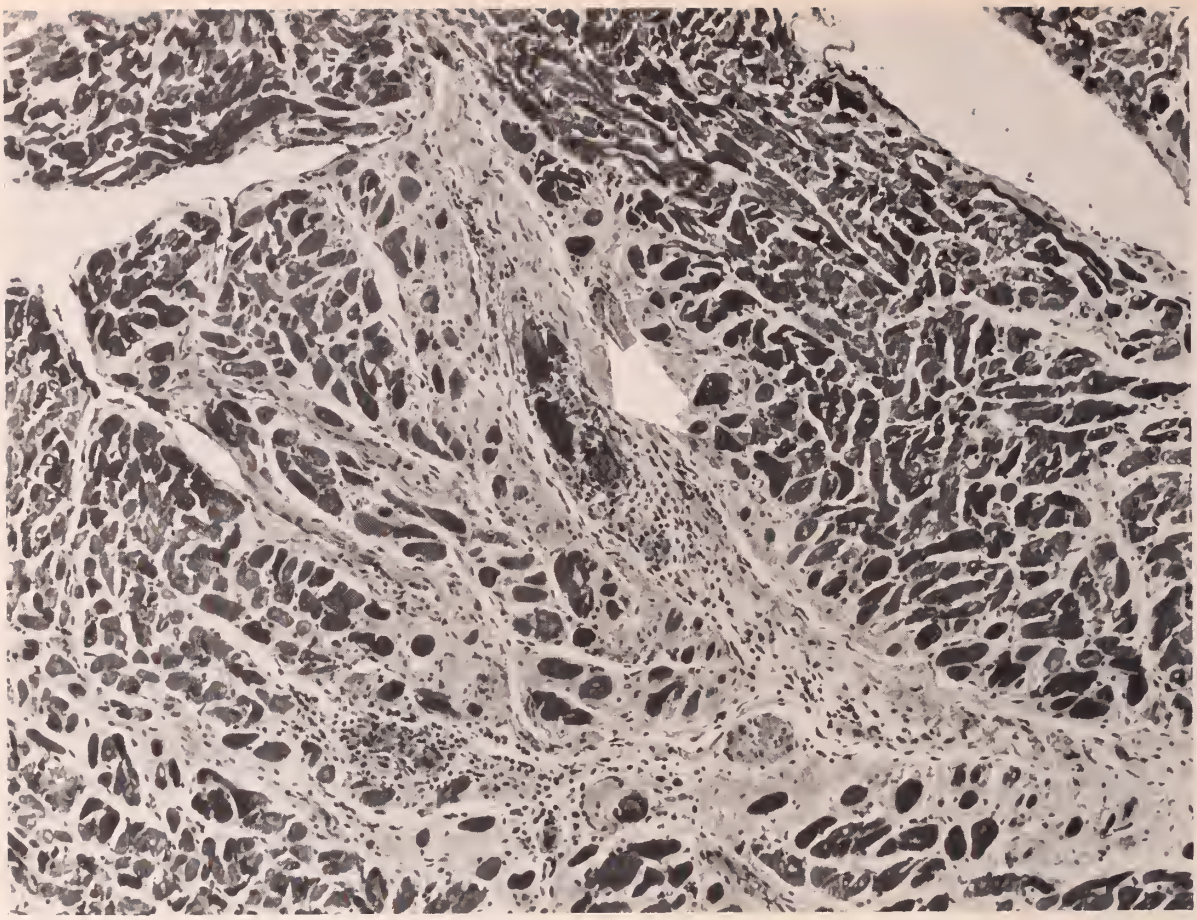

FIGURE 4. Autopsy: heart. In center is granuloma in the interstitium (arrow) surrounded by fibrous tissue (HPS stain, magnification × 100).

cardium and brain were grossly normal, the liver had a smooth mottled yellow cut surface, and the lung did not show any caseous or calcified lesion.

Microscopic examination revealed widespread granulomatous inflammation involving the liver, spleen, lungs, hilar lymph nodes, heart, meninges, kidney, periadrenal fat, stomach, and breast (Figs. 2-6). The granulomas were composed of histiocytes, epithelioid cells, lymphocytes, and giant cells. In none of the granulomas were there any identifiable ova, helminths, acid-fast bacilli, fungi, or bacteria. Nor was there any birefringent foreign material or vasculitis.[3]

The findings are summarized in Table I with clinical correlations where appropriate. Of note are the granulomatous myocarditis, the chronic active hepatitis, and the meningeal involvement (Figs. 4, 5, 7). Postmortem lung and blood cultures were negative.

Comment

This patient appeared with fever of unknown origin and hepatic granulomas. In the first instance known causes had to be excluded. In one review of this problem 53 causes were listed[1]; however, in practice, sarcoidosis and tuberculosis account for 50 to 65 percent of all cases.[2] Other important causes are listed in the following outline, based on MacSween's[1] Table 18.1.

I. Infections
  A. Bacterial
    1. Tuberculosis
    2. Brucellosis
    3. Syphilis
    4. Leprosy
  B. Fungal
    1. Histoplasmosis
    2. Coccidioidomycosis
    3. Blastomycosis
  C. Parasitic
    1. Schistosomiasis
    2. Visceral larva migrans
  D. Viral
    1. Cytomegalovirus
    2. Infectious mononucleosis
  E. Rickettsial: Q fever
II. Hypersensitivity and Immunodeficiency Diseases
  A. Berylliosis
  B. Drugs
    1. Sulfonamides
    2. Phenylbutazone
    3. Allopurinol
  C. Vasculitis
    1. Wegener's granulomatosis
    2. Polymyalgia rheumatica
  D. Hypogammaglobulinemia

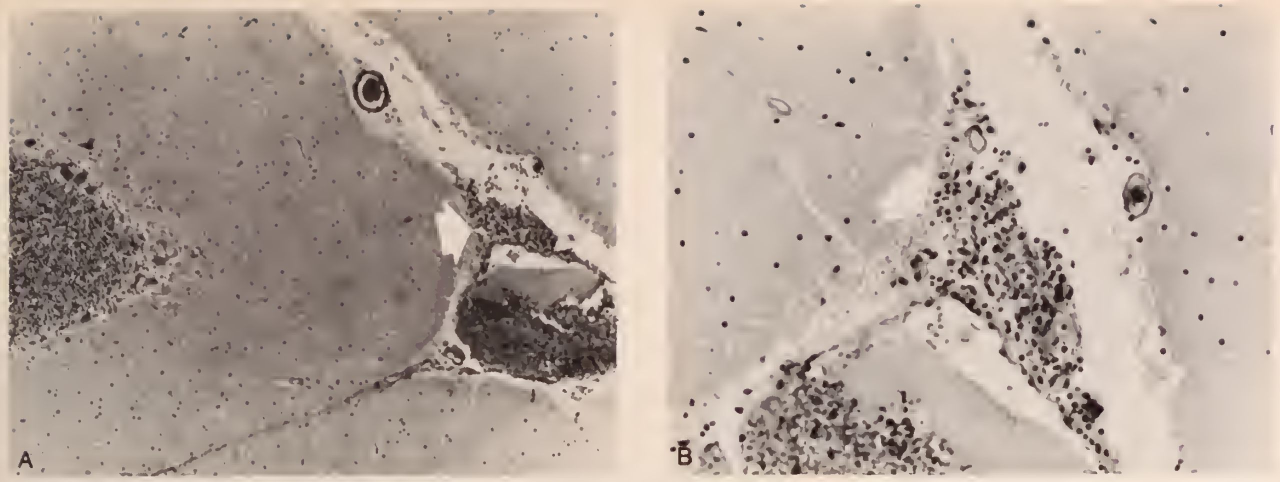

FIGURE 5. Autopsy: cerebellum. (A) Granuloma (arrow) in subarachnoid space next to blood vessel. Normal Purkinje cells at left (HPS stain, original magnification X 100). (B) Higher magnification of Fig. 5A (original magnification X 250).

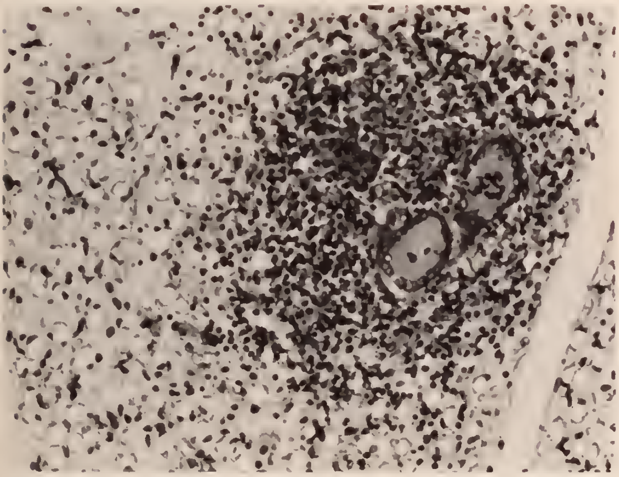

FIGURE 6. Autopsy: periadrenal fat. There is granuloma with two Touton giant cells (HPS stain, original magnification X 250).

III. Neoplasms
   A. Hodgkin's disease
   B. Non-Hodgkin's lymphomas

IV. Diseases of Uncertain Etiology
   A. Sarcoidosis
   B. Crohn's disease
   C. Primary biliary cirrhosis

Tuberculosis was ruled out in our case because of the failure to respond to isoniazid, ethambutol, and rifampin, and the negative cultures and tissue stains. Features against sarcoidosis were the prolonged high fevers[4,5]; absence of hilar adenopathy; lack of involvement of skin, eyes, and joints; positive tuberculin test result; low serum calcium level; and failure to respond to steroids. Brucellosis, syphilis, histoplasmosis, coccidioidomycosis, blastomycosis, and schistosomiasis were ruled out by serology and histology.

On the basis of the clinical and autopsy findings I believe this patient fits the syndrome of granulomatous hepatitis and prolonged fever of unknown origin.[2,6-8] In the series of Simon and Wolff[2] the patients suffered from high fevers, prolonged illness (average 3.6 years), weight loss, and myalgia. Physical findings were hepatosplenomegaly, and laboratory data showed elevated ESR, bromsul-

TABLE I. Pathologic findings with clinical correlation

Organ	Pathologic Lesion	Clinical Correlation
Liver	Granulomatous hepatitis	Fever, weight loss, hepatomegaly, elevated alkaline phosphatase, elevated ESR
	Chronic active hepatitis	?isoniazid-induced Hypoalbuminemia, generalized edema, hyperglobulinemia, elevated SGOT
Lung	Pulmonary granulomas and bronchopneumonia	Right empyema
Heart	Granulomatous myocarditis and pericarditis	Atrial fibrillation
Brain	Granulomatous meningitis	Convulsions
Adrenal	Adrenocortical atrophy	Prednisone therapy
Bone	Osteoporosis	
Eye	Cataracts	
Esophagus	Hiatal hernia Ulcerative esophagitis	Iron deficiency anemia

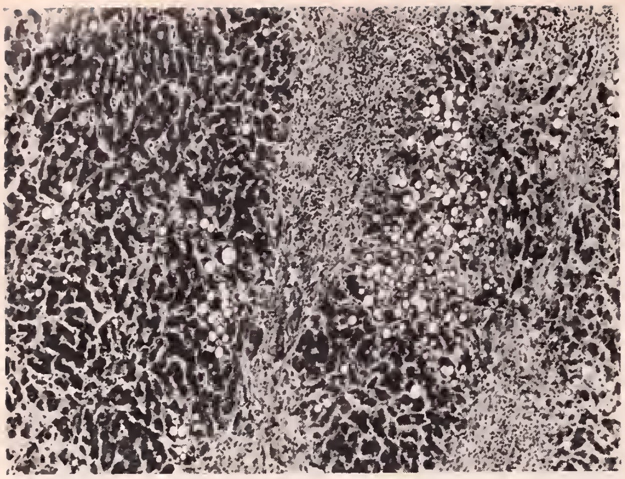

FIGURE 7. Autopsy: liver. Two nodules of liver separated by fibrous septa infiltrated by inflammatory cells (lymphocytes and plasma cells). Hepatitic lesion not present in original biopsy (HPS stain, original magnification × 100).

phthalein retention, elevated alkaline phosphatase and transaminases. All patients had liver biopsies showing multiple epithelioid granulomas; all but one patient defied etiologic diagnosis (this patient had Hodgkin's disease); and most responded favorably to steroid therapy.[2]

The autopsy revealed unexpectedly widespread disease, with involvement of the liver, lung, heart, and meninges. The granulomatous myocarditis and meningitis may have been responsible for the patient's symptoms of atrial fibrillation and convulsions. In addition, the liver disease had progressed from simple granulomas on the original biopsy to a complex lesion of granulomas and chronic active hepatitis with piecemeal necrosis and portal fibrosis at autopsy. This progression may have been due to the use of isoniazid,[9] and probably accounted for the terminal hypoalbuminemia and generalized edema.

Therapy with antibiotics, antituberculous agents, and steroids failed in this patient. The failure of steroids is unusual, although in Simon and Wolff's series[2] one patient responded poorly and several required doses of up to 120 mg. every other day. Steroid-related side effects were evident in our patient: marked adrenocortical atrophy, osteoporosis, and bilateral cataracts.

The pathophysiology of granulomatous disease is either a hypersensitivity or a foreign-body reaction.[10,11] Hypersensitivity reactions may be induced by a variety of antigens including microorganisms, chemicals, and drugs. The granulomas develop when macrophages aggregate around slowly degraded particulate or slowly released soluble antigen and accumulate as a result of release of lymphokines by sensitized T lymphocytes.[10,12] The epithelioid cell is a specialized secretory macrophage but the stimulus for its development is not known.[11] The antigens responsible in our case and the cases of Simon and Wolff have so far escaped detection. The other clinical problems encountered in this patient were urinary infection, terminal bronchopneumonia, reflux esophagitis, iron deficiency anemia, and parathyroid hyperplasia. None of these could be related to the underlying granulomatous disease.

Summary

A 69-year-old female appeared with fever of unknown origin and hepatic granulomas on biopsy. Exhaustive bacteriologic, fungal, and serologic studies failed to identify a causative organism. Radiologic studies together with liver, bone marrow, and pleural biopsies excluded malignancy. There was no response to antituberculous or steroid therapy. After 18 months of debilitating illness the patient succumbed. A complete autopsy was performed and unexpectedly showed cerebral and cardiac involvement. The literature on chronic granulomatous hepatitis is reviewed and the pathophysiology of this patient's illness is discussed.

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Miliary Tuberculosis and Adult Respiratory Distress Syndrome

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Miliary tuberculosis is the result of massive dissemination of tubercle bacilli throughout the body. A diffuse miliary infiltrate is seen on chest roentgenogram, and a miliary pattern of tubercles is observed in multiple organs at surgical or postmortem examination.[1,2] Miliary tuberculosis may occur shortly after primary infection or may follow recrudescence of an old primary lesion. Although previously considered to be a complication of primary childhood infection, disseminated tuberculosis is now being reported with increasing frequency in adults, especially older adults,[3] perhaps related to the decreased cellular immunity associated with aging.[4]

Conditions which predispose to miliary tuberculosis include alcoholism, pregnancy, diabetes mellitus, malnutrition, and cancer.[5] Miliary tuberculosis is twice as frequent in men as in women and is more common in black than in white people.[6] Death from respiratory failure may occur.[5]

The clinical presentation of an acute disseminated tuberculous infection is often nonspecific, making the diagnosis difficult. Any organ system in the body can be involved. Routine laboratory studies are frequently not helpful or misleading.

There are several reports of miliary tuberculosis associated with ARDS (adult respiratory distress syndrome).[7–9] This infrequent complication of miliary tuberculosis, almost uniformly fatal, usually occurs in patients with an underlying subacute or chronic illness and/or predisposing factors. We report the case of a 31-year-old previously healthy man with fatal ARDS who at postmortem examination had miliary tuberculosis.

Case report

A 31-year-old Hispanic man was hospitalized because of two weeks of high fever, shaking chills, and sweats. The patient had nasal congestion and a headache for one week and sharp cramping right upper quadrant pain of increasing frequency and severity over a four day period. He was in excellent health previously and denied malaise, weight loss, weakness, fatigue, or cough. There was no history of smoking or ethanol abuse. The patient's father died 30 months prior to admission at 66 years of age of emphysema and tuberculous pneumonitis. The patient was skin tested at that time and was found to be tuberculin negative.

Examination revealed an obese, ill-appearing man with considerable abdominal distress. The temperature was 102.5°F.; blood pressure 130/80 mm. Hg; pulse rate regular at 110 beats per minute; and respiratory rate 16 per minute. The lungs were clear to auscultation and percussion, the liver was enlarged, and there was moderate to severe right upper quadrant tenderness to deep palpation. The white blood cell count was 5,300 per cubic millimeter, with 74 percent polymorphonuclear leukocytes, 24 percent lymphocytes, and 2 percent eosinophils; hematocrit 42; platelet count 500,000 per cubic millimeter; prothrombin time 12 sec. (control 11.4 sec.); partial thromboplastin time 35 sec. (control 35 sec.); total bilirubin 1.8 per 100 ml.; alkaline phosphatase 350 IU per liter; lactic dehydrogenase 333 IU per liter. Chest x-ray film on admission was normal. Results of electrocardiogram, blood cultures, urine cultures, urinalysis, and tests for serum amylase, febrile agglutinins, heterophils, and Australia antigen were normal or negative. A 5 unit and then a 250 unit PPD (purified protein derivative) test both gave negative results. Ultrasonography of the abdomen revealed an enlarged liver and a thickening of the gallbladder wall suggestive of cholecystitis; liver and spleen scan showed hepatomegaly with a nonspecific pattern consistent with hepatitis. A faintly visualized gallbladder without stones, which contracted after a fatty meal, was seen on oral cholecystogram.

Therapy was initiated with intravenous ampicillin. On day 6 of hospitalization, without respiratory symptoms, the patient developed right basilar rhonchi. Repeat chest x-ray films showed a patchy right lower lobe infiltrate, consistent with right lower lobe pneumonia. The following day severe respiratory distress developed with tachypnea (80 per minute) and severe hypoxemia (arterial oxygen 36 mm. Hg on room air). Another chest x-ray film revealed diffuse bilateral fluffy infiltrates obscuring two thirds of each lung field. Miliary tuberculosis was suspected and therapy with isoniazid, rifampin, and ethambutol was initiated. Oxygen therapy by non-rebreathing face mask with inspired oxygen concentration (FIO_2) up to 100 percent was initially administered. However, progressively increasing dyspnea and inability to maintain an arterial oxygen level greater than 50 mm. Hg led to the patient's intubation. Despite therapy providing an FIO_2 greater than 80 mm. Hg and positive end expiratory pressure of 20 cm. water, severe hypoxemia persisted and the patient expired 12 hours later. Chest x-ray film showed total opacification of both lungs.

Autopsy revealed disseminated tuberculosis extensively involving the lungs, liver, kidney, spleen, and bone marrow. Pulmonary hilar and paratracheal lymph nodes showed chronic fibrosis and atrophy, with the exception of one hilar node where fresh caseation without bronchial infiltration was observed. An exudative pneumonitis with multiple polymorphonuclear leukocytes consistent with hypersensitivity reaction at the right base was also noted. Smears from the lung, liver, kidney, and spleen were positive for acid-fast bacilli. Cultures were also positive for *Mycobacterium tuberculosis*. The pathologic findings were interpreted as miliary tuberculosis secondary to recrudescence of an old primary lesion with discharge of tubercle bacilli into the blood stream.

Comment

ARDS, characterized by marked respiratory distress, tachypnea, cyanosis, and respiratory hypoxemia despite ventilatory assistance, is an important medical problem associated with a variety of direct and indirect pulmonary complications.[10] Pulmonary vascular congestion is present clinically, and diffuse alveolar infiltrates are seen on chest roentgenogram. At pathologic examination, one sees intra-alveolar hyaline membranes.[11] A wide variety of conditions have been associated with this syndrome including shock, chest trauma, drugs, viral pneumonia, and fat embolism.[12]

Miliary tuberculosis is a rare cause of ARDS; only 8 cases have been described, of whom 2 survived. The manner in which miliary tuberculosis produces ARDS is not known. Injury to alveolar capillary membranes causing increased permeability to fluid-containing solutes and protein has been postulated.[13] According to Huseby and Hudson,[8] this injury may result from massive release of mycobacteria into the pulmonary circulation causing damage to the capillary endothelium, interstitial granulomatous infiltration, or a cell-mediated hypersensitivity reaction leading to increased vascular permeability. Mismatching of ventilation and impaired diffusing capacity would thus occur.

DIC (disseminated intravascular coagulation), which may coexist in patients with ARDS, was found to be present in 7 of the 8 previously reported cases of miliary tuberculosis and ARDS.[14] DIC has also been reported in patients with miliary tuberculosis who did not develop ARDS. The etiology is not known.[15]

Goldfine and colleagues[16] described a patient with miliary tuberculosis and DIC who may have had concomitant ARDS as suggested by the presence of severe respiratory distress, tachycardia, arterial oxygen pressure of 32 mm. Hg on 3 L. oxygen, and bilateral diffuse pulmonary infiltrates.

The patient reported by Homan et al.[7] was a 58-year-old woman with fever, dyspnea, rapidly progressive hypoxemia, and a clinical picture of catastrophic respiratory failure. The patient was treated with a membrane oxygenator and a Bentley ventricle pump. The diagnosis of miliary tuberculosis was not suspected clinically but was proved at autopsy.

Huseby and Hudson[8] described 3 patients with miliary tuberculosis, 2 of whom showed diffuse nodular infiltrates on chest x-ray and sputums positive for acid-fast bacilli, and who develped ARDS despite treatment with antituberculous drugs. The third patient initially had a normal chest x-ray film but showed clinical ARDS with diffuse alveolar infiltrates on chest x-ray 20 days later. Murray et al.,[9] described 3 patients, 2 of whom survived. Two of the 3 patients had bilateral reticulonodular infiltrates on chest roentgenogram, and the third patient had bilateral interstitial infiltrates. All 3 patients received antituberculous therapy.

All previously described patients with ARDS associated with miliary tuberculosis were 45 years of age or older; 7 of 8 were black, and most were debilitated with a systemic illness. Four of the patients had a history of chronic alcohol abuse. Intermediate PPD was negative in 5 patients and not stated in 3. Liver function test results were abnormal in 4 patients.

In one series[17] of 28 patients with disseminated tuberculosis, the fatality rate of 36 percent (10 patients) was directly attributed to failure to recognize the disease because of absence of cough and night sweats, negative intermediate PPD, leukocyte shift to the left, increased serum alkaline phosphatase, and normal or near-normal chest roentgenograms in varying numbers of patients. Our case exemplifies some of the difficulties in establishing the diagnosis of miliary tuberculosis, even when it is suspected.

In addition, this case shows that miliary tuberculosis may be associated with ARDS. Our patient had several unique features not previously described in patients with ARDS and miliary tuberculosis. He was young, in previously excellent health, and had none of the illnesses or factors which predispose to the development of miliary tuberculosis or ARDS. His initial chest x-ray film was also normal.

In patients with miliary tuberculosis, progression to ARDS may occur early in the course of recognized illness even when there is no evidence on chest x-ray of miliary spread. Early diagnosis of miliary tuberculosis and prompt initiation of antituberculous therapy may prevent the occurrence of this serious complication. The outcome, however, is by no means certain, in view of the high mortality rate and

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Summary

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References

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Notice of availability

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What makes a good neighborhood?

Clean streets? A new playground? Well-kept lawns?

That's only part of it.

The real measure of a neighborhood is its people and the concern and interest that we show for one another.

Especially for those who may be less fortunate than ourselves. Like people who are mentally retarded.

Retarded people may be limited in their ability to learn and in the type of work they can do, but not in their ability to be friendly, caring, responsible members of the community.

People who are mentally retarded can make good neighbors. And having good neighbors, means having a good neighborhood.

Let's support efforts in our community and neighborhoods, to provide supervised homes for mentally retarded people.

Being retarded never stopped anyone from being a good neighbor.

Yersinia Enterocolitica Pneumonia

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Yersinia enterocolitica is a gram-negative pleomorphic rod which derives its clinical importance from its role as an enteric pathogen. *Y. enterocolitica* infection of human beings was described relatively recently[1] and usually causes mild disease. The gastroenteritis that accounts for about two thirds of clinical infections is self-limited. The illness usually resolves in one to two weeks without antibiotic therapy. A septicemic form of the infection exists, however. Septicemia occurs in debilitated patients, especially those with cirrhosis, and can be associated with a 50 percent mortality rate.[2,3]

We present the following case of a patient with *Y. enterocolitica* infection with protean manifestations including pneumonia, septicemia, and hematuria. The case illustrates the role of *Y. enterocolitica* as an etiologic agent in the differential diagnosis of pulmonary infiltrates and septicemia. Consideration of such a possibility should aid in decreasing the substantial rate of mortality due to such infections.

Case report

The patient was a 43-year-old male with a long history of excessive alcohol consumption. He was a nonsmoker and had no known medical problems. His illness began with diffuse abdominal pain and distention, shaking chills, and a debilitating, hacking, minimally productive cough. After four days of such symptoms he noted gross hematuria, prompting his presentation and admission to a community hospital. He was coughing and appeared acutely ill on initial examination. His rectal temperature was 39.4°C. Poor dental hygiene and bleeding gums were evident. Rales were heard over the right basilar lung field and the cardiac examination gave normal results. Ascites was present and the spleen was easily palpable. The liver was firm but not enlarged. Initial laboratory data revealed a total peripheral blood leukocyte count of 15,000 per cubic millimeter with 68 percent segmented forms, 2 percent bands, and 20 percent lymphocytes. The patient's hematocrit was 43 percent and his platelet count was 60,000. Urinalysis revealed 4 plus protein and "too-numerous-to-count" red blood cells, but no casts were seen. Serum albumin was 2.3 Gm. per deciliter, bilirubin was 1.5 mg. per deciliter, but all liver enzyme levels were normal A chest roentgenogram obtained on admission showed bibasilar lower lobe infiltrates, bilateral hilar calcifications, and a calcified nodule in the left midlung field. A supine roentgenogram of the abdomen showed a paralytic ileus and a right suprarenal calcification. An intravenous pyelogram demonstrated well-functioning kidneys and no structural defects. Results of a bone marrow aspirate were consistent with a leukemoid reaction. Sputum could not be obtained. With a presumptive diagnosis of pneumonia, cephalothin, 1 Gm. intravenously every six hours, was begun. Despite the initiation of antibiotic therapy the patient continued to be febrile, with intermittent temperature peaks of 39.4°C. On the third day of hospitalization, his antibiotic therapy was changed to cefamandole, 8 Gm. daily, and clindamycin, 3 Gm. daily. He remained febrile and became hypotensive and dyspneic. Because of his deteriorating course he was transferred to Strong Memorial Hospital on the fourth hospital day.

Examination of the patient after transfer revealed bibasilar rales. His blood pressure was 100/60, his temperature was 38.8°C., and his respiratory rate was 32. A chest x-ray film revealed a fluffy bibasilar interstitial nodular infiltrate (Fig. 1). Since the patient was still unable to produce sputum, a transtracheal aspiration was attempted. The procedure was terminated prematurely because of marked clinically evident hypoxia but a postprocedure coughed sputum specimen was obtained. Stained smears of this sputum showed a large number of polymorphonuclear leukocytes, scattered squamous epithelial cells (fewer than 5 per high power field), a moderate number of gram-negative rods, and no acid-fast bacteria. An arterial blood gas test with the patient breathing room air showed: pH 7.45, oxygen pressure 52, and carbon dioxide pressure 23. A urinalysis showed 2 plus albumin, 6 to 8 red blood cells, 2 to 3 coarse granular casts, and five hyaline casts per high power field. A paracentesis revealed hazy, straw-colored ascitic fluid with 800 leukocytes and 300 red cells per cubic millimeter. No organisms were seen on Gram stain or acid-fast bacterial stain of the fluid. The patient's peripheral leukocyte count was 25,000 per cubic millimeter with 81 percent polymorphonuclear cells and 12 percent bands. Cultures of blood, urine, and peritoneal fluid were obtained. The hilar and left midlung field calcification seen on roentgenogram suggested the possibility of tuberculosis, and the patient received

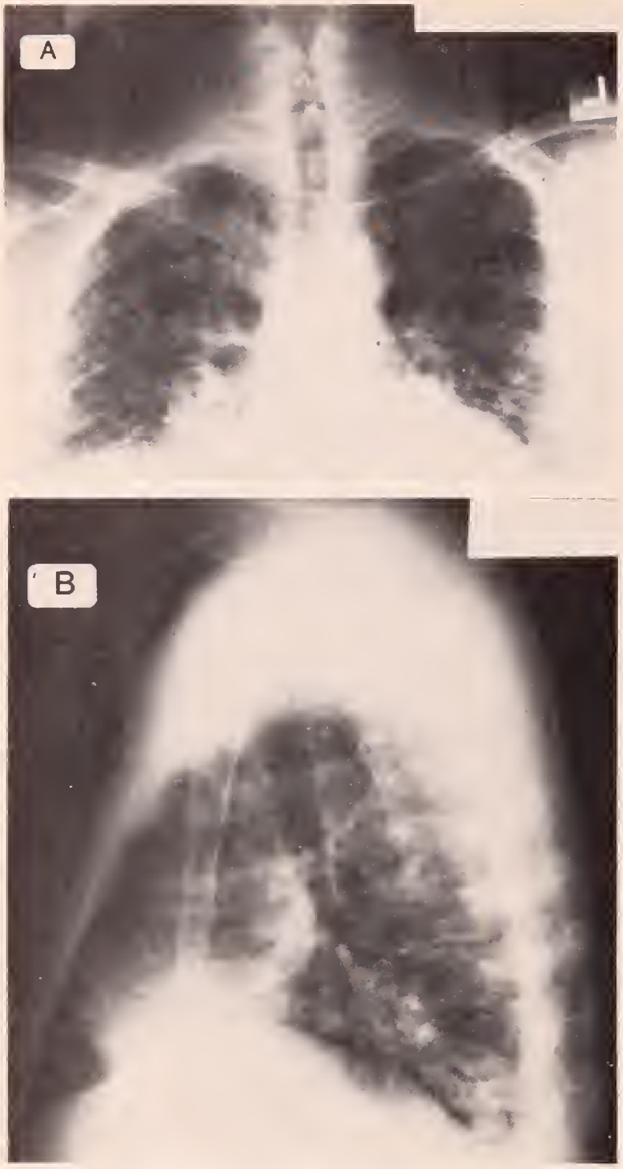

FIGURE 1. Roentgenograms of chest on admission showing presence of bibasilar infiltrates (A, B).

methylprednisolone, 40 mg. intravenously, to treat possible adrenal insufficiency manifested by hypotension. (A corticotropin stimulation test performed prior to the administration of steroids subsequently was shown to be normal.) Broad-spectrum antibiotic coverage was instituted using isoniazid, rifampin, ampicillin, clindamycin, and amikacin sulfate to treat suspected pneumonia and peritonitis.

Y. enterocolitica, serotype 8, was isolated from two of the three blood cultures. Yeast, scant normal flora, and 2 plus (moderate) *Y. enterocolitica* were isolated from the sputum culture obtained after attempted transtracheal aspiration. No microorganisms were isolated from the peritoneal fluid or urine. *Y. enterocolitica* was not isolated from repeated cold-enhanced stool cultures. The blood and sputum isolates of the organism were sensitive to ampicillin, cefoxitin, cefamandole, chloramphenicol, trimethoprim-sulfamethoxazole, tetracycline, and all aminoglycosides as determined by standard Kirby-Bauer disk susceptibility assay. The isolates were resistant to cephalothin and intermediate in susceptibility to carbenicillin. Therapy was continued with ampicillin, 9 Gm. daily and amikacin sulfate, 1 Gm. daily for three weeks.

A liver biopsy performed prior to discharge revealed cirrhosis of the liver, probably due to excess alcohol consumption. Tests using acute and convalescent sera from the patient showed no significant change in antibody titer to *Y. enterocolitica*. The antibody titers* remained at 1:4. The patient recovered completely, the chest roentgenogram showed clearing, and he was discharged approximately three weeks after admission.

Comment

The above case illustrates several of the protean manifestations of *Y. enterocolitica* infection. The case also emphasizes the importance of considering this organism as a cause of pneumonia and septicemia, especially in patients with cirrhosis. While septicemia is a relatively uncommon manifestation of disease with this organism, the very high mortality rate associated with septicemia makes its recognition and treatment imperative.

Most of the approximately 40 serotypes are sensitive to aminoglycosides, trimethoprim-sulfamethoxisole, chloramphenicol, and tetracycline. Type 8, the serotype prevalent in the United States, is generally sensitive to ampicillin,[4] but serotypes 1, 3, and 9, prevalent in Europe and Canada, have unpredictable ampicillin sensitivity. Type 8 organisms are usually resistant to cephalothin, the first drug chosen for treatment in the present case.

The number of *Y. enterocolitica* infections reported from Europe and Canada has been greatly in excess of cases reported in the United States.[5] From 1935 to 1975 only 61 cases of *Y. enterocolitica* infection were reported in the United States.[4] However, 47 of the cases were documented since 1968. This trend suggests either an increased recognition or an increased incidence of *Y. enterocolitica* infection, or possibly both. *Y. enterocolitica* infection has been associated with mesenteric adenitis,[6] erythema nodosum,[7] septic arthritis,[8–10] postinfectious arthritis,[11,12] cellulitis,[3] glomerulonephritis,[13] pneumonia,[10,14,15] sarcoid-like hilar adenopathy,[16] meningitis,[17] hematuria,[13,18] and isolated superficial abscesses.[19] Immunocompromised or otherwise debilitated individuals are more frequently reported to have septicemia with *Y. enterocolitica* infection.[3,15,20] Septicemia may also occur in normal hosts, usually neonates[21] or elderly individuals.[8,22–24] Preexisting liver disease appears to be common in cases of septicemia. In one series, 9 of 13 septicemic patients had documented cirrhosis.[3] Substantial alcohol consumption was reported in two other cases of *Y. enterocolitica* septicemia[14,24] as well as in the present case. A third case involved a patient with chronic active hepatitis who was taking prednisone daily.[15]

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* Performed by Dr. T. Quan, Center for Disease Control, Fort Collins, Colorado.

The presumed portal of entry of *Y. enterocolitica* is via ingestion of water or food sources contaminated with the organism.[8] In the present case there was no recognized source for gastrointestinal acquisition of the organism. Debilitating cough was an early symptom in our patient, and pulmonary infiltrates were present on arrival at the hospital. We cannot completely exclude the possibility that the positive sputum culture reflected contamination with blood during transtracheal aspiration. However, this is unlikely in view of the slight amount of bleeding that occurred, and the immediate Gram stain of the sputum which revealed many polymorphonuclear leukocytes and a vast predominance of gram-negative organisms. Alcoholic patients have been reported to have more frequent and substantial colonization with gram-negative organisms than do normal individuals,[26] perhaps accounting in part for the increased incidence of gram-negative pneumonias in alcoholic patients.[27] It is possible that the upper respiratory tract was the portal of entry in the present case. However, entry through the gastrointestinal tract with seeding of the peritoneum, blood, and lungs cannot be ruled out. The 800 leukocytes per cubic millimeter found in the peritoneal fluid would not establish the diagnosis of bacterial peritonitis without an absolute granulocyte count.[28] The patient was not shown by culture to have peritonitis due to *Y. enterocolitica*, and review of the chest roentgenograms did not support septic pulmonary emboli as an alternative explanation for the pneumonia.

Pulmonary infiltrates, often described as finely nodular, have been noted in several patients with *Y. enterocolitica* septicemia.[3,10,14,15,20,22,29] In Rabson's series of 13 patients with *Y. enterocolitica* septicemia, three had pulmonary infiltrates[3] which were not clearly established to be caused by *Y. enterocolitica*. Three other patients with pulmonary infection with *Y. enterocolitica*, established by sputum cultures, have been reported in the literature.[10,14,15] In one of these patients[10] the source of pulmonary infection was thought to be septic pulmonary emboli from an infected joint. In another,[14] a lung abscess with contiguous spread involving the ribs with osteomyelitis was reported. The present case is only the second to report what appears to be a primary pneumonic process, and it is the first such case to be reported in the United States. This is also the first report of a pneumonic complication with a type 8 organism, the serotype which is prevalent in the United States.[4]

The proper duration of treatment of *Y. enterocolitica* pneumonia has not been established. The three week course of antibiotics given this patient was successful in preventing complications, and shorter treatment regimens have been inadequate.[8]

The patient reported here had hematuria, which has been noted in approximately 8 percent of patients with serologic evidence of *Y. enterocolitica* infection.[18] Glomerulonephritis has been shown histologically in at least some cases.[13,18] The hematuria in the present case cleared after treatment. No renal impairment developed, nor was the etiology of the hematuria established.

In this patient's case as well as others reported in the literature, the diagnosis of *Y. enterocolitica* was unexpected. The diagnosis can be established serologically, though this is not always the case, as illustrated by the lack of serologic response in our patient. Although unusual, failure to evoke a serologic response to severe infection has been reported.[15] In Ahvonen's large series from Finland,[30] three patients who did not mount a serologic response to their infection had isolates showing the same biochemical and other characteristics as serotype 8 organisms. This may reflect features of infections with serotype 8 organisms, or may reflect inaccurate diagnostic serology for this serotype.*

The ability of *Y. enterocolitica* to cause pneumonia is not widely appreciated, but this organism should be expected in compromised hosts, especially cirrhotic patients who have septicemia and pulmonary infiltrates. Cultures of blood, sputum, and stool should be obtained. Unless specifically sought, the diagnosis of *Y. enterocolitica* infection may not be established, and appropriate therapy may be delayed.

Summary

A case of *Y. enterocolitica* pneumonia and septicemia is described. The incidence of infection with this organism is increasing, and protean manifestations of infection are described. Consideration of *Y. enterocolitica* in the differential diagnosis of septicemia and pulmonary infiltrates, particularly in patients with cirrhosis, may prevent delay of appropriate therapy and lead to a reduction of the substantial mortality rate in such cases.

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Surgeons often close incisions with staples rather than sewing

No longer does the surgeon always sew you back up after surgery. Often nowadays it's done with staples.

Surgical stapling devices were developed by Russian surgeons in the 1960s and later modified and fitted for disposable loading units in America. They are now widely used throughout the world.

Peter H. Weil, M.D., of St. Joseph's Hospital and Medical Center, Paterson, N.J., reports in the January issue of an American Medical Association publication on a comparison of stapled and hand-sutured procedures. For one particular operation, gastrectomy (removal of part of the stomach for ulcers or a tumor) stapling proved at least as safe if not safer than conventional hand suture, Dr. Weil found.

Dr. Weil analyzed reports of 545 gastrectomies at three New York City hospitals. In 474 procedures in which hand sutures were used, there were 12 complications (leaks, hemorrhage or obstruction). There were no complications in 71 stapled procedures.

Stapling is much faster than sewing, thus saving time in completing the surgery, Dr. Weil says. Operation of the stapling device can be easily learned, he adds, and "is probably safer in the hands of a less experienced surgeon than hand-suture methods."

Staples are not effective in all types of surgery, particularly when dealing with tumorous or infected tissues, he says.

The report is in the January Archives of Surgery.

Guillain-Barré Syndrome

Association with mumps

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The association of GBS (Guillain-Barré syndrome) with mumps is very unusual but has already been reported.[1–13] Most of these cases were not a typical GBS according to the criteria proposed by a committee of the American Academy of Neurology.[14] The pathophysiologic basis of this association is not clear and is hard to explain. It is suggested that immunologic mechanisms play an important role in the etiologic connection between these two entities.[15–21] The use of mumps vaccine is spreading. As CNS (central nervous system) effects of mumps vaccine become known[22] and GBS is in general a known postcomplication of vaccination,[10] we might see this association more frequently. For these reasons we find a special interest in describing the following case, which we studied immunologically.

Case report

A 25-year-old man was admitted to our department because of weakness and pain in the shoulder girdle and right facial palsy; 20 days before his admission (and 12 days after his son had had mumps complicated with meningoencephalitis), his parotid glands had become swollen, and 5 days later the left side of the scrotum had become red and tender. During this period he had fever up to 39.6°C., and felt nausea and weakness; 5 days later (that is, 10 days after the parotitis appeared) he started to complain of weakness in both legs.

A day later the patient felt pain and weakness in his right arm and shoulder, and a few days later in his left arm and shoulder. It was accompanied by numbness in the elbows, spreading to the shoulders, and by tingling in the tongue. One day before admission he felt paralysis of the right side of his face. He became very depressed and anxious in the last few preadmission days.

On examination, his temperature read 36.8°C., pulse rate was 116 per minute, and blood pressure 140/95 mm. Hg. There was no swelling of parotid glands or of testicles. Neurologic examination disclosed peripheral facial palsy of the right side, symmetrical motor paresis of both arms and shoulder girdles, tricipital and bicipital hyporeflexia, motor paresis of both legs with hyporeflexia of knee jerks, and no sensory loss. No signs of meningeal irritation were found. Lumbar puncture revealed a clear fluid under normal pressure. Pandy test findings were positive, protein 122 mg. and glucose 74 mg. per deciliter, and no cells were found. No virus was isolated from the cerebrospinal fluid. EMG (electromyogram) findings of the suprascapular muscles, the only muscles still involved when the EMG was done, were consistent with neuritis.

The patient was put on corticotropin (Acthar), 0.5 mg., intravenously daily, and three days later slow recovery began, starting with disappearance of the facial palsy. On the fifth hospital day (15 days after onset of the syndrome) the jerks in the right arm returned, and on the seventh day there was improvement in the left arm. On the tenth hospital day, intramuscular administration of corticotropin, 0.5 mg. daily, was begun, and the patient was discharged on the twelfth day. About 10 weeks later, the patient had regained complete upper-extremity strength, and the arm-jerks' condition had normalized. The heart rate was 76 per minute, and the blood pressure 130/80 mm. Hg.

Studies

Virologic. On admission, the hemagglutination inhibition antimumps antibody titer was 1:80, 10 days later, it was 1:160, and 4 months later, it was 1:20. Antibodies against adenovirus C.F. (complement fixation) (1:10), herpes simplex virus (C.F. < 1:10), Epstein-Barr virus (C.F. < 1:10) and cytomegalovirus (C.F. < 1:10) showed no titer changes over the same period of time.

Immunologic. Serum protein electrophoresis tested out normal. Quantitative immunoglobulin determination showed Ig (immunoglobulin) G 12 mg., IgA 1.8 mg., and IgM 2.5 mg. per milliliter. The levels of the C′ (complement component) 3 (1.15 mg.) and C′4 (0.2 mg. per milliliter) were normal. Antiglobulins (latex agglutination) were undetectable. Antinuclear antibodies, antithyroid antibodies (anticytoplasmic and antithyroglobulin), antismooth muscle antibodies, antimitochondrial antibodies, and antiparietal cell antibodies were all undetectable by

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indirect immunofluorescence. Lymphocytes in peripheral blood were 2,070 per cubic millimeter, 67 percent (1,300 per cubic millimeter) of them were E-rosette forming cells and 30 percent (600 per cubic millimeter) of them were EAC (erythrocyte antibody complement)-rosette forming cells. Blastogenic response of lymphocytes to PHA (phytohemagglutinin) stimulation in vitro was normal. Skin test findings with a battery of four antigens—PPD (purified protein derivative), SK (streptokinase)-SD (streptodornase), mumps, and Candida—were found to be positive with three of them and negative with one (Candida).

Comment

The most common neurologic complication of mumps is meningitis, and there exists considerable evidence that this is due to direct virus invasion of the meninges.[5,26] Neurologic complications other than meningoencephalitis are very uncommon, but transverse myelitis and various peripheral neuropathic conditions have been described.[5]

The first case considered to be GBS-complicating mumps was reported in 1886.[1] By 1978, when a committee of the American Academy of Neurology proposed its criteria defining GBS,[14] about 18 cases of polyneuritis associated with mumps had been reported.[1–13] Most of them[1–5] were not a typical GBS according to the criteria mentioned here. Additional cases were not fully documented.[9,10] None of these was studied extensively to find immunologic abnormalities. Thus, the association of GBS with mumps and its clinical features and prognosis remain unclear. However, the clinical and laboratory findings in our patient suggest that the GBS occurred as a complication of mumps.

The development of GBS is usually preceded by a viral illness.[10] The link between the preceding infection and demyelination, which is thought to underlie the neural lesions, remains obscure.[23,24] It is generally accepted that there is a cell-mediated autoimmune attack on myelin. This assumption is based mainly on the similarity between the pathologic lesions of GBS and experimental allergic neuritis (EAN) in animals,[15] and the occurrence in both conditions of antibodies and lymphocytes sensitized to myelin.[16–20] However, there is still no conclusive evidence that sensitization to myelin basic protein is involved in the pathogenesis of GBS,[25] and Goust et al.[21] suggested recently that the cause of GBS may involve a decrease in suppressor T cells in association with the appearance of circulating immune complexes. Sensitized lymphocytes may reflect a secondary immune reaction to primary nerve-tissue destruction as was demonstrated in patients, after a cerebrovascular accident, whose lymphocytes became sensitized to a central-nervous-tissue antigen.[16] Moreover, Caspary et al.[17] reported that the lymphocytes of GBS patients are sensitized to CNS basic encephalitogenic protein and to muscle homogenate as well.

We studied the general immunologic status of our patient to determine if there was a basic defect in his immune system that made him susceptible to the development of the GBS. We found no abnormality in his humoral and cellular immunity.

The pathogenesis of orchitis in the course of the mumps infection is not clear. Previous studies found no correlation between the occurrence of nervous complications and the severity of parotid disease or of epididymo-orchitis.[26] A survey of the literature revealed that among 10 fully documented male cases with mumps and the GBS (including our case), 5 (50 percent) had preceding orchitis. Indeed, this is too small a series for any statistical evaluation, but considering the reported up-to-20 percent incidence of orchitis as a complication of mumps in postpubertal males[22] and the rarity of this complication in young boys with mumps, we think that the high incidence (50 percent) of orchitis found in the surveyed cases of mumps complicated by GBS is of interest.

We conclude that the GBS and its potentially severe sequelae should be considered in patients with mumps or post-mumps vaccination who develop signs of a peripheral neuropathic condition. The possible link between the development of GBS and a preceding orchitis deserves consideration.

Summary

We have described a rare association between mumps and the GBS (Guillain-Barré syndrome). No immunologic abnormality was found in our patient. The role of immunologic mechanisms in the pathogenesis of the GBS and its association with the antecedent mumps infection are discussed. A survey of the literature revealed that among 10 fully documented male cases with mumps and GBS, 5 (50 percent) had preceding orchitis. Thus, we raise the question of a possible relationship between the development of GBS and a preceding orchitis in mumps patients.

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Teenage suicides*

In 1957, the reported suicide rate among young people aged 15 to 24 years was 4 per 100,000; in 1975, the figure had risen to 12.2 per 100,000. Hart (Catholic University, Washington) and Keidel (American University, Washington) note that these statistics do not reflect the untold numbers of suicides that remain unreported or are classified as accidental deaths.

Studies suggest that attempted suicide is strongly related to social disorganization and extreme family conflict. Among characteristics that identify people most susceptible to suicide are previous suicide attempts, threatened suicide, family history of suicide, chronic illness, recent bereavement, severe depression, severe domestic difficulties, and chronic use of bromides, barbiturates, alcohol, or hallucinogenic agents. In adolescents, depression may be marked by acting-out tendencies, delinquent behavior, or excessive use of drugs and alcohol. Increased isolation, giving away of prized possessions, or a sudden and unexpected elevation of mood signals immediate danger.

The school nurse is in a unique position to help prevent suicide. Alert to warning signals in potentially suicidal adolescents, the nurse can offer direct counseling or make referral to an appropriate mental health service. The nurse can develop in-service education programs for teachers, speak at PTA meetings, and promote courses for students on emotional health. Students need to know that the nurse is a caring adult with whom they can voice their feelings and discuss their depressions. For seriously troubled youngsters, the nurse might serve as a liaison between parents and teenager; both will need support and should be involved in a total plan of care.

If the student actually attempts suicide, the school nurse might accompany the patient to the emergency room and provide support for all family members. They will also need assistance after the acute crisis, especially when the teenager is discharged from a psychiatric unit. If the adolescent succeeds in committing suicide, the school nurse can help parents and classmates cope with their loss.

Hart N. A., and Keidel G. C.: The suicidal adolescent, Am. J. Nurs. 79: 80 (1979).

* Ross timesaver; Pediatric nursing currents, 26: 17 (Sept.–Oct.) 1979.

The Aging

Mental health problems

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This report deals with some of the problems of mental health and the aging as seen from a national perspective; it also will describe some of the activities in which the NIMH (National Institute of Mental Health) has been engaged and which are being launched or are about to be launched in this critical area.

Elderly population

It has been reported that persons over 65 years of age constituted somewhere in the neighborhood of 11 percent of the nation's population in 1980. It is projected, however, that that proportion of our population will almost double by the end of the first quarter of the next century. This is a very positive development; it means that people are living longer. It means that we are providing services that are allowing people to function and to gain satisfaction out of life for a greater period of time. This obviously affects the perspective each and every one of us has regarding our own lives.

Mental health problems

Although there is a bright side to this trend, there is also a serious side. We are very much concerned about the mental health problems of the elderly. Illness is more prevalent among the elderly than among young adults; several studies have indicated that 18 to 25 percent of older people have significant mental health problems. For example, psychosis, one of the most serious forms of mental disorders, is significantly more prevalent after age 65, and even more so after age 75. Among persons 75 and older, psychosis is found twice as frequently as it is, for example, in the age range from 25 to 35. Also, suicide is more common among persons 65 years and older than among any other age group. Senile dementia is now recognized as either the fourth or fifth leading cause of death, and depression is very common in elderly people. Also, we know that chronic general health problems usually bring major psychiatric and psychologic difficulties in their wake. Since more than 80 percent, or roughly 5 out of 6 elderly people, have chronic health problems of various causes, you can imagine how many of them are also suffering related psychiatric difficulties or stress as a result of their loss of health.

Loneliness of elderly

There are elementary facts regarding the elderly that I believe place them at higher risk for mental health problems. First, older people often live alone without adequate social support. Among men over 65, nearly 1 in 7 lives alone; among women over 65, nearly 1 in 3 lives alone. In addition, older people experience the terribly disturbing phenomenon of losing many of the significant people in their lives; 17 percent of men 65 or older are widowed and 30 percent of men older than 75 have lost their spouses. Among women, and you will see that the problem is even worse for them, 54 percent of those over 65 have lost their spouses and 70 percent of women over 75 are widowed.

These developments have adverse effects on the opportunity for social interchange, and for sexual relationships between men and women as they become older. The difference in mortality rates for men and women means that couples are split as a result of the loss of one or the other. By age 65, women outnumber men by a ratio of 4 to 3, and, by age 85, they outnumber men by a ratio of 2 to 1. This elimination of the possibility for close relationships has been recognized by mental health and general health practitioners for some time as one of the most serious kinds of stresses for any individual, young or old.

Income level

When you add that stress to the fact that older people often have a loss in their level of income, a loss in their friends, a loss in their feeling of active productivity within the society, and a loss in their flexibility and mobility by virtue of their reduced resources secondary to inflation, you can see at what high risk they are for major psychiatric and psychologic problems. With regard to income, 15 percent of those 65 and older are below the poverty level, with a significant number near it.

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* By invitation.

Mental health services

Given these stresses, the risks, and the likelihood that elderly people will have mental disorders, what can be said about the mental health service system and elderly people? The problems are formidable. For example, people 65 or older represent about 11 percent of the population, and also have a higher prevalence of mental disorders than younger adults, yet only about 4 percent of patients seen at outpatient mental health clinics are 65 or older. Furthermore, only 2 percent of patients at private psychiatric clinics are 65 and older. The question of why such small numbers of elderly people are seen in mental health settings is one of disturbing complexity to us. It is possible, however, that one can identify some of the explanatory factors in this regard. For example, take a look at the nature of our third-party coverage for mental health care services for elderly people. There is a restriction on outpatient benefits of $250 for mental health care under Medicare. Also the elderly are required to pay 50 percent of their bill for mental health care; in other words, they have a 50 percent coinsurance clause. In contrast, when they go for the treatment of physical problems, they have only a 20-percent requirement. Now, how does this come together with regard to an individual patient? If an individual has pneumonia, he or she goes for treatment and there is no limit on their reimbursement. A portion of the bill does have to be paid by the insured, but it is only about $20 on a $100 bill. In contrast, if such a person goes for treatment for a depressive condition, there is a limit of $250, and 50 percent of the bill has to be paid. Given the financial problems identified earlier, how are the elderly going to afford that? Probably many of them are hospitalized by their practitioner because it is felt that there are better reimbursement possibilities for inpatients. As a result, persons who possibly could have been treated as outpatients are being hospitalized. Furthermore, the entire system pays more money, an expenditure that is, in all probability, unnecessary.

There are other reasons why the elderly may come in lesser numbers for mental health services. Reference has been made herein to their decreased flexibility and mobility, to the reduced social contacts, and to the implication that people who might help them get there are not available. Reference has not been made to stigma, but this force, which has serious effects on the entire mental health system, has an influence here as well. Probably many elderly people, just like many younger people, are reluctant to acknowledge that they have a mental health problem, and are correspondingly reluctant to go to a psychiatrist for treatment.

In stark contrast with the rather small number of elderly people who are being seen in outpatient clinics, is the rather staggering fact that the proportion of people in public mental hospitals who are over 65 is about 30 percent. Take note of the disparity between the large numbers of people in institutions as opposed to those having outpatient treatment. Furthermore, although we are impressed with the fact that many of these people could be treated in partial-care settings, our third-party mechanisms dramatically handicap us from making them fully available to older people. I was directly involved in trying to establish a mental health service for elderly people in Denver, Colorado; that effort was constrained severely by the paucity of mental health care coverage for them in this country. We need to eliminate discriminatory restrictions on inpatient service for elderly people for mental health care. We also have to look at appropriate coverage for partial hospitalization for older people. Finally, although I have stressed that we have to have appropriate coverage for people in inpatient settings, we also have to recognize that the overwhelming majority of elderly people are not in institutional settings. For example, only about 5 percent of people over 65 are in hospitals or nursing homes. We must be attentive to the nature of community treatment settings, community supports, and outreach efforts in order to facilitate those people in their attempt to lead productive lives outside of institutions. And, as an essential part of these efforts, we also have to modify the limits on outpatient mental health care for elderly people.

NIMH involvement

Study centers. What is the NIMH doing in all this? First of all, the NIMH established, in the fall of 1975, the CSMHA (Center for Studies of Mental Health of the Aging). In addition, we have recommended amendments to the CMHC (Community Mental Health Centers) Act which mandate specialized services for the elderly. Furthermore, we have identified the elderly as one of our key priorities for research, training, and services programs. We have supported before the Congress a major administration legislative recommendation, and the Mental Health Systems Act, which includes the possibility of developing specialized services for the elderly. Recommendations have been put forth to improve Medicare benefits for the elderly, including improvement of the outpatient benefits. Demonstration programs to show that partial-care services can be effectively and economically offered to the elderly have been instigated.

Legislative thrusts. Some of these legislative thrusts have had important results. Since the incorporation of mandated special services for the elderly in the 1975 CMHC (Community Mental Health Centers) legislation, an increasing number of community-based mental health clinics and other psychiatric centers have been developing targeted programs for older patients. The State of Georgia, for example, through its State office on mental health, requires all 35 of its federally and nonfederally funded community mental health centers to have specific geriatric coordinators and geriatric programs.

These coordinators meet together four times a year to share ideas about program development and innovative use of local, state, and federal resources.

Clinical training. Other examples of the rapid growth of the field of mental health and aging include some of the work in clinical training. Until 1978 this country could claim only one specialty training program in geriatric psychiatry; by 1979 the NIMH had increased that to seven. These programs are located at: (1) Duke University, Durham, North Carolina, (2) Western Psychiatric Institute and Clinic, in Pittsburgh, Pennsylvania, (3) Texas Research Institute of Mental Sciences, Houston, (4) Illinois State Psychiatric Institute, Chicago, Illinois, (5) Wayne State University, Detroit, Michigan, (6) University of Texas, Houston, and (7) University of Washington, Seattle. Other programs are being planned or initiated, some with, others without, federal support. This will mean they finally will have some strategies for developing a cadre of geriatric psychiatric experts, and are looking at yet additional strategies to develop this needed group of experts.

Priority area. The NIMH also has modified its entire clinical training program to require that all programs in clinical training that we support target attention to certain priority areas; these areas include geriatrics. Therefore, we will see not only a development of geriatric experts, but also people who are trained in mental health generally who will be more knowledgeable about the needs of geriatric populations.

Research. We also have seen major developments in the area of research. Until the establishment of the CSMHA, most of the research focused on the elderly concerned service and psychosocial issues. These obviously are important. However, research on mental illnesses and the treatment of mental disorders in later life was largely absent. Since 1975, support for research on mental health and aging at NIMH has tripled from about $2.5 million to $7.5 million a year, and significant research on mental illnesses and their treatment is in progress. Major areas of study include senile dementia, depression, anxiety, and schizophrenia. A major new epidemiologic study has been started at Johns Hopkins University where the young/old—in other words, ages 65 to 75—and the old/old—75 and above—are being studied.

Extensive psychopharmacologic research is being conducted. This is especially true in the area of drugs being considered in the treatment of the organic brain syndromes, where comparative studies that are looking at the efficacy of psychotherapy versus drugs versus the combination of the two are being carried out. This is just one of the examples of their psychopharmacologic research.

Other studies. Also being supported are a number of other studies that focus on such issues as the mental health of the poor and urban black elderly. Other studies include: sexual adjustment and aging, mental health among the rural elderly, retired women, the effect of the illness of a spouse and death in older families, and the fear of victimization among the elderly.

In this regard, there traditionally has been a notion and a number of fantasies about what could or could not be done with elderly people, and what should or should not be made available to them. Elderly people like to live their lives as fully as anybody else. Therefore, the full range of human and social issues has be be explored, as we look at the elderly, just as we would look at them in any other population. Also important to the elderly are sexual adjustment, personal contacts, and their capacity to live free of fear.

Aside from the work we are supporting on the outside, a new program on geriatric psychiatric research has been introduced at the Institute. This is located in our intramural programs and is focusing on a variety of questions of importance with regard to psychopathologic problems among the elderly.

Agency collaboration. Additionally, collaborative efforts are under way with other federal agencies and departments. For example, the NIMH is working with the National Institute of Aging and the National Institute of Neurological and Communicative Diseases on studies of senile dementia, as well as with the Administration on Aging, with its nearly 700 AAA (Area Agencies on Aging), to see how these two enormous services—AAAs and CMHCs—can work better together. The NIMH is sensitive to the problems of the given consumer who has to contend with multiple different governmental systems. We are now exploring with the HSA (Health Services Administration) the potential relationships between community mental health centers and community health clinics in meeting the needs of older people. We are also exploring with the Housing and Urban Development (HUD) the mental health and psychosocial issues that surround housing for the elderly.

In the last several years, major attention has been paid to the mental health needs of the elderly at the social policy and national planning levels. Major committees and commissions looking at this area have included: (1) the Secretary's Committee on Mental Health and Mental Illness of the Elderly, (2) the President's Commission on Mental Health, (3) the Congressional Forum on Mental Health and Mental Illness of the Elderly, and (4) the coming 1981 White House Conference on Aging. These planning committee meetings took place last year, and were cohosted by Mrs. Rosalynn Carter and Congressman Claude Pepper.

Needs of elderly. For years, the problems of the elderly have often been ignored; many have had a pessimistic and fatalistic attitude toward the difficulties and needs of our elderly. I can remember this as a medical student, as an intern, and as a resident. One of the most gratifying experiences I had as a faculty member was supervising a young psychiatric resident who came in one day looking rather sad as he prepared to present the new patient, a 75-year-old woman, who had come in; he felt that there was little chance for therapeutic improvement and that the case was of little interest.

I worked with that resident very carefully, challenging the attitude he was taking. As a result, he went back and worked more intensively with the patient, and ended up being fascinated by her. She had lived 75 years and had had a rich and interesting life with her family and within the enormous social and historic changes that have taken place in this country. As a result of the new resident's interest and close attention, he was also able to help her overcome the psychologic distress from which she was suffering. He was gratified, she was improved, and I felt a deep sense of satisfaction. It would be satisfying to see examples such as this multiplied across the country. I have seen elderly people come into psychiatric hospitals, seemingly there for their terminal stay. And I have seen them walk out reinvigorated, ready to take on life again, and offering pleasure to those who are close to them.

Comment

I believe it is critical that the medical and psychiatric establishments give this priority attention. We who are in government, and particularly those of us who are at the NIMH, seek your input and advice as to the programs that we launch. We are optimistic about what our increasing knowledge base and interest in the elderly can accomplish in this country in terms of alleviation of disorders and promotion of mental health. What matters is not only "the elderly," and not only ourselves when we become "elderly," but it is also each of us, in having our own parents, uncles, aunts, and grandparents with and available to us, able to share with us life's pleasures. I think that society is finally awakening to these issues, and I feel very encouraged about the work we have begun and the work we will continue to do as we move into the 1980s and the 1990s.

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Dispute over FLEX, consumers California quits licensure group

California's maverick Board of Medical Quality Assurance (BMQA) withdrew from the Federation of State Medical Boards (FSMB) in a bid for major reforms of the national organization's policies.

The action culminated a three-year dispute in which the consumer-oriented BMQA sought greater influence over the contents of the Federation Licensing Examination (FLEX), and lobbied for nonphysician representation on the FSMB's board of directors.

Both sides expressed hopes for a reconciliation.

"The fact is that we need California and every other licensing authority working with us. If there was ever a time when we needed unity, it is now," said FSMB president Henry G. Cramblett, M.D.

In the meantime, the federation is considering whether the split will affect reciprocity between California licenses and those issued by other states. The FSMB's board of directors will take the question of reciprocity under advisement, said Dr. Cramblett, who is vice president for health sciences at Ohio State U.

He added that California's continued use of the FLEX is "problematical." As of January 1, the BMQA was no longer eligible for services that are available to dues-paying boards, he explained.

"My efforts are directed toward bringing them back into the federation . . . It is important to medicine that we should be united and have all the boards with us," said Dr. Cramblett.

Earlier this month, (January) Dr. Cramblett and FSMB president-elect Bryant L. Galusha, M.D., of Charlotte, N.C., travelled to New York to meet with Ben Winters, president of the BMQA, and Robert Rowland, executive director of the California board. The meeting had been called by the New York State Board of Medicine.

Robert D. Reinecke, M.D., chairman of the New York board, was unavailable for comment at press time, but board staffer Thomas Monahan said that the meeting was part of an "on-going dialogue" between the two licensing bodies.

Before voting to withdraw, the California board carefully considered the impact on reciprocity for out-of-state physicians seeking to move to California, and for California physicians who want to practice in other states, BMQA president Ben Winters told AMN.

"I don't think there is going to be any problem on that particular score at all," he said. "Our withdrawal from the federation should not affect (reciprocity) as long as California's licensing examinations are equivalent to those of other states."

Winters, who is a financial consultant in Los Angeles, added that the board plans to continue using the FLEX.

The rift between the activist state board and the national organization dates back to 1978, when the BMQA resolved to maintain its $5,000 membership in the FSMB, but only on a wait-and-see basis (*AMN* April 21, 1978).

"Last September, we realized that the federation really had not changed. It still tended to be an old boys' club. They did not want public membership, and the other boards were not moving in a direction that we thought state boards ought to move in," recalled Florence Stroud, R.N., who is president of the BMQA's division of licensing.

Meeting in Burlingame last fall, the board voted 8 to 6 to drop its affiliation with the federation. The decision was not announced or publicized.

According to Stroud, who is director of public health for the City of Berkeley, state medical boards should take a more aggressive role in setting standards for licensure and in accrediting medical schools. However, the BMQA's ideas are met with resistance at the FSMB.

"California is regarded as kooky and our complaints are viewed as being without substance," she said in an interview.

BMQA executive director Robert Rowland added that California's perspective may now be taken more seriously as a result of the board's dramatic withdrawal.

"The best possible outcome is that the action by this board could serve as a catalyst to increase the pace of change within the federation. Then California could rejoin the FSMB with no lasting ill feelings," he said. Richard Lewis, American Medical News, Jan. 30, 1981, p. 1.

Psychiatric Treatment in the Aged*

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The psychiatric disorders of old age include those present in earlier years and carried into or recurring in late life; and those more directly related to advanced years. Three of the disorders which frequently come to medical attention are chronic organic brain syndrome, depression, and paranoid reactions.

Chronic organic brain syndrome

Chronic organic brain syndrome is due to a diffuse, irreversible impairment of brain tissue function. It is manifested by impairment of orientation, memory, intellectual functioning and judgment; and by emotional shallowness and lability.[1] It has a gradually progressive course, ultimately leading to loss of capacity for personal and social relationships and for self-care. There may be disturbing associated symptoms such as wandering, noisiness, agitation, aggressiveness, depression, paranoid ideas, and hallucinations.

Chronic organic brain syndrome must be distinguished from acute and reversible organic brain syndrome, which usually is due to the effect of physical illness, drugs, or psychologic stress on an already marginally functioning brain.[2,3] The accurate diagnosis of acute organic brain syndrome requires a careful medical evaluation, including a complete medical history, thorough physical examination, brief neurologic examination, x-ray and laboratory studies, and other indicated procedures such as an electroencephalogram and a CAT scan (computer assisted tomography).[4] The specific treatment of the underlying and correctible cause of an acute organic brain syndrome can result in its reversal; if untreated, it usually will progress to dementia. It is particularly important to differentiate chronic organic brain syndrome from depression; a trial of antidepressant medication may be needed to do so.

A number of treatments have been proposed to improve cognitive functioning in chronic organic brain syndrome or to slow its rate of decline, including hyperbaric oxygen therapy, anticoagulants, procaine, and cerebrovascular dilators; these have been found generally ineffective. Dehydrogenated ergot alkaloids are reported to reduce confusion in the aged, and recent research with choline, lecithin, and physostigmine suggests that these cholinergic drugs may improve brain function in the elderly.[5]

The associated symptoms of chronic organic brain syndrome can be ameliorated with psychotropic medication. This should not be used routinely, but only after possible interpersonal or social causes have been investigated and remedied. Restraints are avoided as much as possible because of their tendency to agitate. When intellectual deterioration has progressed to a severe stage, long-term institutional placement may be necessary. Programs of sensory training, reality orientation, and resocialization help to prevent further regression in the institutionalized aged.

Depression

Depression is the most common mental disorder of late life. Minor depressions are usually reactive to the stress of an age-related loss such as a physical disability, the death of a spouse, or retirement. They are manifested by sadness, pervasive pessimism, and a general withdrawal of interest. Some reactive depressions are masked and expressed only by persistent somatic complaints.[6]

The major depressions are without obvious precipitating cause and often have a history of prior depressive episodes. They are marked by a sad mood, psychomotor retardation or agitation, poor appetite, weight loss, constipation, loss of libido, and insomnia or excessive sleep.[7] There may be suicidal ideation or intent; the possibility of suicide is of serious concern with depressed older people since the suicide rate in the elderly is higher than in any other age group.

Minor depressions usually respond to a supportive relationship. The major depressions and persistent minor depressions are treated most effectively with tricyclic antidepressants. Doxepin hydrochloride is the tricyclic of choice in treating older patients because it is least likely to affect cardiac function. Electroshock treatment is not contraindicated by old age, and should be considered after a reasonable trial of antidepressant medication. Five or six widely spaced treatments will usually bring about a remission; postshock confusion is minimized by giving the treatments unilaterally, over the nondominant side of the brain.[8]

Depression may be associated with somatic illness such as a viral infection, thyroid dysfunction, retroperitoneal cancer, or lymphoma.[9] It may also be

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caused or exacerbated by drugs such as levodopa, digitalis, reserpine, propranolol hydrochloride, and the phenothiazines.[10] The treatment of the depression in these cases is that of the disease or discontinuance of the offending drug.

Paranoid reactions

Paranoid reactions most commonly occur in the aged in reaction to physical limitation, cognitive impairment, social isolation, environmental instability, or impaired sight or hearing. The paranoid symptoms represent the patient's attempt to deny his disabilities and to counteract a feeling of loss of control by blaming others, frequently a relative or neighbor.

Paranoid patients are difficult to treat because it is hard to establish a trusting relationship with them. This can be a long process in which the therapist always must communicate in a straightforward, realistic way. The patient's delusions should not be contradicted nor supported; it is useful to focus instead on the patient's distress and to encourage him to accept medication for its relief. Paranoid symptoms respond well to antipsychotic drugs such as haloperidol and thioridazine. Other approaches are to arrange for a move to a more stable environment and for the correction of any visual or auditory defects. Hospitalization may be needed when a patient demonstrates hostile or physically aggressive behavior.

Drugs such as levodopa, corticosteroids, and indomethacin are known to cause paranoid symptoms which are alleviated when the responsible medication is discontinued.

Principles of pharmacotherapy in the aged

Psychotropic drugs should be prescribed cautiously for old people and only after the physician knows the patient's physical condition and his current medications, including over-the-counter preparations. This will decrease the likelihood of adverse drug reactions and interactions.

Age-related physical changes in the aged affect the absorption, distribution, detoxification, and elimination of drugs; and lead to their more prolonged action and a greater possibility of unwanted side-effects. The starting dose of psychotropic drugs in the aged should be one third to one half of the usual adult starting dose. It should be increased gradually until the desired therapeutic result is obtained, troublesome side-effects occur, or the maximum permissible dose is reached.

The continued need for a psychotropic drug should be reviewed regularly. The dosage should be reduced gradually after symptoms have been under control for an adequate period, and the drug ultimately discontinued; if symptoms recur, the medication is resumed. This procedure will reduce the patient's exposure to the drug and minimize undesirable complications.

Antiparkinson drugs should not be prescribed prophylactically. They should be given only after extrapyramidal side-effects appear and, in most instances, may be discontinued after these side-effects have been in remission for three months.[11] Tardive dyskinesia is an occasional side-effect of antipsychotic drugs given in high doses over an extended period, found chiefly in older women.

There is no known treatment for this condition, which is best prevented by careful, regular examination of the resting tongue for abnormal movements and discontinuing the drug at any indication of them.

Psychotherapy

Psychotherapy is useful in the treatment of psychiatric disorders in the aged, particularly those related to the losses of late life. While some old people have the motivation, psychologic aptitude, and flexible life circumstances to enable them to make use of insight therapy, the majority are better able to accept and benefit from a supportive form of psychotherapy.

Supportive therapy has as its object the relief of symptoms and the restoration of a reasonably satisfactory adaptation. The frequency and length of sessions are kept flexible and the therapist takes a relatively active and directive role. He works with the patient to define the current problem, to determine its probable cause, and to set realistic goals for therapy. He uses his knowledge of the patient and of available community facilities to help the patient adjust to losses through involvement in new interests and activities; he may give specific advice as to how to go about this or may actually initiate such a step himself. The therapist's interest can be a significant factor in helping restore an elderly patient's self-esteem.[12]

The use of group therapy with the elderly has been limited largely to institutional settings. In group therapy, the old person usually does not get involved in the kind of interaction that occurs in groups of younger adults. The elderly patient appears to benefit from the group setting primarily through the opportunity it presents to develop a personal attachment with the group leader, to whom problems are brought and from whose attitude he gains support.[13]

While the severity of an older person's physical, mental, or social disabilities ultimately may require placement in an institution, every effort should be made to maintain the elderly in their own homes for as long as possible. Visiting nurse services, homemaker and home health aide services, meals on wheels, friendly visitors, and telephone reassurance programs are among the community resources which can be utilized in this effort. The physician should refer the patient and his family to a social agency or social work practitioner for assistance in obtaining them.

Summary

The elderly have a wide range of psychiatric disorders, which can be approached with pharmacotherapy, psychotherapy, and environmental therapy. Special precautions are needed in prescribing psychotropic drugs for the aged because of their increased sensitivity to these agents. Psychotherapy can be useful with the aged but requires that the therapist take an active and more directive role than with younger adults. While the physician should be knowledgeable about community resources, including home care services which might enable an old person to remain in his own home, this aspect of care is outside of the physician's customary area of responsibility and is best handled by a referral to a social agency.

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Acknowledgments. The author wishes to express his appreciation to William Wolarsky, M.D., Medical Director of the Daughters of Jacob Geriatric Center, for his support of the activities on which this paper was based.

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Moss packing for nursery plants can cause skin ailment

Be careful in disposing of the moss that is packed around the roots of the plants and tree seedlings from the nursery. You could get sporotrichosis.

Sporotrichosis is a nasty skin disease that brings swellings, nodules and small ulcers, and can take some months to clear up. It is caused by spores found in sphagnum moss, the moss commonly used around nurseries and by agricultural and forestry workers to pack the roots of plants that are to be transplanted.

A break in the skin, even a small scratch, provides an opening for the spores.

Sporotrichosis is primarily an occupational disease of nursery and plant workers. Monna Grotte, M.D., reports on three cases seen at a skin disease clinic in St. Paul, Minnesota, all workers at the same Minnesota nursery. The report is in an American Medical Association specialty publication, Archives of Pathology and Laboratory Medicine.

Some years ago, says Dr. Grotte, a similar outbreak involved 14 workers in a state tree nursery in Vermont. Mississippi also reported an outbreak in 17 forestry workers. Supplier of the moss in both cases was from Wisconsin.

Most moss is not contaminated with the offending spores, but it is wise to be on the safe side and dispose of the packing moss carefully, with as little human touch as possible.

Dr. Grotte is with St. Paul Ramsey Medical Center.

Beginning of Radiology in 1896

First newspaper report of discovery of x-ray

ERNEST KRAFT, M.D.[a]
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New York City

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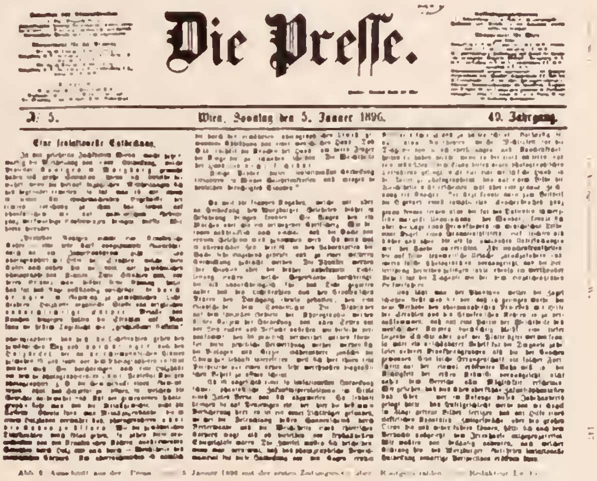

Die Preſſe.

Nr. 5. Wien, Sonntag den 5. Jänner 1896. 49. Jahrgang.

FIGURE 1. Photographic reproduction of front page of "Die Presse" of January 5, 1896, reporting discovery of x-ray by Professor Routgen.

Wilhelm Conrad Röntgen (1845–1923), professor of physics at the University of Würzburg, Germany, discovered the x-ray on November 8, 1895. After experimenting for 50 more days and nights, he took the notes of his "preliminary communication" to the printers for inclusion in the "Proceedings" of Würzburg's Physical-Medical Society. On January 1, 1896, he sent reprints and radiographs to several friends in Germany, Austria, and England. Four days later, the Sunday edition of Vienna's "Die Presse" contained the following front-page report (Fig. 1):[1]

> A SENSATIONAL DISCOVERY*
>
> In the scientific circles of Vienna, the report of a sensational discovery, apparently made by Professor Routgen of Würzburg, presently creates a great sensation. If the report proves correct, we will be confronted with an epoch-making scientific achievement which will bring about revolutionary changes in physics as well as in medicine. We hear: "Professor Routgen takes a Crookes tube, activated by an induction current, and produces pictures with the emanating rays on photographic plates. These hitherto unknown rays are completely invisible. In contrast to light rays, they penetrate wood, organic material, and solid bodies. Metals and bones, however, impede the rays. In daylight, one can take pictures with the cassette closed.
>
> This means that the rays penetrate the wooden cover which normally has to be removed for a photographic exposure. The rays also penetrate a wooden box with its contents. For example, Professor Routgen photographs a set of metal weights inside a wooden box without opening the lid. On the developed plate one sees the weights but not the wooden box. As ordinary light rays go through glass, these newly discovered rays, emanating from the Crookes tube, penetrate not only wood but also soft tissues of the human body. Most surprising is the radiograph of a human hand. The picture shows the bones with a ring seemingly floating around the finger, since the soft tissues of the hand are not visible.
>
> A few samples of this sensational discovery are circulating among Viennese scientists and create justifiable excitement. These are all the meager data which we have so far learned about the discovery of the Würzburg scientist. They sound like fairy tales or perhaps like an audacious April joke; but once more we must repeat that the matter is taken seriously by serious scientists. Physicists will investigate these heretofore unknown rays which go through objects impenetrable to light. The rays from Crookes tubes pierce solid objects like sunlight travels through glass. Pioneers of this special photography will soon investigate this discovery to make it useful for practical application. Biologists and physicians, especially surgeons, will become interested in the Ray as it might open new trails for diagnostic purposes. Such sensational discovery gives rise to speculation in the style of Jules Verne. It makes a lasting impression on those who are assured that a new ray has been found which carries the light of the bright sun through wooden planks and soft tissues as if they were made of crystal-clear glass. Doubts must vanish when one hears that photographic evidence of the discovery appears indisputable. So far

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* Translated by Dr. Kraft.

it can be assumed that the new ray could prove important for the diagnosis of bone injuries and diseases. From a technical standpoint, this new photographic procedure may succeed in clearly showing not only bones but also soft tissues of the hands. The physician, for example, could recognize a complicated fracture without painful manipulations. The traumatic surgeon could localize a foreign object, such as a bullet or shrapnel, much easier and without painful instrumentation. In non-traumatic bone diseases, such photographs will prove invaluable for diagnosis and therapy.

By further loosening the reins of fantasy, one can perceive that with perfection of the new method, superficial layers of soft tissues may remain transparent so that deeper layers will become visible. Such progress would improve the diagnosis of numerous diseases in addition to bone disorders. These potentialities of this new trail do not appear impossible provided that the original report can be confirmed. However, those who would have said at the beginning of the 19th century that future generations could photograph a flying bullet and have telephone conversations across the ocean would have been considered insane. We only wish to convey some directions in which the sensational discovery of Würzburg's scientist can unveil novel perspectives."

This newspaper leak developed as follows: On Saturday evening, January 4, 1896, Professor Franz Exner (1849–1926), one of the recipients of Röntgen's material, discussed the great discovery with a group of invited physicists during the late evening hours. Their enthusiasm overflowed and at midnight, one of the guests, Ernst Lecher, took the material to his father, who happened to be the editor of the newspaper. During the rush to meet the deadline of the Sunday edition, the editor misspelled Röntgen's name, and the discovery of "Routgen" echoed throughout the world. Despite the sudden challenge, Mr. Lecher brilliantly envisioned the potential of the x-ray for medicine with a suggestive hint at tomography 40 years ahead of its time.

Reaction to newspaper report

The newspaper report had the effect of a bombshell as it spread like wildfire to all four corners of the globe. Röntgen received 1,000 pieces of mail during the first week alone, and his "communication" was immediately translated into several languages. Within a month's time, x-ray illustrations appeared in medical journals, and more than 1,000 radiologic papers were published in 1896. Würzburg, the birthplace of the x-ray became the Mecca for scientists, journalists, and photographers.[2]

Röntgen's reaction

Röntgen detested the excessive publicity and remarked that "they blew the trumpet out of proportion." He also disliked the sensationalizing of radiography, which he used only as a means to document his astounding fluoroscopic observations.

Although emerging as a great benefactor of suffering mankind, he considered the use of the x-ray for medicine merely a by-product. He was, however, firmly convinced that the discovery would stimulate atomic research and development of nuclear science.

Röntgen received many congratulatory messages from most distinguished scientists. He cherished their valuable letters, some of which have found a permanent haven in the German Röntgen Museum at Lennep-Remscheid.[3]

Practical application of x-ray

Physicists had experimented with Crookes tubes for many years without realizing that they had actually produced x-rays. Now they could go ahead with practical applications, and endeavors in this new field turned into a marathon race.

In the United States, radiology received a tremendous impetus when Thomas Edison immediately became involved to such an extent that he developed so-called "röntgenitis." He invented ingenious devices for fluoroscopic and radiographic equipment.

Wartime radiology

Large-scale utilization of the x-ray occurred in March, 1896, when Italian soldiers on their return from the battlefields of Ethiopia were checked for bullets and fractures at the military hospital of Naples.

On a small scale the same year, the x-ray was also tried in warfare at the Khyber Pass.[4]

Considering the beginning of radiology in 1896, one can not doubt that medicine has received a "lion's share" of the great discovery.[5]

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Obituaries

Philip Falk Aronowitz, M.D., of Baldwin, died on February 2 at the age of 59. Dr. Aronowitz received his medical degree from the University of Geneva in 1950. He was an assistant physician at Nassau County Medical Center and an internist on the medical staff at South Nassau Communities Hospital. Dr. Aronowitz was a member of the Nassau Academy of Medicine, the Nassau County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Aaron H. Barasch, M.D., of Mount Kisco and Yonkers, died on January 28 at the age of 63. Dr. Barasch graduated in 1943 from Chicago University School of Medicine. He was a Diplomate of the American Board of Psychiatry and Neurology (Psychiatry) and a member of the American Psychiatric Association, the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Erhard Boctzel, M.D., of Gardiner, died on January 25 at the age of 93. Dr. Boetzel received his medical degree from the University of Heidelberg in 1913. He was a consultant on the medical staff at Lenox Hill Hospital. Dr. Boetzel was a member of the Ulster County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Lucius H. Bugbee, Jr., M.D., of Lakewood, died on December 14 at the age of 71. Dr. Bugbee graduated in 1934 from the University of Pennsylvania Medical School. He was a gynecologist at Jamestown General Hospital and an obstetrician and gynecologist at Woman's Christian Association Hospital. Dr. Bugbee was a Diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Surgeons, and a member of the Chautauqua County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

May Edward Chinn, M.D., of New York City, died on December 1 at the age of 84. Dr. Chinn graduated in 1926 from University and Bellevue Hospital Medical College. She was a member of the American Academy of Family Physicians, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Gilbert V. Cockburn, M.D., of Brooklyn, died on August 8 at the age of 85. Dr. Cockburn graduated in 1932 from Howard University Medical College. He was a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Arnold G. DiGregorio, M.D., of The Bronx, died on December 21 at the age of 75. Dr. DiGregorio graduated in 1932 from George Washington University School of Medicine. He was a Fellow of the International College of Surgeons and a member of the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Milan J. Duray, M.D., of Saratoga Springs, died on December 24 at the age of 72. Dr. Duray graduated in 1933 from University and Bellevue Hospital Medical College. He was an honorary radiologist at Saratoga Hospital and a consulting radiologist at Benedict Memorial Hospital. Dr. Duray was a Diplomate of the American Board of Radiology.

Charles D. Enselberg, M.D., of New York City, died on January 7 at the age of 73. Dr. Enselberg graduated in 1931 from University and Bellevue Hospital Medical College. He was a physician in cardiology at Montefiore Hospital and Medical Center. Dr. Enselberg was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, and a member of the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Rocco Paul Faraldo, M.D., of Brooklyn, died on August 12 at the age of 73. Dr. Faraldo graduated in 1930 from University and Bellevue Hospital Medical College. He was a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Word has been received that **Franklin C. Farrow, M.D.,** of Buffalo, has died. Dr. Farrow graduated in 1924 from the University of Buffalo School of Medicine. He was an emeritus urologist at Deaconess and St. Francis Hospitals, and an honorary urologist at Sisters of Charity Hospital. Dr. Farrow was a Diplomate of the American Board of Urology, a Fellow of the American College of Surgeons, and a member of the American Urological Association, the Erie County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph E. Feinsot, M.D., of New Rochelle, died on November 28 at the age of 84. Dr. Feinsot graduated in 1923 from Long Island College Hospital. He was a Fellow of the American College of Surgeons and a member of the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Isidore S. Feinstein, M.D., of Hartsdale, died on November 25 at the age of 77. Dr. Feinstein graduated in 1930 from New York Homeopathic Medical College and Flower Hospital. He was a clinical assistant, off service, in medicine at The Bronx-Lebanon Hospital Center. Dr. Feinstein was a member of the American Academy of Family Physicians, the American Geriatrics Society, the New York Cardiological Society, the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Hyman Friedman, M.D., of Tamarac, Florida, formerly of Brooklyn, died on October 25 at the age of 74. Dr. Friedman graduated in 1935 from New York Homeopathic Medical College and Flower Hospital.

Theodore Gerstenblith, M.D., of Brooklyn, died on August 26 at the age of 68. Dr. Gerstenblith graduated in 1937 from Long Island College of Medicine. He was an attending physician in cardiology at Coney Island Hospital. Dr. Gerstenblith was a Fellow of the American College of Angiology and a member of the American Geriatrics Society, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Morris Goldberg, M.D., of New York City, died on March 11, 1980, at the age of 85. Dr. Goldberg graduated in 1920 from Long Island College Hospital. He was an assistant, emeritus, pediatrician at Maimonides Medical Center. Dr. Goldberg was a Diplomate of the American Board of Pediatrics and a member of the American Academy of Pediatrics, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Kenneth Oscar Hamlin, M.D., of De Ruyter, died on November 6 in his 77th year. Dr. Hamlin graduated in 1932 from the University of Rochester School of Medicine. He was an otolaryngologist at Cortland Memorial Hospital. Dr. Hamlin was a member of the Cortland County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Albert Leonard Hayes, M.D., of Columbus, Ohio, formerly of Willsboro, died on December 25 at the age of 86. Dr. Hayes graduated in 1920 from Albany Medical College. He was a member of the Essex County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph Henry Heim, M.D., of Albany, died on February 13 at the age of 73. Dr. Heim graduated in 1934 from Loyola University Medical School, Chicago. He was a member of the Albany County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Robert Wright Hillman, M.D., of Garden City and Brooklyn, died on January 17 at the age of 66. Dr. Hillman graduated in 1938 from Long Island College of Medicine. He was a consultant in internal medicine at Brooklyn-Cumberland Medical Center. Dr. Hillman was a Diplomate of the American Board of Internal Medicine, a Diplomate of the American Board of Preventive Medicine (General Preventive Medicine), a Fellow of the American College of Physicians, and a member of the American Public Health Association, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Aron Noe Horn, M.D., of Staten Island, died on February 4 at the age of 68. Dr. Horn received his medical degree from the University of Vienna in 1936. He was an associate in medicine at Richmond Memorial Hospital. Dr. Horn was a member of the Richmond County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Hilda Malie Iserlis, M.D., of The Bronx, died on January 13 at the age of 88. Dr. Iserlis received her medical degree from the University of Vienna in 1923. She was a member of the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph C. Klauber, M.D., of Staten Island, died on January 19 at the age of 89. Dr. Klauber graduated in 1918 from New York Homeopathic Medical College and Flower Hospital. He was an honorary surgeon at Richmond Memorial Hospital. Dr. Klauber was a member of the Richmond County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Isidor Kross, M.D., of New York City, died on December 26 at the age of 92. Dr. Kross graduated in 1910 from University and Bellevue Hospital Medical College. He was a Diplomate of the American Board of Surgery, a Fellow of the American College of Surgeons, and a member of the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Jane Lester, M.D., of White Plains, died on December 14 at the age of 65. Dr. Lester graduated in 1940 from Columbia University College of Physicians and Surgeons. She was director of pathology at White Plains Hospital as well as director of the blood bank there. Dr. Lester was a Diplomate of the American Board of Pathology (Pathologic Anatomy and Clinical Pathology), a Fellow of the College of American Pathologists, and a member of the American Society of Clinical Pathologists, the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Leon M. Levitt, M.D., of Brooklyn, died on January 24 at the age of 65. Dr. Levitt graduated in 1941 from Long Island College of Medicine. He was a visiting physician at Kings County Hospital Center and an attending physician in endocrinology and metabolism at Long Island College Hospital. Dr. Levitt was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, and a member of the American Adademy of Compensation Medicine, Inc., the Clinical Society, New York Diabetes Association, the New York State Society of Internal Medicine, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Luis Rott Perelman, M.D., of New York City, died on December 10 at the age of 75. Dr. Perelman received his medical degree from the University of Chile in 1928. He was a consulting psychiatrist at St. Luke's Hospital Center. Dr. Perelman was a Diplomate of the American Board of Psychiatry and Neurology (Psychiatry) and a member of the American Psychiatric Association, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Michael Petras, M.D., of New York City, died on October 24 at the age of 68. Dr. Petras received his medical degree from the University of Bologna in 1941. He was a member of the American Society of Anesthesiologists, Inc., the New York State Society of Anesthesiologists, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Leo Rosen, M.D., of Gloversville, died on December 31 at the age of 80. Dr. Rosen graduated in 1925 from University and Bellevue Hospital Medical College. He was a member of the Fulton County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Sam Rosen, M.D., of The Bronx and New York City, died on December 20 at the age of 73. Dr. Rosen graduated in 1933 from St. Louis University School of Medicine. He was an assistant gynecologist at St. Joseph's Hospital. Dr. Rosen was a member of the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Esterino Elia Santemma, M.D., of Hempstead, died on January 18 in his 76th year. Dr. Santemma graduated in 1929 from George Washington University School of Medicine. He was an emeritus in medicine at Nassau County Medical Center, an associate internist at Mercy Hospital (Rockville Centre), and an internist on the medical staff at Hempstead General Hospital. Dr. Santemma was a Fellow of the American College of Cardiology and a member of the New York State Society of Internal Medicine, the Nassau County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Morris A. Schoenwald, M.D., of Syracuse, died on January 25 at the age of 84. Dr. Schoenwald graduated in 1922 from Syracuse University College of Medicine. He was a senior obstetrician and gynecologist at St. Joseph's Hospital Health Center. Dr. Schoenwald was a Fellow of the American College of Obstetricians and Gynecologists and a member of the Syracuse Academy of Medicine, the Onondaga County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Otto Severin, M.D., of Rego Park and Elmhurst, died on January 19 at the age of 67. Dr. Severin received his medical degree from the University of Bucharest in 1938. He was a general practitioner on the medical staff at Parkway Hospital. Dr. Severin was a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Pincus Sherman, M.D., of The Bronx and New Rochelle, died on January 27 at the age of 68. Dr. Sherman graduated in 1936 from the University of Buffalo School of Medicine. He was an associate plastic surgeon at Misericordia Hospital Medical Center, a head and neck surgeon at the Hospital of the Albert Einstein College of Medicine, and a plastic surgeon at Pelham Bay and Yonkers General Hospitals. Dr. Sherman was a Fellow of the International College of Surgeons and a member of the American Society of Maxillofacial Surgeons, the American Academy of Facial Plastic and Reconstruction Surgery, the New York Academy of Medicine, the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Arthur P. Skwerer, M.D., of Brooklyn, died on January 5 at the age of 64. Dr. Skwerer graduated in 1941 from the University of Louisville School of Medicine. He was a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Saul Solomon, M.D., of New York City, died on January 20 at the age of 75. Dr. Solomon graduated in 1930 from McGill University Faculty of Medicine. He was an attending physician at Bellevue and Doctors Hospitals, and an associate in medicine at University Hospital. Dr. Solomon was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, a Fellow of the American College of Chest Physicians, a Fellow of the American College of Cardiology, and a member of the American Rheumatism Association, the American Thoracic Society, the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Nobe Ely Stein, M.D., of New York City, died on December 18 at the age of 88. Dr. Stein received his medical degree from the University of Berlin in 1921. He was a Diplomate of the American Board of Psychiatry and Neurology (Psychiatry) and a member of the American Psychiatric Association, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph Tauber, M.D., of New York City, died on February 7, 1980, at the age of 75. Dr. Tauber received his medical degree from the University of Vienna in 1934. He was a Diplomate of the American Board of Radiology (Diagnostic Radiology) and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Irving Terman, M.D., of New York City, died on January 23 at the age of 71. Dr. Terman graduated in 1934 from the University of Maryland School of Medicine and College of Physicians and Surgeons. He was an obstetrician and gynecologist at Jewish Memorial Hospital. Dr. Terman was a Diplomate of the American Board of Obstetrics and Gynecology and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Louis Phillip Tomassetti, M.D., of Rochester, died on December 16 at the age of 60. Dr. Tomassetti received his medical degree from the University of Geneva in 1955. He was a general practitioner at Park Avenue Hospital and a family practitioner at Rochester General Hospital. Dr. Tomassetti was a member of the American Occupational Medicine Association, the American Academy of Family Physicians, the Rochester Academy of Medicine, the Monroe County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Beverly L. Vosburgh, M.D., of Cleverdale, died on December 14 at the age of 83. Dr. Vosburgh graduated in 1922 from Albany Medical College. He was a Diplomate of the American Board of Preventive Medicine (Occupational Medicine), a Fellow of the American College of Preventive Medicine, and a member of the American Occupational Medicine Association, the American Academy of Occupational Medicine, the Schenectady County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Seyed Ahmad Zokaie, M.D., of Monticello, died on October 13 at the age of 43. Dr. Zokaie received his medical degree from the University of Teheran in 1964. He was a Diplomate of the American Board of Surgery and a member of the Sullivan County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Eighth joint New York/ Tokyo medical congress

The eighth joint New York/Tokyo Medical Congress will be held June 19, 20, 21 at the Sheraton Centre, Seventh Avenue and 52nd Street, New York City.

The scientific program will be held on Saturday, June 20, 8 a.m. to 5 p.m. This program is accredited for 6 CME hours, Category I, PRA of the AMA, and approved for 6 prescribed hours by the AAFP.

Advanced registration is required by May 29. Registration is limited to 250 physicians.

For pre-registration, further details, copy of program, and information about the dinner in honor of the Japanese delegation on Saturday, June 20, at 6:30 p.m., please write to the New York County Medical Society, 40 West 57th Street, New York, New York 10019, or call the Society offices at (212) 582-5858.

ANNOUNCEMENT

AWARDS AND PRIZE ESSAYS

The **Albion O. Bernstein, M.D. Award** for the most widely beneficial scientific discovery in medicine, surgery, or the prevention of disease made during the year. This will be awarded to the physician, surgeon, or scientist who made the discovery. A scroll and $2,000 will be awarded annually. This award was established in 1962.

The **Lucien Howe Prize and Merrit H. Cash Prize** are now also open for competition.

The **Lucien Howe Prize** will be presented for the best original contribution in some branch of surgery, preferably ophthalmology. The author need not be a member of the Medical Society of the State of New York.

The **Merrit H. Cash Prize** will be given to the author for the best original essay on some medical or surgical subject. Competition is limited to the members of the Medical Society of the State of New York who at the time of the competition are residents of New York State.

The following conditions must be observed:

Essays shall be typewritten with the name of the prize for which the essay is submitted, and the only means of identification of the author shall be a motto or other device. The essay shall be accompanied by a sealed envelope having on the outside the same motto or device and containing the name and address of the writer.

All essays must be presented not later than *May 1, 1981*, and sent to the Chairman of the Committee on Prize Essays of the Medical Society of the State of New York, 420 Lakeville Road, Lake Success, New York 11042.

Any essay that may win a prize automatically becomes the property of the Medical Society of the State of New York, "to be published as it may direct."

Month in Washington

Some $4 billion of the Reagan Administration's proposed $41 billion budget cuts will be sliced from health programs under the domain of the HHS (Department of Health and Human Services). And additional cuts in all sectors will be listed in the President's full revision of the budget for the fiscal year beginning this October — fiscal year 1982.

The cuts for health from previously projected spending levels featured $2.7 billion in savings through consolidation of HHS categorical grant programs and a 25 percent rollback in the total federal contribution. A cap on federal payments for the Medicaid program would trim the U.S. budget by $1.2 billion.

Other proposed HHS cuts included: health planning, $100 million; PSROs (Professional Standards Review Organizations), $15 million; NIH (National Institutes of Health), $197 million; Health Professions Education, $280 million; HMOs (Health Maintenance Organizations), $24 million; Public Health Service hospitals, $110 million; NHSC (National Health Service Corps) scholarships, $31 million.

All told, HHS budget authority would be reduced by $5.2 billion and outlays by $6.9 billion in fiscal 1982. More than $1 billion of this represents slashes in welfare spending. For the current fiscal year that ends in October, these health programs would be trimmed by $828 million.

The Administration's block grant proposal covers a wide span of health activities, including such programs as community health centers, migrant clinics, emergency medical services, alcohol and drug abuse services, health incentive grants, venereal disease, immunizations, and so forth. About 40 categorical grants for health and social services currently budgeted for $9.4 billion next fiscal year are involved.

Explaining the plan to consolidate these programs, the Administration said "day to day management has developed into a bureaucratic morass of planning, regulating, and reporting at the federal, state, and local levels."

A block grant approach would give the states greater flexibility and responsibility. "States could select the service delivery agency best able to provide certain services that are now provided by direct federal grantees, the budget document said. "The overall result would strengthen state governments and provide publicly-financed services more effectively and at lower costs to those in need."

Legislation to carry out the plan will be sent to Congress with an effective date as of October 1. The proposed funding level for fiscal 1982 is 75 percent of the previously-budgeted estimate, or $6.8 billion, a cut of $2.7 billion. Because of "significant savings in program overhead and more efficient service delivery due to the elimination of over-lapping service responsibilities, this funding change need not result in a reduction of services," the Administration said.

Hinting at a future broad health plan proposal, presumably along the lines of "pro-competition" health bills, the economic report said government regulatory efforts to date "have failed to stem the increase in costs because they fail to affect the underlying cost-increasing bias in the health care system that results from the insulation of all parties in medical care markets from the cost consequences of their decisions. The Administration will propose comprehensive legislation to remedy these market distortions."

As an interim measure, the Administration said it will propose legislation to "establish a limit on the Medicaid program's unconstrained growth."

"High federal matching, excessive benefit provisions, and overly-generous eligibility have made the Medicaid program a very poorly managed social program that fails to provide cost-effective services to those most in need," the Administration said. Eligibility errors alone are estimated to cost about $1.2 billion a year.

The federal payment limit would be structured to cut federal expenditures $100 million below the current base estimate and would be allowed to increase only five percent in fiscal 1982, rising thereafter with the overall rate of inflation. Federal spending would be reduced by $1.2 billion next year, rising to $5 billion in 1986. The Administration said it believes "this degree of restraint can be achieved by states without reducing basic services for the most needy . . . No state, however, would be prevented from providing whatever additional services it deemed appropriate out of its own resources."

The economic report said the Administration "will propose to end large general subsidies for the training of physicians and other health professionals. Such programs are no longer necessary in light of the growing projected supply of most health professionals. Instead, federal programs will be directly targeted on training needs of national priority."

The Administration is asking only $120 million for health professions education next year, compared with the $400 million projected under current spending levels and the current year's budget of $368 million.

The federal grant and loan subsidy program for HMOs (Health Maintenance Organizations) would be eradicated by the Administration. "After eight years of federal support, the feasibility of HMO prepaid health care delivery has been adequately demonstrated."

Legislation will be proposed to strike present "unnecessarily restrictive requirements" for federal qualifications of HMOs, making private capital available for HMO development and "obviating the need for further subsidies." No new grants or loans will be made, but HMOs now receiving support will be allowed to complete their grant period. The program would be completely phased out by 1983.

As reported earlier, the Administration will not seek new scholarships for the NHSC (National Health Service Corps) program that sends medical teams to physician-shortage areas. At most, 6,000 NHSC people are needed now to cover health manpower shortage areas, the Ad-

continued on page 818

Prepared by the Washington, D.C., office of the American Medical Association.

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Continued

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Annotations of Books Received*

DIAGNOSIS

Islers's Pocket Dictionary of Diagnostic Tests, Procedures and Terms. By Charlotte Isler, R.N. Oradell, N.J., Medical Economics Company. Book Division, 1981. Paperback, 151 pages. Price, $7.95.

For the allied health worker who needs to understand and interpret medical tests and procedures.

MENTAL DISORDERS

Emotional Disorders: An Outline Guide to Diagnosis and Pharmacological Treatment. Third edition. By Albert DiMascio, Ph.D., and Harold L. Goldberg, M.D. Oradell, N.J., Medical Economics Company. Book Division, 1981. Hardcover, 146 pages. Price, $13.95.

How to recognize, understand, and deal with the most common psychiatric problems and their pharmacologic treatment—for the allied health professional.

BIOPHARMACEUTICS

The Future of Pharmaceuticals: The Changing Environment for New Drugs. By Clement Bezold, Ph.D. Foreword by Alvin Toffler. New York, John Wiley & Sons, 1981. Cloth, 142 pages. Price, $.

A broad view of the forces affecting the discovery and development of new pharmaceutical products.

MICROCIRCULATION

Microcirculation. Volume 3. Edited by Gabor Kaley, Ph.D., and Burton M. Altura, Ph.D. Baltimore, Md., University Park Press, 1980. Illustrated, 531 pages. Hardcover, $64.50.

The third volume of a comprehensive study on background information, research findings, and recent advances in the field.

HEALTH POLICY

The Regulation of Medical Care: Is the Price Too High? By John C. Goodman. (Cato Public Policy Research Monograph No. 3) San Francisco, Calif., CATO Institute, 1980. Paperback, 135 pages. Price, $5.00.

An advocacy for the free play of economic forces in the health care market place.

AGING

The Doctor's Guide to Growing Older. By Sandor A. Friedman, M.D., and Francis U. Steinheber, M.D. New York, New American Library, 1980. Illustrated, 336 pages. Paperback, $5.95.

A handbook to better health in the later years of life.

WOUNDS, GUNSHOT

Kennedy and Lincoln: Medical and Ballistic Comparisons of Their Assassinations. By John K. Lattimer, M.D., Sc.D., F.A.C.S. New York, Harcourt, Brace Jovanovich, 1980. Illustrated, 378 pages. Hardcover, $19.95.

Similarities and associations between the two assassinations.

SEX

The Family Book About Sexuality. By Mary S. Calderone, M.D., and Eric W. Johnson. New York, Harper & Row, Publishers, 1981. Illustrated, 330 pages. Hardcover, $14.95.

For quick information on specific questions, arranged alphabetically.

PRIMARY HEALTH CARE

Assessment of the Child in Primary Health Care. By John H. Gundy. New York, McGraw-Hill Book Company, 1981. Illustrated, 193 pages. Paperback, $.

A textbook for assessing children in the primary health care setting—for the medical and allied health student.

ANESTHESIOLOGY

Anesthetic Considerations for Pediatric Cardiac Surgery. Edited by Paul A. Radnay, M.D., and Hideo Nagashima, M.D. Boston, Little, Brown and Company, 1980. Illustrated, 240 pages. Hardcover, $.

Volume 18, Number 1, in the International Anesthesiology Clinics series.

PHYSICIANS, FAMILY

Profile of the Residency Trained Family Physician in the United States, 1970–1979. Edited by John P. Gey-man, M.D. New York, Appleton-Century-Crofts, 1981. Paperback, 68 pages. Price, $12.

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*Books received for review are acknowledged promptly in this column. No other obligation is assumed for the courtesy of those sending them for this purpose. Selection for review is made on the basis of merit and reader interest.

A survey on the practice patterns, perceptions, and geographic distribution of residency trained family physicians in the U.S.

EYE—DIAGNOSIS

Manual for Eye Examination and Diagnosis. Second edition. By Mark W. Leitman, M.D., Samuel Gartner, M.D., and Paul Henkind, M.D., Ph.D. Oradell, N.J., Medical Economics Company, Book Division, 1981. Illustrated, 74 pages. Paperback, $8.95.

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patients in State mental hospitals?

Answer: "... the governmental license authorized limited practice in the institutional settings which are less appealing to U.S. medical graduates; in the last few years some of these institutions have come to depend heavily for their supply of physician manpower upon the growing population of foreign medical graduates."[1]

Bluestone: "Over one half of the psychiatrists employed are Board certified. This compares well with the national average."

Many: (1) Close to one half of the psychiatrists employed in New York State are *not even* Board Eligible (precise data not available from N.Y.S. Office of Mental Health). Board eligibility is a measure of the completion of an accredited psychiatric residency program. It is the crucial index of postmedical-graduate psychiatric training.

(2) A relationship between Board certification and competency in either general or forensic psychiatry has yet to be demonstrated.†

(3) National standards for the competent practice of forensic psychiatry have not been established. My experience in California, a state with the strongest pro forma patients' rights protections, suggests an erosion similar to but worse than that in New York.[3]

I have identified psychiatrist "downward drift" as one of the factors instrumental in an erosion of patient civil rights. Yet downward *clinical* drift may coexist with upward *administrative* drift. Getting of the front (clinical) lines is rewarded in most states by higher pay, off-ward offices, secretarial support, and so forth. Administrative expedience appears to preempt patient rights in such circumstances.

I have suggested the fortification of psychiatric forensic training and the elevation of standards for state hospital psychiatrists. In their quasi judicial role, psychiatrists must have more than just a passing familiarity with standards of due process and constitutional safeguards against the abuse of authority. Competency based training and the elimination of limited licensure might be just such a first step. Beyond that, history suggests that patients at risk for the psychiatric abuse of authority need objective safeguards, such as those indicated in my report.

In all, Dr. Bluestone's comments help to underline my observations. His elaborated concerns are those of the representative of a professional interest group with a strong, state, bureaucratic affiliation.[4] He prefers to ignore the core issue, which is the disparity between a constitutional standard of law and the de facto psychiatric deprivation of patient civil rights. Hopefully, psychiatrists in N.Y. State employ are neither less competent nor more disturbed than those in other states or even in private practice. Yet arbitrary role requirements and professional drift patterns leading to State employment may play a special part in psychiatrist insensitivity and hostility to issues of social justice. Erosion of civil rights should not be concealed by appeals to psychiatric patriotism. We need to see what is actually happening in our State mental hospitals. Then we need to change it.

SETH E. MANY, M.D.
Union Street
Sharon Springs, N.Y. 13459

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2. Crawshaw, R., et al.: An epidemic of suicide among physicians on probation, J.A.M.A. 243(19): 1915 (May 16) 1980.
3. Many, S.: Corpora insana at metrocal, submitted for publication, (Feb.) 1981.
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Unoperated bilateral subdural hematoma*

To the Editor: The article "Unoperated Bilateral Subdural Hematoma" subtitled "Followed by sequential coronal computed tomography scans," requires rebuttal. Without actually saying it, the authors implied, even in their title, that there is a nonsurgical method of treatment for subdural hematomas. The publication of an article of this sort may lead physicians into the false belief that this is an accepted way to treat a subdural hematoma. This campaign has been carried out by Dr. Bender for more than 20 years. Few have accepted it for the simple reason that it is by far the more dangerous course.

As described in the article, the patient became drowsy and confused. Lethargic patients have a greater chance of aspirating into the lungs, getting bed sores, urinary tract infection, pulmonary emboli, and so many other complications that they should not all be listed here, but known to medical practitioners. Such patients are hospitalized much longer, and have more tests. In the article by Lusins, Nakagawa, and Bender, the patient had extra studies. Even a year later he had a CT scan. He was also subjected to the risks of angiography, and had an isotope brain scan.

Burr holes and drainage of his subdural hematoma could have been done under local anesthesia, and the patient out of the hospital in a week to 10 days or less. Why should one take the hard, long, indirect, and more dangerous path for treatment? If the patient had become worse, they would have surely referred him for an emergency neurosurgical procedure. Emergency operations have significantly higher risks than elective ones. I hope you will see fit to publish this letter in the column "Letters to the Editor," in the New York State Journal of Medicine.

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Dr. Bender's reply

To the Editor: Your letter of December 8, 1980, to Dr. John Lusins was forwarded to me for reply.

In response to the criticism of Dr. David Cooper, may I say that we have been treating subdural hematomas by the nonsurgical method for over 20 years and with great success. To date we have personally collected 146 cases of large unilateral, bilateral, and in two patients multiple subdural hematomas. The incidence of transfer for neurosurgical treatment, as in the past, was about 20 percent.

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† Upward mobility may increase mental instability as measured by suicide among some physicians.[2]

* Lusins, J., Nakagawa, H., and Bender, M. B.: Unoperated bilateral subdural hematoma; followed by sequential coronal computed tomography scans, New York State J. Med. 80: 1869 (Nov.) 1980.

Currently, there are many physicians who have been treating this condition successfully with steroid medication and some on an ambulatory basis. We have had none of the medical complications mentioned in Dr. Cooper's communication and, in fact, less than those treated with surgery. Financially the medical method of treatment is less costly than the surgical.

During our investigative period angiography and isotope brain scans were performed to confirm the diagnosis. In recent years we employ computerized tomography to establish the diagnosis and follow the clinical course as described in the article published in the New York State Journal of Medicine. If the patient continues to improve, no special tests are performed.

We believe that this is an accepted form of treatment, and it is not more dangerous than surgical intervention. This view was expressed by several neurosurgeons in different regions of the world, including that of Dr. T. P. Morley, editor of *Current Controversies in Neurosurgery*, Philadelphia, W. B. Saunders, 1976, p. 560, which I quote as follows: "It seems that there will always be controversy between medical and surgical therapy, whether it be for peptic ulcer, thrombophlebitis, or discogenic conditions. We feel that both methods of treatment should be considered acceptable in cases of subdural hematoma."

MORRIS B. BENDER, M.D.
Henry P. & Georgette Goldschmidt
Professor and Chairman Emeritus
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New York, N.Y. 10029

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Recent Advances and Management

◆

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ministration said. A freeze on new scholarships still will allow the corps to swell to 9,000 members by 1990.

Students who currently have NHSC scholarships will be allowed to complete their training.

Earmarked for oblivion by the Administration is the PSRO (Professional Standards Review Organization) program "consistent with a two-year Administration timetable to develop and carry out health financing reforms that encourage competition in the health sector."

"Contracts will be renewed with only those PSROs judged most effective in controlling health care costs," and some transitional funding will be allowed through 1983 to allow competing systems of health care to contract for the services of effective PSROs.

The Administration said recent studies of the program show that PSROs raise national health care spending, rather than reduce it.

The PSRO program would be pared to an appropriation of $70 million next year, from the current $174 million, to $67 million the following year, and to zero by fiscal 1984.

The controversial health planning program, as expected, was ticketed for destruction. Planning "has not proved effective in controlling costs on a national basis, and it inhibits market forces needed to strengthen competition and provide less costly services." The certificate-of-need requirement under planning calls for a "government franchise" and inhibits free market entry, "often propping up high-cost institutions behind a government-created entry barrier."

Health planning would be phased-out over two years, receiving $58 million next year and no money by fiscal 1984. Outlays in the current year are expected to reach $162 million.

The budget squeeze that would keep increased funding below the projected rate of inflation would hit the National Institutes of Health where the Administration will seek $3.7 billion next fiscal year, compared with the $3.6 billion this year. The eight Public Health Service hospitals and 29 clinics would be closed down over the next four years at an estimated savings of more than $900 million over the period. The Administration said the system "is underused and actually aggravates health care costs in cities where the hospitals are located." All of the hospitals are located in areas with an excess supply of hospital beds, the report said.

No reduction is planned for the $45.4 billion Medicare program. Other programs escaping the economy drive are the basic retirement program of Social Security; the Veterans Administration compensation programs for service disabilities and nonservice-connected disability pensioners; the school lunch and breakfast programs; and Head Start program for pre-schoolers; the supplemental security income fund for the blind, elderly, and disabled; and the summer youth jobs program.

* * *

Rumbles of protest quickly built up against President Reagan's proposed health spending cuts.

The nation's governors, meeting in Washington, D.C., rejected as "not acceptable" the plan to limit federal payment to states for Medicaid costs. Utah Governor Scott Matheson presented the White House with the governors' position that "a uniform, nationwide 5 percent cap on federal financial participation is not acceptable."

Under the plan, the states would have to come up with an additional $1 billion next fiscal year to keep Medicaid services operating at their present rate in order to make up for the federal shortfall.

HHS Secretary Richard Schweiker told the governors at their annual meeting that the federal cap is needed because Medicaid "has unfortunately been out of control."

The HHS Chief noted that the "cap" is designed as an interim measure until far-reaching changes can be made in the medical system designed to induce greater competition. "The only way to cut the budget is to cut the budget," he said, indicating that the Administration's position is firm on the issue.

The govenors adopted a resolution that they will "vigorously oppose" attempts to shift the costs of the federal budget cuts to the states. They insisted state governments must have time to adjust to the cuts and have increased flexibility in administering federal programs.

Moving against the Administration current, the governors said the federal government should take over all welfare and Medicaid costs.

Only three of the 49 governors attending the conference opposed the resolution.

The Administration's economic report with its list of cuts and eliminations in health and other programs was made public when the AHPA (American Health Planning Association) was holding its annual meeting here. The news that planning was scheduled for elimination jolted the participants.

Said Harry Cain, AHPA Executive Director: "The proposal to phase out quickly the health planning program is likely to cost the government—and all the consumers, providers, and other payers of health care—a great deal more than the $100 million it purports to save."

* * *

A very strong case exists for cessation of the federal health planning program, the American Medical Association has told the Congress.

Planning has become "a network of quasi-regulatory agencies more responsive to federal directives and concerns than to the health and medical needs of the communities purportedly served," the AMA told the Senate Appropriations Subcommittee on Health.

In a letter to subcommittee Chairman Harrison Schmitt (R., N.M.), James Sammons, M.D., AMA Executive Vice President, said the health planning program "has clearly done more to interfere with health care competition than to foster it." The certificate-of-need requirements "establish barriers to entry in a market for competitors and, therefore, inhibit the market from operating efficiently to allocate resources," said Dr. Sammons.

The program has had little effect in containing costs, he said. The AMA House of Delegates recently reaffirmed AMA policy calling for repeal of the Health Planning Act.

Dr. Sammons noted that the AMA is developing principles for voluntary health planning which can serve as a foundation for establishing priorities and purposes for local planning agencies.

* * *

President Reagan has nominated Edward Brandt, Jr., M.D., Vice-Chancellor for health affairs since 1977 for the University of Texas, Austin, to be HHS Assistant Secretary for Health.

Brandt, whose nomination is subject to Senate confirmation, was supported for the HHS post by the American Medical Association, for which he currently chairs its section on medical schools. Brandt would succeed Julius Richmond, M.D., who also held the post of Public Health Service (PHS) Surgeon General.

Also reported by the White House is the appointment of C. Everett Koop, M.D., Surgeon-in-Chief of Children's Hospital of Philadelphia, as HHS Deputy Assistant Secretary for Health.

An additional appointment reported by the White House is the selection of Carolyne Davis, R.N., Ph.D., to head HHS' Health Care Financing Administration. Associate Vice-President for Academic Affairs at the University of Michigan, Ann Arbor, since 1975, Davis earlier served as Dean of the University's School of Nursing from 1973 to 1975.

Accompanying the White House announcement of Dr. Brandt's appointment was the statement "—it is the President's intention to see that this position is elevated to Under Secretary in accordance with a reorganization plan that will be announced later." This has led to speculation that if Dr. Brandt moves up to Under Secretary, Dr. Koop would become Assistant Secretary and, possibly, named as Surgeon General of the Public Health Service.

* * *

The Administration is considering submission of a catastrophic health benefit plan to Congress later this year.

The surprise disclosure came from HHS Secretary Richard Schweiker as he opened defense of the Administration's health and welfare spending cuts in testimony before the House Ways and Means Committee.

Asked whether there was any possibility of the Administration suggesting extra benefits anywhere in light of the down-the-line cuts projected for health, Schweiker told the commitee "we're looking frankly at a catastrophic health program." He said he didn't "have a feel" yet of what the final decision will be, but suggested that some money "set-aside" for catastrophic may be factored into the Administration's detailed budget.

Schweiker did not say whether a catastrophic plan would be part of the "pro-competition" health legislation the Administration has said it will propose. In his congressional appearance, Schweiker said "I hope later this year we will present a health care delivery model to Congress."

The Administration is supporting a "consumer choice" or "pro-competition" approach under which changes in the federal tax treatment of private health insurance would be designed to spur purchase of cheaper coverage with high deductibles. Competition among insurors and HMOs theoretically would drive down the cost of medical care.

4TH ANNUAL SYMPOSIUM

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The program meets the criteria for 28.5 credit hours in Category 1 of the Physicians Recognition Award of the AMA. The guest faculty includes: P. O. Alderson, J. S. Borer, G. W. Hamilton, R. H. Jones, W. O'Neill, R. W. Parkey, H. W. Strauss, J. H. Thrall, and H. N. Wagner, Jr. Reservation deadline is May 15, 1981. For further information contact Jagmeet S. Soin, M.D., F.A.C.C., Program Director, Division of Nuclear Medicine, The Medical College of Wisconsin, 8700 W. Wisconsin Avenue, Milwaukee, WI 53226, or call (414) 257-5968.

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BACTERIA, DIET AND THE PREVENTION OF DENTAL CARIES—PART I

Charles F. Schachtele, Ph.D.
Professor, School of Dentistry
and Department of Microbiology
University of Minnesota
Minneapolis, Minnesota 55455

Hardly a month goes by where the news media does not present some release on the prevention of human tooth decay (dental caries) Why the increase in publicity related to this disease? A response to this question requires an appreciation for the extent and consequences of this public health problem and an understanding of the status of research on this disease Virtually all Americans have decayed teeth by the time they become adults The average 15-year-old has ten decayed, filled or missing teeth and approximately six billion dollars per year are spent in this country to repair the damage caused by this disease.[1] In addition, caries can cause appreciable pain and loss of time

Dental caries has been neatly defined[2] as "localized, progressive decay of the teeth, initiated by demineralization of the outer surface of the tooth due to organic acids produced locally by bacteria that ferment deposits of dietary carbohydrates " During the past decade, dental researchers have been able to uncover many of the microbiological and biochemical details important for caries development. In the first part of this article, we will discuss dental caries as an infectious disease and summarize some of the exciting progress which has been made in determining how unique oral bacteria interact with components in the diet to enhance caries formation. In part II of this article, we will discuss how this new information is being used to develop caries control measures which have great potential for disease prevention.[2]

Oral Bacteria and Diet

Greater than 60 different types of bacteria reside in the human oral cavity. Each type has characteristics which allow it to survive in the mouth and to elude both the flushing and antibacterial influences of saliva. Saliva contains approximately 100 million viable bacterial cells per milliliter, and the surfaces of teeth accumulate bacterial mats or masses (dental plaque) with a density of approximately 200 billion cells per gram of wet material. It is important that we consider these bacteria as our friends and realize that the symbiotic relationship we have with them may be critical to our health. Members of our oral flora have the potential to contribute to our nutrition, to induce the production of protective antibodies, and to influence the development of various organs and tissues.[3] We are just beginning to appreciate the developmental and immunological consequences of the several grams of oral bacteria we swallow each day

Unfortunately, specific types of bacteria can rapidly become dominant at certain sites in the mouth and turn from friend to foe In the case of dental caries, this transition appears to be primarily related to diet.

If we compare the mouth to other microbial niches in nature, it is clear that the oral cavity is a nutritionally rich environment. Indeed, the host can contribute so effectively that a complex bacterial flora exists and plaque accumulates on the teeth of human subjects who receive all of their food by stomach tube.[4] Plaque formed in this way has a diminished capacity to produce acid and, therefore, caries when supplied with fermentable carbohydrate. At this time the whole story on the effect of various diets on the oral flora is not available, but it is known that alterations in the ingested levels of carbohydrates can dramatically influence the concentration of certain bacteria. These findings emphasize the contribution of the diet to the microbial ecology of the oral cavity and indicate that the diet may significantly influence the bacteria which reside on the teeth. Specifically, *Streptococcus mutans* levels in plaque can be markedly elevated by increasing the quantity of carbohydrate in the diet. It is essential to realize that the importance of this response can only be evaluated in light of what we have recently learned about the cariogenic potential of *S. mutans*.

Streptococcus mutans

Current excitement in caries research stems from our growing knowledge of *S. mutans*.[5] This unique microorganism has characteristics which indicate that it is responsible for a major portion of the carious lesions which develop in humans. Arguments for treating caries as an infectious disease caused by a specific pathogen have been clearly presented.[6] Since the degree of infection by *S. mutans* and the extent of the disease is related to the level of fermentable carbohydrate in the diet, it is important to understand what is known about the interaction of these two factors. Initially, we must evaluate what is known about the ecology of *S. mutans* and how this can be related to disease development

The only natural habitat of *S. mutans* is the mouth of humans and some animals. Specifically, this bacterium is primarily found as a part of plaque on the surfaces of teeth. The bacterium does not colonize the mouth of children prior to tooth eruption and disappears from the oral cavity after complete loss of the teeth. Reservoirs of *S. mutans* in parents appear to be the source of infection for infants whose erupting teeth are being colonized for the first time. The complexity of the caries process is reflected by the findings that the interoral spreading of *S. mutans* can be influenced by the frequency of exposure to the bacterium, the dose received, the nature and levels of antibacterial substances in saliva, the saliva flow rate, the nature of the other bacteria at the sites of initial contact, and other factors related to the specific adherence mechanisms of *S. mutans*.

It is important to note that *S. mutans* colonizes teeth in a very localized pattern and that the sites which harbor high concentrations of *S. mutans* are those sites which most rapidly become diseased. Recent studies have strongly implicated *S. mutans* in lesions which develop in the pits and fissures of the teeth[7] and on the smooth surfaces.[8] Another critical point is that when *S. mutans* is localized on the tooth surface, its ability to spread to adjacent sites is limited.[9] Fortunately, there are strong inhibitors, such as factors in saliva, which prevent *S. mutans* from spreading in a manner analogous to more rapidly disseminating bacterial infections.

Caries development is dependent on

the presence of dental plaque During the formation of plaque, *S mutans* and the disaccharide sucrose have a unique relationship Sucrose is made up of the monosaccharides glucose and fructose, and *S mutans* utilizes the energy in the bond between these sugars to synthesize polymers of glucose (glucans) on the tooth surface The production of these glucans is considered to be the critical reaction for the oral accumulation and cariogenicity of *S mutans* The enzyme responsible for glucan formation is a glucosyltransferase Research has shown that mutants of *S mutans* which produce elevated or reduced levels of this enzyme initiate correspondingly higher or lower levels of caries when tested in an animal model system with sucrose[10] Consequently, this enzyme has been proposed by many researchers as the prime candidate antigen for an anticaries vaccine Crude enzyme preparations have been shown to be effective immunogens when tested in animal models[11]

Part of the glucan produced by *S mutans* contains chemical bonds which decrease the solubility of the polysaccharide This adds unique physical characteristics to colonies of *S mutans* within plaque Localized, glucan-coated colonies of *S mutans* adjacent to the enamel surface might limit access to helpful buffering entities in saliva and block diffusion of harmful acid away from the teeth Finally, the aggregated and compact colonies of *S. mutans* might be less susceptible than plaque, in general, to disruption and removal This could be a great problem in retentive areas which have limited accessibility This could be a major factor in the efficiency of certain oral hygiene procedures and emphasizes the need for proper and thorough periodic cleaning of the teeth by a professional

A logical prediction from our brief survey of sucrose metabolism by *S. mutans* would be that samples of dental plaque from carious lesions should have a higher concentration of this bacterium and metabolize sucrose in a definable manner Recent studies[12] have demonstrated that there is a marked difference in sucrose metabolism by plaque from a lesion and plaque removed from a noncarious surface on the same tooth. In contrast to the plaque from noncarious sites, the plaque from the diseased sites contained high levels of *S. mutans* and metabolized sucrose to lactic acid at a faster rate. These results support the concept that *S mutans* is metabolically dominant in plaque associated with carious lesions and strengthen the argument for a key role for this bacterium and sugar metabolism in human caries formation

Although we have emphasized the importance of sucrose in the cariogenicity of *S mutans*, it is important to realize that other components of the human diet can be readily utilized for acid production by this bacterium Strains of *S mutans* also have been shown to efficiently transport and metabolize glucose, fructose, lactose, and the polyols sorbitol and manitol[12] In addition, starch may be degraded to glucose and be rapidly metabolized by *S mutans* This ability to utilize a variety of potential substrates from the diet may partially explain the great cariogenic potential of *S mutans* and its capacity to respond to the complexity of foodstuffs which enter the mouth

As discussed previously, acid production by *S mutans* is critically involved in dental enamel modification and consequent caries development It is important that another unique aspect of *S mutans* is its ability to survive and grow in acidic environments Acid production from fermentable carbohydrates in the diet gives *S mutans* a great advantage in the oral cavity since more acid-sensitive bacteria cannot survive and *S mutans* can become the predominant organism at specific sites

Summary

Tooth decay in humans results from acid produced by bacteria during fermentation of dietary carbohydrate Recent findings on the details of this process have shown that of the very many bacteria in the mouth, *Streptococcus mutans* appears to be the primary culprit in caries formation, that *S mutans* infects the mouth after transfer from parents and other people, that *S mutans* lives and eventually can predominate at unique (caries-prone) sites on the teeth, that the level of infection by *S mutans* is increased by the quanitity and frequency of fermentable carbohydrate consumption, and, that *S. mutans* has a unique ability to utilize dietary sucrose to enhance its cariogenic potential. The ability to focus on *S. mutans* as the infectious agent in human dental caries has opened up several new approaches to disease prevention. These approaches are presented in Part II of this article.

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nificant part in workers' compensation proceedings. The American Society of Law & Medicine will sponsor a conference to explore these issues in three important medical areas: the heart, the lungs, and the lower back. The conference will be held May 21–22, 1981, at the Ambassador West Hotel in Chicago, Illinois.

Workshops

Workshops in medical office management will be presented in New York City at the Halloran House, June 15, Monday—8:30 a.m. to 5 p.m.; June 16, Tuesday—8:30 a.m. to 5 p.m.; June 17, Wednesday—8:30 a.m. to 5 p.m.; June 18, Thursday—8:30 a.m. to 5 p.m.; and June 19, Friday—8:30 a.m. to 5 p.m.

12th annual multidisciplinary conference

The 12th annual multidisciplinary conference on health quality care will be held in Cleveland, Ohio, June 22 to 24. Sponsored by the Association for Healthcare Quality, cosponsors include the American Association of Health Data Systems, Quality Review Coordinators of Ohio, Northeast Ohio Medical Record Association, Ohio Medical Record Association, and the School of Medicine of Case Western Reserve University.

For information and details, direct inquiries to Executive Director, Association for Healthcare Quality, Case Western Reserve University School of Medicine, Cleveland, Ohio 44106; telephone (216) 368-3737.

7th Lexington hearing conference

"New directions in the Auditory Evoked Potential" is the theme of the seventh annual Lexington Hearing Conference, to be held May 15 and 16 at the Lexington School for the Deaf in Queens, New York.

Sponsors of the conference are the Lexington Hearing and Speech Center at the Lexington School for the Deaf, Speech and Hearing Services Research Center at the CUNY Graduate School in New York, and Flushing Hospital in Queens, New York.

The conference will be from 8:45 a.m. to 5 p.m., on Friday, May 15, and 9 a.m. to Noon, on Saturday, May 16.

The conference will provide continuing-education credit of 10 hours of the American Speech-Language-Hearing Association and category 1 of the physicians' recognition award of the American Medical Association.

For additional information: Richard Weiner, Inc., 888 Seventh Avenue, New York, 10106; telephone: (212) 582-7373.

International symposium

An international symposium on "Occupant Restraint" will be held June 1 to 3 at the Hotel Toronto, Toronto, Ontario, Canada. The symposium is sponsored by the American Association for Automotive Medicine and the Ministry of Transportation and Communications Province of Ontario.

For information: Elaine Petrucelli (AAAM) (312) 751-6581; Edward M. Blake (MTC) (416) 248-3548; and AAAM, P.O. Box 222, Morton Grove, Illinois 60053, USA.

Fourth colloquium on Theoretical and Ethical Problems in Psychiatry and Psychology

The Fourth Colloquium on Theoretical and Ethical Problems in Psychiatry and Psychology, sponsored by The Institute and Museum of Philosophy at Pace University, Fair Oaks Hospital, and Regent Hospital is scheduled to take place on October 6, 1981, at Pace University's Pace Plaza campus from 9 a.m. to 9 p.m.

The theme of this fourth in a series of Colloquia and Seminars examining the philosophical principles underlying current theory, research, and practice in the field of psychiatric disorders is *Ethical Considerations on the Use of Mind-Altering Drugs: A. Stimulants; B. Tranquilizers; C. Placebo Effect.* The Colloquium will be chaired by Nathan S. Kline, M.D., Director, Rockland Research Institute, and Professors Max Hamburgh and Diane Sank, of The Institute and Museum of Philosophy.

The deadline for submission of abstracts and/or resumes of papers to be presented at the Colloquium is September 1, 1981. All such resumes and abstracts should be mailed to: Dr. Max Hamburgh, Executive Director, The Institute and Museum of Philosophy, Pace University, Pace Plaza, New York 10038; Telephone: (212) 732-4304 or -4305.

12th annual meeting

The Twelfth Annual Meeting of the American Academy of Psychiatry and the Law will be held at the Hotel Del Coronado, in Coronado (San Diego), California, October 15–18, 1981. This promises to be the largest of the Academy's meetings and this term describes not only the projected attendance but also the scope of the meeting and its associated activities.

Gastroenterology teaching day

The fourth annual gastroenterology teaching day is being presented by the Binghamton General Hospital on November 7.

For additional information contact: Christine L. Deyo, Medical Education Coordinator, Binghamton General Hospital, Mitchell Avenue, Binghamton, New York 13903: telephone: (607) 772-1100.

THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

1981 Annual CME Assembly

Friday, June 26—Sunday, June 28

All physicians are invited to attend our Annual Continuing Medical Education Program to be held in Niagara Falls, New York. You will have the opportunity to obtain Category I CME Credits during 2½ days of outstanding General Sessions, Symposia, and Panel Discussions.

As in the past, there will be Scientific and Technical Exhibits to help the physician to become acquainted with the latest research techniques, and to learn about new products and services that will help the physician provide better medical care.

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SCHEDULE OF SCIENTIFIC MEETINGS

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Medical Society of the State of New York
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FRIDAY, JUNE 26

Morning: Cardiovascular Diseases
Obstetrics & Gynecology
Gastroenterology, Colon & Rectal Surgery
Cancer Update 1981—General Session
Chest Diseases

Afternoon: Occupational Medicine, and Medical Legal & Workers' Compensation matters
Obstetrics & Gynecology
Gastroenterology, Colon & Rectal Surgery
Alcohol & the Unborn—General Session
Preventive Medicine
Otolaryngology & Maxillofacial Surgery
Dermatology & Syphilology

SATURDAY, JUNE 27

Morning: Ophthalmology
Internal Medicine
Surgery, Urology & Anesthesiology
Pathology, Radiology & Orthopedic Surgery
Neurosurgery

Afternoon: Ophthalmology
Internal Medicine
Computer Application to Office & Hospital Practice General Session
Albion O. Bernstein, M.D. Award Lecture—General Session

SUNDAY, JUNE 28

Morning: Allergy & Immunology
School Health & Pediatrics
Psychiatry & Family and General Practice
Plastic, Reconstructive & Maxillofacial Surgery
Physical Medicine & Rehabilitation, and Orthopedics
Neurology

CME CREDITS: Each program will be eligible for CME Category I Credits on an hour-for-hour basis.

SCIENTIFIC & TECHNICAL EXHIBITS

BASIC CARDIAC LIFE SUPPORT (BCLS) COURSE is open to MSSNY members only, Friday & Saturday, 8:30 a.m.–4:30 p.m.

PRELIMINARY PROGRAM

1981 ANNUAL CME ASSEMBLY

MEDICAL SOCIETY OF THE STATE OF NEW YORK

June 26 through 28, 1981

Niagara Falls International Convention Center
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Registration

A preregistration form will be found in this issue. For those who preregister, your identification badge and tickets will be held at the MSSNY Registration Desk in the Main Foyer of the Niagara Falls International Convention Center. For those who have not preregistered, registration will take place Thursday, June 25, from 4:00 p.m. to 8:00 p.m., Friday and Saturday, June 26 and 27, from 7:30 a.m. to 5:00 p.m., and Sunday, June 28, from 8:00 a.m. to 1:00 p.m.

Registration is open to MSSNY member physicians and their guests, nonmember physicians, and members of the allied professions. There is no registration fee except for the special course in Basic Cardiac Life Support.

Exhibits

Scientific Exhibits and Technical Exhibits will be located in the Main Foyer of the Niagara Falls International Convention Center. Exhibits will be on view Friday and Saturday, June 26 and 27, from 8:00 a.m. to 5:00 p.m., and Sunday June 28, from 8:00 a.m. to 1:00 p.m.

Scientific Program

General Sessions will be held on Friday, June 26, from 8:00 a.m. to 12:00 noon and from 2:00 p.m. to 5:00 p.m., and on Saturday, June 27, from 1:00 p.m. to 4:00 p.m., and from 4:30 p.m. to 5:30 p.m., in the International Convention Center.

Section Meetings will be held on Friday and Saturday, June 26 and 27, at 8:00 a.m. and 1:00 p.m., and Sunday June 28, from 8:30 a.m. to 1:00 p.m.

CME Credits

The Medical Society of the State of New York Scientific Program Committee as an organization accredited for CME, designates this continuing medical education activity as meeting the criteria for the number of credit hours in Category 1 of the Physician Recognition Award of the AMA, and/or MSSNY's Method 6.

Special Events

Thursday, June 25

GOLF TOURNAMENT. A golf tournament will be held all day on Thursday, June 25th at the Ransom Oaks Golf Course. The cost of green fees and cart will be $25.00. Reservations are limited to 60 golfers. Round-trip transportation between the Niagara Hilton and the golf course is being arranged. Following the tournament, there will be a Dutch Treat reception and dinner.

Friday and Saturday, June 26 and 27

HOSPITALITY SUITE. The Niagara County Medical Society Hospitality Suite will be located at the Niagara Hilton, and open to spouses from 9:00 a.m. to 4:00 p.m., and a General Hospitality Suite, Cash Bar, from 4:00 p.m. to 6:00 p.m.
FAMILY TOURS. See NEWS OF NEW YORK, April 15th issue, for details and registration forms.

Saturday, June 27

MSSNY RECEPTION AND DINNER. All physicians and their guests are welcome to attend a reception and dinner to be held at the Niagara Hilton on Saturday, June 27th. An outstanding guest speaker is scheduled to appear. The reception will start at 7:00 p.m. and dinner at 8:00 p.m. Cost: $30.00.

Annual Convention
1981 Annual CME Assembly

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GEORGE S. STURTZ, M.D., Watertown, *Chairman*
JAMES G. LIONE, Little Neck, *Vice-Chairman*
DORIS WETHERS, M.D., New York City, *Secretary*
HENRY W. KAESSLER, M.D., Bronxville, *Delegate*

Physical Medicine and Rehabilitation

JAMES T. DEMOPOULOS, M.D., New York City, *Chairman*
DAVID G. WELCH, M.D., Glens Falls, *Vice-Chairman*
YASOMA CHALLENOR, M.D., Valhalla, *Secretary*
HOWARD THISTLE, M.D., New York City, *Delegate*

Plastic, Reconstructive, and Maxillofacial Surgery

AVRON DANILLER, M.D., The Bronx, *Chairman*
JAMES G. HOEHN, M.D., Albany, *Vice-Chairman*
ELETHEA CALDWELL, M.D., Rochester, *Secretary*
PHILIP C. BONANNO, M.D., White Plains, *Delegate*

Preventive Medicine and Public Health

RUSSELL C. JOHNSON, M.D., Goshen, *Chairman*
ARTHUR G. BAKER, M.D., Utica, *Vice-Chairman*
JOEL L. NITZKIN, M.D., Rochester, *Secretary*
RUSSELL C. JOHNSON, M.D., Goshen, *Delegate*

Psychiatry

ABRAHAM P. PERLSTEIN, M.D., Lynbrook, *Chairman*
JEROME S. SILVERMAN, M.D., New York City, *Vice-Chairman*
ROBERT CAMPBELL, M.D., New York City, *Secretary*
HAROLD E. BERSON, M.D., Brooklyn, *Delegate*

Radiology

THEODORE ROBINSON, M.D., New York City, *Chairman*
VICTOR PANARO, M.D., Buffalo, *Vice-Chairman*
VICTOR PANARO, M.D., Buffalo, *Delegate*

School Health

MARTIN C. USHKOW, M.D., Syracuse, *Chairman*
VIOLA F. ANDERSON, M.D., Bronxville, *Vice-Chairman*
ARTHUR HOWARD, M.D., Johnstown, *Secretary*
ARTHUR HOWARD, M.D., Johnstown, *Delegate*

Surgery

GERALD J. LUSTIG, M.D., Staten Island, *Chairman*
ALFRED F. LUHR, Jr., M.D., Buffalo, *Vice-Chairman*
THEODORE C. MAX, M.D., Utica, *Delegate*

Urology

LAWRENCE RAVICH, M.D., Bethpage, *Chairman*
IRWIN FRANK, M.D., Rochester, *Vice-Chairman*
ANDREW McGOWAN, M.D., Rockville Centre, *Secretary*
LAWRENCE RAVICH, M.D., Bethpage, *Delegate*

■ All papers *read before the Society become the property of the Society. The original copy of each paper shall be left with the Secretary of the Section.*

■ Discussers *should have their remarks typed and should hand them to the Secretary.*

■ Section meetings *shall begin promptly at the hour specified.*

■ Executive Session—*The first order of business, election of officers. "To participate in the election of any section, a member of the Medical Society of the State of New York must register with such section."*

—BYLAWS, ARTICLE XII, SECTION I

FRIDAY, JUNE 26, 1981

Obstetrics and Gynecology

8:00 A.M.–5:00 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 8 Hours, Category 1; AAFP, 8 Hours, Prescribed

CURRENT PROBLEMS IN OBSTETRICS AND GYNECOLOGY

Simon Duckman, M.D., Brooklyn, *Moderator*
Clinical Professor, Obstetrics and Gynecology, State University of New York, Downstate Medical Center; Attending and Director of Obstetrics and Gynecology, Brooklyn Hospital Division, the Brooklyn-Cumberland Medical Center

Objective: The entire day will be devoted to a review with the participants of timely topics in both obstetrics and gynecology. We are fortunate in having seven outstanding speakers discuss these problems which we know will be of interest and advantage to those attending. Questions from the floor will be encouraged after each presentation.

8:00 A. M. **Executive Session**

8:10 A.M. **Preventive Antibiotics in Gynecology and Obstetrics**
William P. Dillon, M.D., Buffalo
Assistant Professor, Obstetrics and Gynecology, State University of New York at Buffalo

9:10 A.M. **Menopause—Endocrinology and Therapy**
James R. Jones, M.D., New Jersey
Professor and Chairman, Obstetrics and Gynecology, Rutgers Medical School

10:20 A.M. **Coffee Break to View Exhibits**

10:40 A.M. **Recent Trends in Cesarean Sections**
Richard H. Schwarz, M.D., Brooklyn
Professor and Chairman, Obstetrics and Gynecology, State University of New York Downstate Medical Center

11:40 A.M. **Premature Rupture of the Membranes: Premature Labor Syndrome**
Roy H. Petrie, M.D., New York City
Associate Professor of Obstetrics and Gynecology, College of Physicians and Surgeons, Columbia University

1:45 P.M. **The Place of the Non-Stress Test in Post Datism**
James O'Leary, M.D., Buffalo
Professor and Chairman, Department of Obstetrics and Gynecology, State University of New York at Buffalo

2:45 P.M. **Coffee Break to View Exhibits**

3:00 P.M. **Overview of Colposcopy and Treatment of Intra-Epithelial Neoplasia of the Cervix**
George C. Trombetta, M.D., Rochester
Professor Obstetrics and Gynecology, University of Rochester Medical School; Chief, Department of Obstetrics and Gynecology, Highland Hospital

4:00 P.M. **Dysfunctional Uterine Bleeding: Endometrial Hyperplasia and Endometrial Carcinoma**
M. Steven Piver, M.D., Buffalo
Associate Chief Oncology, Roswell Park Memorial Institute; Clinical Professor of Gynecology, State University of New York at Buffalo

Cardiovascular Diseases

8:30 A.M.–12:00 NOON

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 4 Hours, Category 1; AAFP, 4 Hours, Prescribed

THE RELATIONSHIP OF CHANGES IN LIFE STYLE TO THE DECLINE IN CARDIOVASCULAR MORTALITY

Joseph Schluger, M.D., Brooklyn, *Moderator*
Director, Department of Internal Medicine, the Long Island College Hospital; Clinical Associate Professor of Medicine, State University of New York, Downstate Medical Center

Objective: To examine and discuss the recently reported decline in cardiovascular mortality, and determine if and how changes in patients' life styles contribute to the reported decline. An attempt to develop guidelines for life styles in the next decade will be discussed.

8:30 A.M. **Executive Session**

8:40 A.M. **Introduction: Is the Decline in Cardiovascular Mortality Real?**
Joseph Schluger, M.D., Brooklyn

9:10 A.M. **Reduction in Cardiovascular Mortality by Modification of Primary Risk Factors**
Joseph Doyle, M.D., Albany
Professor of Medicine and Head of the Division of Cardiology, Albany Medical College

9:40 A.M. **The Effects of Long-Term Exercise Training on Patient Outcome**
John Naughton, M.D., Buffalo
Dean, School of Medicine, State University of New York at Buffalo

10:10 A.M. **Coffee Break to View Exhibits**

10:40 A.M. **Impact of Improved Medical Management on Cardiovascular Disease Mortality**
William Ruberman, M.D., Brooklyn
Director of Medical Research, Health Insurance Plan of New York; Clinical Associate Professor of Medicine, State University of New York Downstate Medical Center

11:20 A.M. **Panel Discussion and Questions**
Joseph Doyle, M.D., Albany
John Naughton, M.D., Buffalo
William Ruberman, M.D., Brooklyn
Joseph Schluger, M.D., Brooklyn

Gastroenterology, and Colon, and Rectal Surgery Radiology

9:00 A.M.–5:00 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 6 Hours, Category 1; AAFP, 6 Hours, Personal Interest

80s UPDATE—VENEREAL DISEASE

Harold Bernhard, M.D., Buffalo, *Moderator*
Director of Gastroenterology, Millard Fillmore Hospital

Objective: Combined meeting of Colon and Rectal and Gastroenterology Sections will consider recent advances in colonoscopy and their clinical application to the detection, evaluation and treatment of a variety of colonic disorders. Also to be discussed are means of detecting and treating an increasing number of sexually transmitted intestinal diseases, including hepatitis, giardiasis and amebiasis.

8:30 A.M. **Executive Session**

9:00 A.M. **Intestinal Venereal Disease in 1980s**
Jerome Hruska, M.D., PhD., Rochester
Assistant Professor Medicine, University of Rochester Medical Center, Strong Memorial Hospital

9:30 A.M. **Colorectal View of Venereal Disease**
Richard D. Robbins, M.D., N.Y.C.
Assistant Clinical Professor Surgery, New York University School of Medicine

10:00 A.M. **Panel Discussion**

10:30 A.M. **Coffee Break to View Exhibits**

11:00 A.M. **A.F.R. Andresen Honorary Memorial Lectureship of the Medical Society of the State of New York: "Crohn's Disease of the Duodenum"**
Bertram A. Portin, M.D., Buffalo
President, American Society of Colon and Rectal Surgeons; Chief, Rectal and Colon Surgery, Buffalo General Hospital

COLONOSCOPY—UPLOOK FOR THE 80s

2:00 P.M.–5:00 P.M.

Thomas H. Dailey, M.D., New York City, *Moderator*
President, New York Society of Colon and Rectal Surgeons; Attending Surgeon, St. Luke's-Roosevelt Hospital Center, New York City
Harold Bernhard, M.D., Buffalo, *Moderator*
Director of Gastroenterology, Millard Fillmore Hospital

2:00 P.M. **Executive Session for Section on Radiology**

2:05 P.M. **Guidelines for Use of Flexible Colonoscope**
Martin S. Kleinman, M.D., Rochester
Associate Professor of Medicine, University of Rochester Medical Center; Director Gastrointestinal Endoscopy Unit, Strong Memorial Hospital

2:30 P.M. **Coffee Break to View Exhibits**

2:45 P.M. **Mutual Aids: Radiologist and Endoscopist**
Victor A. Panaro, M.D., Buffalo
Associate Director of Radiology, Erie County Medical Center; Clinical Professor of Radiology and Nuclear Medicine, State University of New York at Buffalo

3:15 P.M. **Surgical Indications for Colonoscopy—Do's and Don'ts**
Amerjit Singh, M.D., Buffalo
Assistant Professor of Surgery, Buffalo Medical Center

3:45 P.M. **Panel Discussion**

Preventive Medicine and Public Health

2:00 P.M.–5:00 P.M.

CONTINUING MEDICAL EDUCATION CREDIT, AMA, PRA, 3 Hours, Category 1; AAFP, 3 Hours, Personal Interest

PATIENT PARTICIPATION IN HEALTH CARE

John T. Gentry, M.D., Buffalo, *Moderator*
Commissioner of Health, Erie County Health Department

Objective: This program will stress the importance of patient education by the physician. With medicare and medicaid patients accounting for close to 80 percent of inhospital patient days, it is important that the patient and patient's family be instructed as to posthospital needs and care. The physician must be properly informed as to how to do this and as to its importance.

2:00 P.M. **Executive Session**

2:05 P.M. **Exercise: Change of Lifestyle and Heart Disease**
John P. Naughton, M.D., Buffalo
Dean of the School of Medicine, State University of New York at Buffalo; Project Director for National Exercise and Heart Disease Project

2:35 P.M. **The Effectiveness of Patient Education in Influencing Outcomes in Diabetes Mellitus**
Paul J. Davis, M.D., Buffalo
Professor and Vice Chairman, Department of Medicine; and Head of Endocrinology, School of Medicine, State University of New York at Buffalo

3:00 P.M. **Coffee Break to View Exhibits**

3:15 P.M. **Lifestyle Management Strategies at New York Telephone Company**
Loring Wood, M.D., New York City
Medical Director, New York Telephone Company

3:45 P.M. **Government Strategies for Promoting Health Education and Illness Prevention**
David Harris, M.D., Hauppauge
Commissioner of Health, Suffolk County Health Department

4:15 P.M. **Reduction of Heart Disease Risk Behaviors in Children: The Know Your Body Project**
Charles Arnold, M.D., New York City
Vice President for Research; and Director, Mahoney Institute for Health Maintenance, American Health Foundation, New York City

4:45 P.M. **Panel Discussion**

GENERAL SESSION
CANCER UPDATE 1981

8:00 A.M.–12:00 NOON

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 4 Hours, Category 1; AAFP, 4 Hours, Prescribed

CANCER UPDATE 1981: ADVANCES IN EARLY DIAGNOSIS AND TREATMENT

MARTIN LIPKIN, M.D., N.Y.C., *Moderator*
Associate Chairman, Scientific Program Committee, Medical Society of the State of New York

Objective: The objectives of this General Session are to describe the most recent advances for the diagnoses and treatment of neoplastic diseases. New biochemical and immunologic diagnostic procedures in the early detection of a variety of cancers, and in the surgical and medical treatment of these lesions will be discussed. Important new advances in the care of patients having advanced stages of disease will be fully reviewed.

8:00 A.M. **Prostatic Carcinoma: Current Approach to Therapy**
SUNMOLU BECKLEY, M.D., Buffalo
Department of Urology, Roswell Park Memorial Institute, Buffalo

8:20 A.M. **Ectopic Hormone Syndromes**
MELVIN HORWITH, M.D., New York City
Clinical Professor of Medicine (Endocrinology), Cornell University Medical College, The New York Hospital

8:40 A.M. **Discussion**

8:50 A.M. **C. T. Scanning and Sonography in Tumor Diagnosis**
EUGENE V. LESLIE, M.D., Buffalo
Professor and Chairman, Department of Radiology, State University of New York at Buffalo Medical School; Director of Radiology, Erie County Medical Center

9:10 A.M. **Tumors of the Gastrointestinal Tract**
MARTIN H. POLESKI, M.D., Montreal, Canada
Attending Physician, Sir Mortimer B. Davis Jewish General Hospital

9:30 A.M. **Discussion**

9:40 A.M. **Coffee Break to View Exhibits**

10:20 A.M. **Hospice: Maintaining the Dignity of Life**
STEPHEN NORDLICHT, M.D., New York City
Consulting Psychiatrist, Memorial Sloan-Kettering Cancer Center

10:40 A.M. **Discussion**

10:50 A.M. **New Developments In Cancer Chemotherapy**
PATRICK J. CREAVEN, M.D., Buffalo
Chief, Department of Clinical Pharmacology and Therapeutics, Roswell Park Memorial Institute

11:10 A.M. **Identification of Patients with Increased Susceptibility to Cancer**
MARTIN LIPKIN, M.D., New York City
Professor of Medicine, Cornell University Medical College, Memorial Sloan-Kettering Cancer Center

11:30 A.M. **Panel Discussion**

Otolaryngology and Maxillofacial Surgery

1:00 P.M.—5:00 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 4 Hours, Category 1; AAFP, 4 Hours, Personal Interest

ADVANCES IN OTOLARYNGOLOGY

STEVEN M. PARNES, M.D., Albany, *Moderator*
Associate Professor of Otolaryngology, Albany Medical College; Consultant in Otolaryngology, Veterans Administration Hospital, Albany

Objective: This program will update the attendees on advances in the specialty, as foreseen for the decade of the eighties.

1:00 P.M. **Executive Session**

1:05 P.M. **Role of Nutrition in the Patient with Head and Neck Cancer**
EUGENE MYERS, M.D., Pittsburgh, Pa.
Chairman of Otolaryngology, University of Pittsburgh School of Medicine

1:50 P.M. **Myocutaneous Flaps**
HUGH BILLER, M.D., New York City
Director and Chief of Otolaryngology, Mt. Sinai Hospital, New York

2:35 P.M. **Thyroid Update**
JOHN LORE, JR., M.D., Buffalo
Professor and Chairman of the Department of Otolaryngology, State University of New York at Buffalo; Head and Attending, Department of Otorhinolaryngology, Childrens Hospital

3:15 P.M. **Coffee Break to View Exhibits**

3:30 P.M. **Management of the Patient with Acoustic Neuroma**
MAXWELL ABRAMSON, M.D., New York City
Professor and Chairman, Department of Otolaryngology, Columbia University
BENNETT M. STEIN, M.D., New York City
Professor and Chairman of Neurological Surgery, Columbia University College of Physicians and Surgeons

4:10 P.M. **Recent Advances In Evaluation and Treatment of Vocal Cord Paralysis**
STEVEN M. PARNES, M.D., Albany
Associate Professor of Otolaryngology, Albany Medical College
S. SATYA-MURTI, M.D. Albany
Associate Professor of Neurology, Albany Medical College

Medical-Legal and Workers' Compensation Matters Occupational Medicine

1:00 P.M.–5:00 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 4 Hours, Category 1; AAFP, 4 hours, Prescribed

ABILITY TO WORK: A MULTIDISCIPLINARY VIEW

NORMAN ASHENBURG, M.D., Rochester, *Moderator*
Corporate Medical Director, Eastman Kodak Company

Objective: The physician who attends this symposium will become familiar with methods for determining disability and ability to return to work.

1:00 P.M. **Executive Session: Section on Occupational Medicine**
GEORGE W. ANSTADT, M.D., Rochester
Area Physician, Kodak Park Department, Eastman Kodak Company

1:05 P.M. **Executive Session: Section on Medical-Legal and Workers' Compensation Matters**
BROCK H. POWELL, M.D., Rochester
Assistant Medical Director, Kodak Park Department, Eastman Kodak Company

1:10 P.M. **Introduction**
NORMAN ASHENBURG, M.D., Rochester

1:20 P.M. **The Private Practice of Occupational Medicine Viewpoint**
MARVIN AMDUR, M.D., Buffalo
Director, Buffalo Industrial Medical Center

1:40 P.M. **The Legal and Workers' Compensation Viewpoint**
MR. ANDREW SCIARRINO, Buffalo
Attorney, Phillips, Lytle, Hitchcock, Blaine, Huber; Chairman of Workers' Compensation Committee of Erie County Bar Association

2:10 P.M. **The Rehabilitation Viewpoint**
ROBERT JONES M.D., Rochester
Rehabilitation Consultant, Kodak Park Medical Department, Eastman Kodak Company

3:00 P.M. **Coffee Break to View Exhibits**

3:15 P.M. **The Social Security Viewpoint**
HARRY R. PACE, M.D., New York City
Chief Medical Consultant, New York State Department of Social Services, Bureau of Disability Determinations

3:45 P.M. **The Orthopedic Viewpoint**
M. LAURENS ROWE, M.D., Rochester
Orthopedic Consultant, Eastman Kodak Company

4:15 P.M. **Panel Discussion**

Chest Diseases

9:00 A.M.—12:00 NOON

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 4 Hours, Category 1; AAFP, 4 Hours, Personal Interest

DIAGNOSIS OF CHEST DISEASES IN THE 1980s

MORTON C. GLUCK, M.D., New York City, *Moderator*
Clinical Associate Professor, New York Medical College; Associate Attending, St. Clare's Hospital and Health Center and Cabrini Health Care Center

Objective: A symposium titled, "Diagnosis of Chest Diseases in the 80s," will highlight percutaneous fluoroscopically controlled needle biopsy of lung and mediastinal masses. Bronchoscopy and biopsy procedures will be reviewed and updated. The present day use of blood tests in the diagnosis and treatment of pulmonary diseases will be discussed.

9:00 A.M. **Executive Session**

9:05 A.M. **Computerized Axial Tomography (C.A.T.) Scan vs. Biopsies**
STEPHEN ZINN, M.D., New York City
Clinical Associate Professor, New Jersey College of Medicine; Director, Radiology Department, St. Clare's Hospital and Health Center

9:40 A.M. **Invasive Procedures: Bronchoscopy, Pleural and Pulmonary Biopsy**
VICTOR C. DELUCCIA, M.D., New York City
Clinical Associate Professor Surgery, New York Medical College; Chief, Thoracic Surgery, St. Clare's Hospital and Health Center

10:15 A.M. **Coffee Break to View Exhibits**

10:30 A.M. **Useful Blood Tests in Diagnosis and Treatment**
MORTON C. GLUCK, M.D., New York City

11:10 A.M. **THE 31st ANNUAL HOWARD C. LILIENTHAL MEMORIAL LECTURE: The Surgical Approach to Cardiac Arrhythmias**
ALDEN H. HARKEN, M.D., Philadelphia, Pennsylvania
Professor of Cardiothoracic Surgery, University of Pennsylvania School of Medicine

12:00 NOON **Luncheon: Sky Lounge, Convention Center**
Luncheon Speaker:
DWIGHT E. HARKEN, M.D., Cambridge, Massachusetts
Clinical Professor of Surgery, Emeritus, Harvard Medical School, Boston, Massachusetts

ASSISTED CIRCULATION: Its Origins to Universal Use

Emergency Medicine Jointly Sponsored by The New York State Chapter of the American College of Emergency Physicians

8:30 A.M.–4:30 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 7 Hours, Category 1; AAFP, 7 Hours, Prescribed. ACEP, 7 Hours, Category 1

BASIC CARDIAC LIFE SUPPORT COURSE

Open to members of MSSNY only and limited to 24 persons

Registration Fee: $50.00. See this issue of Journal for the Preregistration Form

Dermatology and Syphilology Joint Meeting with the New York State Society of Dermatology

2:00 P.M.—5:00 P.M.

CONTINUING MEDICAL EDUCATION CREDIT, AMA, PRA, 3 Hours, Category 1; AAFP, 3 Hours, Prescribed

SEXUALLY TRANSMITTED DISEASES: THE EFFECT OF LIFESTYLE CHANGES

LEE R. LUMPKIN, M.D., Albany, *Chairman*
Clinical Professor and Head of Division of Dermatology, Albany Medical College; Dermatologist-in-Chief, Albany Medical Center Hospital

Objective: Physicians attending this symposium will become informed on recent effects of lifestyles on sexually transmitted diseases, their diagnosis and treatment

Executive Sessions

2:00 P.M. **Sexually Transmitted Diseases in the 80s: An Overview**
YEHUDI M. FELMAN, M.D., Brooklyn
Clinical Associate Professor of Dermatology, State University of New York Downstate Medical Center; Director, Bureau of Venereal Disease Control, New York City Health Department

2:30 P.M. **Syphilis and Other Sexually Transmitted Diseases in the Gay Scene**
BRUMMITTE D. WILSON, M.D., Buffalo
Department of Dermatology, Roswell Park Memorial Institute

3:00 P.M. **Discussion**

3:20 P.M. **Coffee Break to View Exhibits**

3:40 P.M. **Other Sexually Transmitted Diseases: Genital Herpes, Warts, Molluscum; Scabies and Pediculosis**
LEE R. LUMPKIN, M.D., Albany

4:10 P.M. **Current Therapies for Sexually Transmitted Diseases**
BERNARD F. MCEVOY, M.D., Schenectady
Clinical Associate Professor of Dermatology, Albany Medical College, Dermatologist, Ellis Hospital, Schenectady

4:40 P.M. **Discussion**

GENERAL SESSION Joint Meeting With Committee on Alcoholism, MSSNY New York State Division of Alcoholism and Alcohol Abuse

2:00 P.M.-5:00 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 3 Hours, Category 1; AAFP, 3 Hours, Prescribed

ALCOHOL AND THE UNBORN

BRIAN R. NAGY, M.D., *Elmira, Moderator*
Medical Director of Southern Tier Alcoholism Rehabilitation Service (STARS); Assistant Professor of Psychiatry, University of Rochester School of Medicine and Dentistry

Objective: This symposium will inform physicians of the importance of being alert to the signs and symptoms of alcoholism in the pregnant patient; so that diagnosis can be made and appropriate treatment to both mother and newborn can be instituted.

2:00 P.M. **Introduction**
BRIAN R. NAGY, M.D.

2:10 P.M. **Fetal Alcohol Syndrome and Alcohol Related Birth Defects**
HAROLD NITOWSKI, M.D., The Bronx
Professor of Pediatrics and Genetics, and Director of Genetic Counselling Program, Rose F. Kennedy Center of the Albert Einstein College of Medicine

2:40 P.M. **Drinking and Pregnancy — Review of Current Research**
MARCIA RUSSELL, PH.D., Buffalo
Research Scientist IV, Research Institute on Alcoholism

3:10 P.M. **Coffee Break to View Exhibits**

3:30 P.M. **Women and Alcohol**
SHEILA BLUME, M.D., Albany
Director, New York State Division of Alcoholism and Alcohol Abuse

4:00 P.M. **Fetal Alcohol Syndrome**
AMOL LELE, M.D., Buffalo
Assistant Professor of Obstetrics and Gynecology, Division of Maternal Fetal Medicine, State University of New York School of Medicine at Buffalo

4:30 P.M. **Panel Discussion**

SATURDAY, JUNE 27, 1981

GENERAL SESSION
Joint Meeting with the New York State Society of Internal Medicine

9:00 A.M.–4:00 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 6 Hours, Category 1; AAFP, 6 Hours, Prescribed

UPDATE YOUR CARDIAC TESTING

CHARLES RESSLER, M.D., New York City, *Moderator*
Chairman, Section on Internal Medicine, Medical Society of the State of New York; Past President, New York State Society of Internal Medicine; Associate Attending Physician, New York Hospital

Objective: Various testing and diagnostic procedures will be presented with the objective of increasing the physician's ability to diagnose cardiac disabilities and evaluate the prognosis for his own and his patient's benefit.

Executive Session

9:00 A.M. **The Evolution of Stress Testing**
ISADORE ROSENFELD, M.D., New York City
Clinical Professor of Medicine, Cornell University Medical College; Attending Physician, New York Hospital

9:30 A.M. **Office Use of Exercise Testing and Its Usefulness in Predicting Survival from Myocardial Infarction**
JOHN P. NAUGHTON, M.D., Buffalo
Dean, School of Medicine, State University of New York at Buffalo

10:00 A.M. **Radionuclide-Based Techniques in Evaluating Patients with Coronary Artery Disease**
JEFFREY S. BORER, M.D., New York City
Associate Professor of Medicine, Cornell University Medical College; Chief, Cardiac Catheterization Laboratory and Director of Nuclear Cardiology, New York Hospital

10:45 A.M. **Coffee Break to View Exhibits**

11:00 A.M. **Radionuclide-Based Techniques in Evaluating Patients with Valvular Disease and Cardiomyopathy, including Thalium Perfusion**
JEFFREY S. BORER, M.D., New York City

11:30 A.M. **Panel Discussion**

THE ABOVE SPEAKERS

1:00 P.M.–4:00 P.M.

MAXWELL SPRING, M.D., Bronx, *Moderator*
Associate Chairman, Scientific Program Committee, Medical Society of the State of New York; Clinical Associate Professor of Medicine, College of Medicine and Dentistry of New Jersey Medical School

1:00 P.M. **Echocardiography**
RAYMOND GRAMIAK, M.D., Rochester
Professor of Diagnostic Radiology, University of Rochester School of Medicine and Dentistry

1:30 P.M. **Cardiac Catheterization**
EPHRAIM GLASSMAN, M.D., New York City
Professor of Medicine, New York University School of Medicine

2:15 P.M. **Coffee Break to View Exhibits**

2:30 P.M. **The Clinical Usefulness of Holter Monitoring**
ARTHUR J. MOSS, M.D., Rochester
Professor of Medicine, Department of Preventive Medicine, Family Health and Rehabilitation Medicine, University of Rochester School of Medicine and Dentistry

3:00 P.M. **Panel Discussion**

THE ABOVE SPEAKERS

Emergency Medicine
Jointly Sponsored by The New York State Chapter of the American College of Emergency Physicians

8:30 A.M.–4:30 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 7 Hours, Category 1; AAFP, 7 Hours, Prescribed; ACEP, 7 Hours, Category 1

BASIC CARDIAC LIFE SUPPORT COURSE

Open to members of MSSNY only and limited to 24 persons

Registration Fee: $50.00. See this issue of Journal for the Preregistration Form.

Ophthalmology

8:00 A.M.—4:00 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 7 Hours, Category 1; AAFP, 7 Hours, Personal Interest

VITRECTOMY

J. S. Nauheim, M.D., Merrick, *Moderator*
Assistant Professor, Clinical Ophthalmology, State University of New York at Stony Brook; Attending Ophthalmology, Nassau County Medical Center

Objective: The meeting on Vitrectomy has the objective of providing the practicing ophthalmologist with an update on current indications, techniques, and management of patients who are potential candidates for vitrectomy surgery. The symposium on Eye Muscle Surgery is designed to update the practicing ophthalmologist in the surgical treatment of problem cases in ocular motility. Discussions will be designed to cover diagnosis, management of intraoperative problems, and postoperative care.

Executive Session

8:00 A.M. **Introduction**
J. S. Nauheim, M.D., Merrick

8:05 A.M. **Vitrectomy in Ocular Trauma**
Richard Mackool, M.D., Astoria
Attending Surgeon, New York Eye and Ear Infirmary

8:45 A.M. **Vitrectomy in Diabetes**
W. A. J. Van Heuven, M.D., Albany
Professor of Ophthalmology and Head Retina Division, Albany Medical College

9:30 A.M. **Anterior Segment Vitrectomy with Special Reference to Intraocular Lenses**
K. Buol Heslin, M.D., New York City
Attending Surgeon, New York Eye and Ear Infirmary

10:00 A.M. **Coffee Break to View Exhibits**

10:15 A.M. **Vitrectomy as an Adjunct to Retinal Surgery**
Peter Schwartz, M.D., New Hyde Park
Assistant Professor Ophthalmology, State University of New York at Stony Brook; Physician in Charge, Division of Vitreo-Retinal Surgery, Long Island Jewish-Hillside Medical Center

11:00 A.M. **Oblique Muscle Surgery, Indications and Techniques**
Edward L. Raab, M.D., New York City
Associate Professor Ophthalmology, Assistant Professor of Pediatrics, Director, Pediatric Ophthalmology and Ocular Motility Clinics, Mount Sinai Medical Center

1:00 P.M. **Surgical Treatment of Eye Muscle Palsies**
Henry Metz, M.D., Rochester
Professor of Ophthalmology and Chairman of the Department of Ophthalmology, University of Rochester Medical Center

1:30 P.M. **Treatment of Double Hypertropia**
Philip Knapp, M.D., New York City
Professor of Clinical Ophthalmology and Director, Ocular Motility Clinic, Eye Institute, Columbia University

2:00 P.M. **Reoperations—Technical Problems at Surgery**
Robert B. Reinecke, M.D., Albany
Professor of Ophthalmology and Chairman of the Department of Ophthalmology, Albany Medical College

3:00 P.M. **Coffee Break to View Exhibits**

3:15 P.M. **The Surgical Treatment of Nystagmus**
Abraham Schlossman, M.D., New York City
Director of the Ocular Motility Clinic, Manhattan Eye, Ear and Throat Hospital; Assistant Professor, Clinical Ophthalmology, Mount Sinai Medical School

Neurosurgery

9:00 A.M.-12:30 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 4 Hours, Category 1; AAFP, 4 Hours, Personal Interest

CEREBROVASCULAR SURGERY IN THE POSTERIOR FOSSA

Jack M. Fein, M.D., The Bronx, *Moderator*
Associate Professor of Neurosurgery, Albert Einstein College of Medicine; Attending Neurosurgeon, Hospital of the Albert Einstein College of Medicine

Objective: The objective of this program is to provide a review of contemporary methods for managing cerebrovascular lesions which affect the cerebellum and brain stem. Microvascular techniques will be emphasized.

Executive Session

9:00 A.M. **Pertinent Microsurgical Anatomy**
L. Nelson Hopkins, M.D., Buffalo
Clinical Assistant Professor in Neurosurgery, State University of New York at Buffalo

9:20 A.M. **Posterior Fossa Aneurysms**
Shelley Chou, M.D., Minneapolis, Minnesota
Professor and Chairman of Neurosurgery, University of Minnesota Medical School

10:00 A.M. **Posterior Fossa Arteriovenous Malformation**
Russel Patterson, M.D., New York City
Professor and Chairman of Neurosurgery, Cornell University Medical College

10:30 A.M. **Coffee Break to View Exhibits**

10:45 A.M. **Bypass Surgery in the Posterior Fossa**
Jack M. Fein, M.D., The Bronx

11:20 A.M. **Free Papers—by Members of Section on Neurosurgery**

Pathology
Orthopedic Surgery
Radiology
Joint Meeting With the New York State Society of Pathologists

8:00 A.M.-4:00 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 6 Hours, Category 1; AAFP, 6 Hours, Personel Interest

ARTHROPATHIES: ORTHOPEDIC, PATHOLOGIC, AND RADIOLOGIC VIEWS

HERBERT LANSKY, M.D., North Tonawanda, *Moderator*
Director of Laboratories, DeGraff Memorial Hospital; Clinical Assistant Professor of Pathology, State University of New York at Buffalo

Objective: This program is designed to familiarize the specialist and the primary care physician with the problems of the arthropathies. Diagnosis, treatment, and pathology will be covered. Case histories, x-rays, gross photographs, and micrographs available for home study can be ordered in advance for a reasonable price from the office of Continuing Education, New York State Society of Pathologists, 445 Tremont Street, North Tonawanda, New York 14120.

8:00 A.M. **Executive Sessions**

8:10 A.M. **The Immunology of Joint Diseases**
PIERRE W. KEITGES, M.D., Kansas City, Missouri
Clinical Professor of Pathology, University of Kansas Medical Center, Kansas City, Kansas; Chief, Hospital Pathology and Laboratory Services, St. Joseph Hospital, Kansas City, Missouri

8:45 A.M. **Synovial Fluid-A Diagnostic Medium**
ARTHUR F. KRIEG, M.D., Hershey, Pennsylvania
Professor of Pathology, Pennsylvania State University; Director, Division of Clinical Pathology, The Milton S. Hershey Medical Center

9:30 A.M. **Question and Answer Session**

10:00 A.M. **Coffee Break to View Exhibits**

10:30 A.M. **Joint Diseases**
HOWARD D. DORFMAN, M.D., Baltimore, Maryland
Pathologist-in-Chief, Sinai Hospital of Baltimore; Associate Professor of Pathology and Associate Professor of Orthopedic Surgery, Johns Hopkins University School of Medicine

11:00 A.M.
ALEX NORMAN, M.D., New York City
Director of Radiology, Hospital for Joint Diseases, Orthopaedic Institute; Professor of Radiology, Mt. Sinai School of Medicine, City University of New York

11:30 A.M. **Question and Answer Session**

2:00 P.M. **An Overview of Joint Replacement Therapy—1981**
CHARLES MCCOLLISTER EVARTS, M.D., Rochester
Professor of Orthopedics, University of Rochester School of Medicine; Chief of Orthopedics, Strong Memorial Hospital

2:45 P.M. **The Spine—An Orthopedic and Radiologic Enigma**
DAVID L. BERENS, M.D., Buffalo
Clinical Professor of Radiology, State University of New York at Buffalo; Attending Radiologist, Buffalo General Hospital

3:30 P.M. **Question and Answer Session**

Anesthesiology
Surgery and Urology

8:00 A.M.-1:00 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 5 Hours, Category 1; AAFP, 5 Hours, Personal Interest

SYMPOSIUM ON TRAUMA SURGERY

BERNARD M. JAFFE, M.D., Brooklyn, *Moderator*
Professor and Chairman, Department of Surgery, State University of New York at Brooklyn, Downstate Medical Center

Objective: This program will present techniques in the evaluation and treatment of generalized trauma with special attention to thoracic, abdominal and genitourinary injuries.

8:00 A.M. **Executive Sessions**

8:10 A.M. **Introduction**
GERALD J. LUSTIG, M.D., Staten Island
Assistant Professor of Surgery, State University of New York, Downstate Medical Center, Brooklyn, Director, Emeritus Surgery Staten Island Hospital

8:15 A.M. **RAPHAEL W. ROBERTAZZI MEMORIAL LECTURE:**
Management and Prevention of Organ Damage in the Traumatized Patient
MICHAEL LONG, M.D., Boston, Massachusetts
Assistant Professor of Anesthesiology, Harvard Medical School; Associate Director, Recovery Room, Massachusetts General Hospital

8:45 A.M. **Techniques in the Evaluation of Abdominal Trauma**
GERALD W. SHAFTAN, M.D., Brooklyn
Professor of Surgery and Chief, Division of Trauma, State University of New York at Brooklyn, Downstate Medical Center

9:15 A.M. **Treatment of Complex Abdominal Injuries**
JERRY M. SHUCK, M.D., Cleveland, Ohio
Professor and Chairman, Department of Surgery, Case Western Reserve University

9:45 A.M. **The Etiology, Diagnosis, and Treatment of Bladder Trauma**
STEPHEN HIRSCH, M.D., Freeport
Associate Director and Attending Surgeon of Urology, Nassau County Medical Center, East Meadow

10:15 A.M. **Coffee Break to View Exhibits**

10:30 A.M. **Current Management of Traumatic Chest Injuries**
EDDIE L. HOOVER, M.D., Brooklyn
Director of Surgery, Veterans Administration Hospital; Associate Professor of Surgery, Downstate Medical Center

11:00 A.M. **Current Evaluation and Treatment of Genitourinary Trauma**
J. EDSON PONTES, M.D., Buffalo
Chief of Urology, Roswell Park Memorial Institute; Associate Professor of Urology, State University of New York at Buffalo

11:30 A.M. **Monitoring of Seriously Ill Trauma Patients**
JOHN H. SIEGEL, M.D., Buffalo
Director of Surgery, Buffalo General Hospital; Professor of Surgery, State University of New York at Buffalo

12:00 Noon **Questions and Panel Discussion**
BERNARD M. JAFFE, M.D., Brooklyn, *Moderator*

GENERAL SESSION
Joint Meeting With
Committee on Information Technology in Medicine, MSSNY
New York State
Department of Health
The Society for Computer Medicine

1:00 P.M.—4:00 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 3 Hours, Category 1; AAFP, 3 Hours, Personal Interest

COMPUTER-ASSISTED OFFICE PRACTICE: RECENT PROGRESS

WILLIAM A. BAUMAN, M.D., Larchmont, *Moderator*
Chairman, Committee on Information Technology in Medicine, Medical Society of the State of New York; Vice President, Medical Affairs, Danbury Hospital, Danbury, Connecticut; Associate Clinical Professor Pediatrics, Columbia University College of Physicians and Surgeons

Objective: This program intends to present an effective appraisal of the use of computers in office practice. This will be concerned with patient care rather than business methods. A practical method of setting up a clinical information system will be discussed.

1:10 P.M. **Importance of Accurate Coding of Medical Terms**
JOHN S. UPPAL, Sc.D., Albany
Director, Management and Systems, New York State Department of Health

1:20 P.M. **Computer-Based Automated Encoding of Medical Terms**
ELEMER R. GABRIELI, M.D., Buffalo
Assistant Clinical Professor of Pathology, State University of New York at Buffalo; Director, PRAKTICE Medical Data Center
ELLEN R. MUHL, M.L.S., Buffalo
Information Scientist, PRAKTICE Medical Data Center

1:50 P.M. **Demonstration of Automated Encoding of Medical Terms**
ELEMER R. GABRIELI, M.D., Buffalo
CARL V. COTRONEO, B.A., Buffalo
Senior Programmer, PRAKTICE Medical Data Center
DAVID J. SPETH, B.A., Buffalo
Programmer, PRAKTICE Medical Data Center

2:10 P.M. **Computerization of the Office Records in the Cardiologist's Practice**
ELEMER R. GABRIELI, M.D., Buffalo
JEANNE A. SAUMBY, R.R.A., Buffalo
Research Associate, PRAKTICE Medical Data Center

2:40 P.M. **The Benefits of a Cardiologist in a Computerized Office Practice**
WALTER T. ZIMDAHL, M.D., Buffalo
Associate Professor of Medicine, State University of New York at Buffalo; Attending Physician, Buffalo General Hospital

3:00 P.M. **Coffee Break to View Exhibits**

3:15 P.M. **Clinical Aspects of a Computer-Based Medical Knowledge Bank**
DAVID C. DEAN, M.D., Buffalo
Clinical Associate Professor of Medicine, State University of New York at Buffalo; Chief, Cardiopulmonary Laboratory, Veterans Administration Hospital

3:30 P.M. **Demonstration of Computer-Supported Office Practice and General Discussion**

GENERAL SESSION
THE ALBION O. BERNSTEIN, M.D. AWARD LECTURE:

Producing Monoclonal Homogeneous Antibodies by the Hybridoma Technique

GEORGES KOHLER, PH.D., Switzerland, Basel Institute for Immunology in Switzerland

Dr. Kohler, the recipient of the Albion O. Bernstein Award for 1980, will present to the Assembly an interesting account of his recent research, as described in the above title.

4:30 P.M.-5:30 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 1 Hour, Category 1; AAFP, 1 Hour, Personal Interest

SUNDAY, JUNE 28, 1981

Pediatrics
School Health

9:00 A.M.-1:00 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 4 Hours, Category 1; AAFP, 4 Hours, Prescribed

THE EDUCATION OF CHILDREN WITH HANDICAPS (P.L.94-142)

9:00 A.M. Introduction of Speakers
GEORGE STURTZ, M.D., F.A.A.P., Watertown
Chairman, Section on Pediatrics, Medical Society of the State of New York; Clinical Associate Professor of Pediatrics, Upstate Medical Center; Attending Pediatrician, Good Samaritan Hospital

MARTIN C. USHKOW, M.D., F.A.A.P., Syracuse, *Moderator*
Chairman, Section on School Health, Medical Society of the State of New York; Clinical Assistant Professor of Pediatrics, Upstate Medical Center; Medical Director, Syracuse City School District

Objective: To inform those physicians who care for handicapped children how they may share responsibilities with the schools in the education and special requirements of handicapped children

Executive Sessions

9:15 A.M. An Overview of the Function of the Committee on the Handicapped
STANLEY F. NOVAK, M.D., F.A.A.P., Rochester
Clinical Assistant Professor of Pediatrics, University of Rochester
CHRISTINE BURNS, M.ED., Rochester
Instructor of Pediatrics, University of Rochester

9:45 A.M. The Role of the Physician on the Committee on the Handicapped
LAWRENCE T. TAFT, M.D., F.A.A.P., Piscataway, New Jersey
Professor and Chairman, Department of Pediatrics, Rutgers Medical School

10:15 A.M. Related Services, Physical and/or Occupational Therapy
CYNTHIA MICHAELS, O.T., Syracuse
Occupational Therapist, Syracuse City School District

10:45 A.M. Coffee Break to View Exhibits

11:00 A.M. New York State Mandates and P. L. 94-142
MR. JAMES VIOLA, Albany
Bureau of Program Development, State Education Department, University of the State of New York

12:00 Noon Panel Discussion
PROGRAM PARTICIPANTS AND AUDIENCE

Allergy and Immunology

8:30 A.M.—12:30 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 4 Hours, Category 1; AAFP, 4 Hours, Prescribed

ALLERGY and IMMUNOLOGY: A NEW LOOK FOR THE 1980s

ARLENE T. SCHNEIDER, M.D., Brooklyn, *Moderator*
Associate Director, Department of Allergy and Immunology, Long Island College Hospital; Clinical Assistant Professor, State University of New York, Downstate Medical Center

Objective: This program will update both the specialist and the primary care physician on the problems in allergy and immunology they are most likely to be faced with in the coming decade.

8:30 A.M. Executive Session

8:40 A.M. Urticaria: A New Look
ROBERT H. SCHWARTZ, M.D., Rochester
Professor of Pediatrics, University of Rochester School of Medicine and Dentistry; Director, Pediatric Allergy/Immunology Division, Strong Memorial Hospital, University of Rochester

9:10 A.M. Food Allergy and Additives
JOHN CONDEMI, M.D., Rochester
Professor of Medicine, University of Rochester School of Medicine and Dentistry

9:40 A.M. Insect Allergy—A Model for Immunotherapy
ROBERT E. REISMAN, M.D., Buffalo
Clinical Professor of Medicine and Pediatrics, State University of New York at Buffalo

10:10 A.M. Coffee Break to View Exhibits

10:40 A.M. Asthma Update—80s
*CECIL COLLINS-WILLIAMS, M.D., Toronto, Canada
Professor of Pediatrics, University of Toronto; Chief, Allergy Division, Hospital for Sick Children

11:10 A.M. Patients as Consumers—Problems for Physicians in the '80s
LAWRENCE T. CHIARAMONTE, M.D., Flushing and Brooklyn
Clinical Assistant Professor, State University of New York, Downstate Medical Center; Director, Department of Allergy/Immunology, The Long Island College Hospital

11:45 A.M. Panel Discussion and Questions

*GUEST SPEAKER

Neurology

9:00 A.M.–12:30 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 4 Hours, Category 1; AAFP, 4 Hours, Prescribed

LIFE-STYLES AND THEIR INTERACTION WITH NEUROLOGIC DISORDERS

David O. Marsh, M.D., Rochester, *Moderator*
Associate Professor of Neurology, University of Rochester School of Medicine and Dentistry

Objective: Physicians attending this program will be provided with an update on common neurological disorders as they are affected by life-style and vice versa.

9:00 A.M. **Executive Session**

9:05 A.M. **Life-Styles and Their Interaction with Multiple Sclerosis**
Richard A. Rudick, M.D., Rochester
Assistant Professor of Neurology, University of Rochester School of Medicine and Dentistry

9:40 A.M. **Life-Styles and Their Interaction with Victims of Head Trauma**
David Green, M.B., B.S., Albany
Clinical Professor of Neurology, Albany Medical College

10:30 A.M. **Coffee Break to View Exhibits**

10:45 A.M. **Life-Styles and Their Interaction with the Epileptic**
Richard Satran, M.D., Rochester
Professor of Neurology, University of Rochester School of Medicine and Dentistry

11:20 A.M. **Life-Styles and Their Interaction with the Alcoholic**
David O. Marsh, M.D., Rochester

12:00 Noon **Questions and Answers with Panelists**
The Above Speakers

Plastic, Reconstructive, and Maxillofacial Surgery
Orthopaedic Surgery
Physical Medicine and Rehabilitation

8:30 A.M.–1:00 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 5 Hours, CATEGORY 1; AAFP, 5 Hours, Personal Interest

COMPOUND INJURIES OF THE LOWER LIMB A MULTIDISCIPLINARY APPROACH

Avron Daniller, M.D., F.A.C.S., F.R.C.S., The Bronx, *Moderator*
Associate Professor of Plastic Surgery, Hospital of Albert Einstein College of Medicine; Director of Plastic Surgery, Bronx Municipal Hospital Center

Objective: Recent emphasis on less expensive modes of travel resulting in a resurgence of complex, compound injuries involving the lower limb. This symposium will cover traditional aspects of management and some of the latest reconstructive and microsurgical approaches. It will also cover some of the complex problems of rehabilitation once wound healing has been achieved.

Executive Sessions

8:30 A.M. **Current Concepts of Bony Management and Fixation**
P. William Haati, M.D., Rochester
Associate Clinical Professor of Orthopedics, University of Rochester School of Medicine

8:50 A.M. **Traditional Principles of Soft Tissue Management**
James G. Hoehn, M.D., Albany
Clinical Instructor of Plastic Surgery, Albany Medical College

9:30 A.M. **War-Time Experiences with Compound Injuries of the Lower Limb**
Ira Roschelle, M.D., Passaic, New Jersey

9:50 A.M. **Newer Concepts of Soft Tissue Management and Bony Coverage**
John Noonan, M.D., Albany
Assistant Attending, Albany Medical Center; Consultant, Veterans Administration Hospital

10:10 A.M. **The Microsurgical Approach to Compound Injuries of the Lower Limb**
John R. Moore, M.D., Baltimore, Maryland
Assistant Professor of Orthopedic Surgery, Johns Hopkins University

10:30 A.M. **Replantation Surgery of the Lower Limb**
William Shaw, M.D., New York City
Assistant Professor of Plastic Surgery, New York University School of Medicine

10:50 A.M. **Nerve Injuries and Their Management in Injuries of the Lower Limb**
Avron Daniller, M.D., The Bronx

11:10 A.M. **Coffee Break to View Exhibits**

A TEAM APPROACH TO THE MANAGEMENT OF COMPOUND INJURIES OF THE LOWER LIMB: CURRENT STATUS

James T. Demopulos, M.D., New York City, *Moderator*
Professor of Rehabilitation Medicine, Mount Sinai School of Medicine; Director of Departments of Rehabilitation Medicine, Beth Israel Medical Center and Hospital for Joint Diseases-Orthopaedic Institute

11:25 A.M. **Rehabilitative Management of Compound Injuries of the Lower Limb: Orthotic and Prosthetic Considerations**
Lawrence W. Friedmann, M.D., East Meadow
Professor of Rehabilitation Medicine, Stony Brook Medical Center, State University of New York; Chairman, Department of Rehabilitation Medicine, Nassau County Medical Center

12:00 Noon **Electrodiagnostic Evaluation of Peripheral Nerve Injuries of the Lower Limb**
Joseph Goodgold, M.D., New York City
Acting Chairman, Department of Rehabilitation Medicine

12:30 P.M. **Panel Discussion and Problem Cases**

Family and General Practice Psychiatry

8:30 A.M.–12:30 P.M.

CONTINUING MEDICAL EDUCATION CREDIT: AMA, PRA, 4 Hours, Category 1; AAFP, 4 Hours, Prescribed

NEW PROSPECTS FOR MENTAL HEALTH IN THE EIGHTIES

ABRAHAM P. PERLSTEIN, M.D., F.A.P.A., Lynbrook, *Moderator*
Clinical Assistant Professor of Psychiatry, State University of New York, Downstate Medical Center; Adjunct Clinical Assistant Professor of Psychiatry, Cornell Medical College

Objective: Newer methods of diagnosis and advances in pharmacotherapy of psychoses are discussed to prepare the physician for changing mental health horizons in the eighties.

Executive Sessions

8:30 A.M. **New Prospects for Mental Health in the Eighties**
MARVIN HERZ, M.D., Buffalo
Chairman and Professor of Psychiatry, State University of New York at Buffalo Medical College; Chairman, Department of Psychiatry, Erie County Medical Center
Discussant
ROBERT J. CAMPBELL, JR., M.D., New York City

9:05 A.M. **The Woman Patient and Doctor Relationship**
AUDREY BIENENSTOCK, M.D., Ontario, Canada
Assistant Professor of Psychiatry, McMaster University, College of Medicine
Discussant
JEROME SILVERMAN, M.D., New York City
HENRY SCHNEER, M.D., Lido Beach, New York

9:45 A.M. **Brain Site Specificity of the Psychotropic Medications**
RICHARD L. BORISON, M.D., Chicago, Illinois
Illinois Psychiatric Institute

10:20 A.M. **Pharmacotherapy of the Depressions**
GEORGE MOLNAR, M.D., Buffalo
Associate Professor of Psychiatry, State University of New York in Buffalo; Clinical Director, Psychiatry, Erie County Medical Center
Discussant
DUNCAN MACCRIMMON, M.D., Ontario, Canada

10:55 A.M. **Coffee Break to View Exhibits**

11:10 A.M. **Pharmacotherapy of Anxiety and Panic States**
AMERANDRA SINGH, M.D., Ontario, Canada
Director, the Fennel Program, Hamilton Psychiatric Hospital, and the Department of Psychiatry, McMaster University

11:40 A.M. **The Use of the C.A.T. Scan in the Diagnosis of Acute Intracranial Disease**
MICHAEL TENNER, M.D., Brooklyn
Professor of Clinical Radiology, State University of New York, Downstate Medical Center; Attending Radiologist, Downstate University Hospital

12:15 P.M. **Questions from the Audience**

TECHNICAL EXHIBITS

MAIN FOYER

THE TECHNICAL EXHIBITS will be located in the Main Foyer of the Niagara Falls International Convention Center. Exhibit hours are 8:00 a.m.–5:00 p.m. on Friday, June 26th, and Saturday, June 27th; and from 8:00 a.m. to 1:00 p.m. on Sunday, June 28th.

Our exhibitors look forward to the pleasure of meeting and serving members and guests of the Medical Society of the State of New York.

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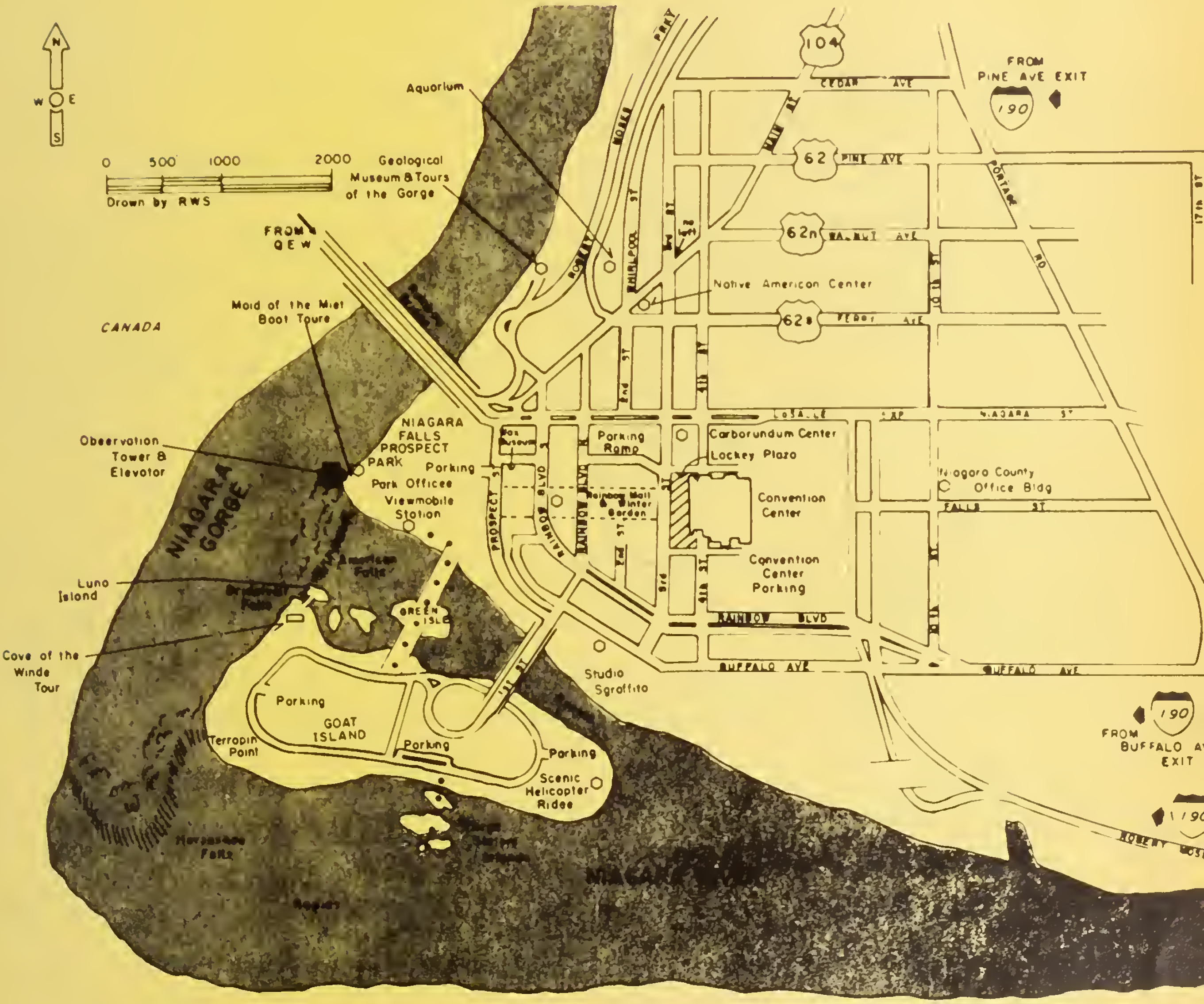
Abbott Laboratories	North Chicago, Illinois	**Booth 18**
Ames Division, Miles Labs., Inc.	Elkhart, Indiana	**Booth 5**
Ayerst Laboratories	New York City	**Booth 14**
Bio-Science Laboratories	Great Neck, New York	**Booth 15**
Bristol Laboratories	Syracuse, New York	**Booth 23**
Encyclopaedia Britannica	Chicago, Illinois	**Booth 13**
Floxite Company, Inc.	Niagara Falls, New York	**Booth 17**
Glaxo, Inc.	Ft. Lauderdale, Florida	**Booth 35**
Group Health, Inc.	New York City	**Booth 10**
Hoechst-Roussel Pharmaceuticals, Inc.	Somerville, New Jersey	**Booth 11**
Lederle Laboratories	Pearl River, New York	**Booth 8**
Medecon Office Systems, Inc.	Blauvelt, New York	**Booth 36**
Medical Liability Mutual Insurance Co. **Donald J. Fager & Associates, Inc.**	New York City	**Booth 12**
Medical Plastics Laboratory, Inc.	Gatesville, Texas	**Booth 22**
New York Telephone	New York City	**Booths 25 & 26**
Omni American	Greensboro, North Carolina	**Booth 24**
Pfizer Laboratories	New York City	**Booth 34**
Proctor & Gamble	Cincinnati, Ohio	**Booth 4**
The Purdue Frederick Company	Norwalk, Connecticut	**Booth 16**
Samuel A. Ramirez, Inc.	New York City	**Booth 9**
Renrob Coins Inc.	East Brunswick, New Jersey	**Booth 28**
Roerig	New York City	**Booth 1**
Searle Laboratories	Chicago, Illinois	**Booth 7**
Smith Kline & French Laboratories	Philadelphia, Pennsylvania	**Booth 3**
Softax-Drake & Company	Franklin, North Carolina	**Booth 29**
J. Solow & Son, Ltd.	New York City	**Booth 33**
U.S. Air Force	Randolf Air Force Base, Texas	**Booth 6**
U.S. Army Medical Department	Washington, D.C.	**Booth 27**
U.S. Navy	Buffalo, New York	**Booth 2**
USV Laboratories, Inc.	Tuckahoe, New York	**Booth 19**
The Upjohn Company	Kalamazoo, Michigan	**Booths 20 & 21**

Downtown Niagara Falls

New York



Niagara Falls International
Convention Center
4th Street
(via Buffalo Ave. or Rainbow Blvd.)

Niagara Hilton
3rd Street & The Mall

NIAGARA FALLS INTERNATIONAL CONVENTION CENTER

The Convention Center is centrally located in downtown Niagara Falls just 1800 feet from the Falls and the Rain-Bow Bridge to Canada. The CME meetings and Exhibits will be located in the Convention Center. Ample on-site outdoor parking is provided at a special daily charge for convention participants.

THE NIAGARA HILTON

Our headquarters hotel, The Niagara Hilton, a few steps away from the Convention Center and a short stroll to the Falls, offers the ultimate in comfortable hotel living. Three different restaurants await you. Sidney's with its romantic atmosphere serves breakfast, lunch and dinner and is noted for its cuisine. Captain Jack's Nautical Nightclub is ideal for a casual drink or nightly dancing. For quiet relaxing atmosphere, the Casbah Cocktail Lounge offers cocktails before and after dinner. You can enjoy the Palm Court and indoor pool with sliding glass sunroof. Ample parking is provided under covered ramp connected to hotel. Hotel guest services include indoor heated pool, exercise room, saunas, beauty salon, gift shops, post office, pharmacy, and art gallery.

HOW TO GET THERE

The International Convention Center and the Niagara Hilton are located just 25 miles and 40 minutes from Greater Buffalo International Airport which is serviced by Allegheny, Eastern, United and American Airlines. The airport bus is $5.75. Amtrak rail service is available through Buffalo about 21 miles south; taxi about $20.00–$23.00. By car, Niagara Falls is about 450 miles from New York City via the New York State Thruway.

WHAT TO SEE—HIGHLIGHTS

The Falls.

Just a short walk from the Niagara Hilton, the Falls is one of the top attractions of the world. At night the Falls are illuminated by colored lights which create a spectacular sight.

Prospect Point & Observation Tower.

At Prospect Point, an elevator in the observation tower takes visitors to the base of the Falls or high above them.

CLIP & MAIL TO:

Rooms Department Manager
Niagara Hilton, Third & Mall
Niagara Falls, New York 14303

Phone: 716-285-3361

MEDICAL SOCIETY OF THE STATE OF NEW YORK • June 26–28, 1981

Please circle rate requested:

Single: $45, $50, $55, $60, $65 (suites available on request)
Double: $62, $67, $72, $77, $82

Name______________________________
PLEASE PRINT

Address______________________________

________________________Zip code________

Name (2nd Party)________________________

Arrival Date:________ Check-in time: 2:00 p.m.

Departure Date:________ Check-out time: 12 Noon

Arriving by: ______Auto; ______Plane; ______Other

Please hold my reservation for (check one):

______6:00 p.m. arrival
______Guaranteed by first night's deposit
______Guaranteed by American Express Credit card
Card number__________
Expiration date:__________

Reservations must be received by JUNE 4, 1981. Reservations will be accepted after this date on an if-available basis. If room at requested rate is not available, one at nearest available rate will be reserved. If reservations are made by telephone, you must identify the Medical Society meeting for the special rate to apply.

Maid of the Mist.
Departing from the foot of the Observation Tower & Prospect Point, the boats pass directly in front of the American and Bridal Veil Falls, and enter into the Horseshoe Basin. Boats depart about every 15 minutes and the trip lasts one-half hour.

Goat Island.
Dividing the Niagara River into the Horseshoe and American Falls, the island provides dramatic views of the Falls.

Cave of the Winds.
Guided tour to the base of the Bridal Veil Falls.

Niagara Viewmobile.
A guided mini-train excursion of Prospect Park and Goat Island.

Winter Garden.
A tropical park in a greenhouse-like structure on Rainbow Mall near the Niagara Hilton. On display are plants of 225 different varieties including 40 ft. high palms.

Geological Museum.
Contains the geological history of the Falls covering 500 million years.

Niagara Power Project.
Located 4½ miles north of the Falls, it has displays, exhibits, motion pictures, plus an observation deck overlooking the Niagara Gorge and River.

Artpark.
A 200 acre park located 12 miles from Niagara Falls at Lewiston. It includes a theatre, and artists and craftsmen working daily from 11 a.m. to 5 p.m.

Lewiston, N.Y.
A historic village noted for its portage.

Lower Niagara Cruises.
Two hour cruises on the Niagara River from Fort Niagara.

Old Fort Niagara.
Relive nearly 300 years of history under three flags in this well-preserved Fort.

BUFFALO. Albright-Knox Art Gallery.
Housed in a beautiful neoclassical, ionic columned building, the gallery is among the top ten museums of modern art in America. On view are major paintings by deKoonig, Rothko, Pollock, Kline, Motherwell, Frankenthaler, Stella, Jasper Johns, Rauschenberg & Still. And sculptures by David Smith and David Hare.

HOTEL RESERVATIONS

Physicians must make their own hotel reservations no later than June 4, 1981 in order to take advantage of the special rates. If making hotel reservations by telephone, please mention that you are attending the Medical Society CME Assembly.

SPECIAL EVENTS

MSSNY RECEPTION & DINNER.
All physicians and their guests are welcome to attend a reception and dinner to be held at the Niagara Hilton on Saturday, June 27th. An outstanding guest speaker is scheduled to appear. The reception will start at 7:00 p.m. and dinner at 8:00 p.m. Cost: $30.00.

GOLF TOURNAMENT.
A golf tournament will be held all day Thursday, June

(continued on following page)

PRE-REGISTRATION FORM
1981 Annual CME Assembly, June 26–28
Niagara Falls International Convention Center

(please print)

Name ______________________________
(last) (first) (initial)

Address ______________________________

City & State ______________________________ Zip ____________

Member of MSSNY: Yes ________ No ________ Specialty ______________________________

Note: There is no registration fee, except for the special course in Basic Cardiac Life Support.

Thursday Golf Tournament—Green Fees & Cart: ________tickets @ $25.00. Total____________

Saturday Reception & Dinner ________tickets @ $30.00. Total____________

Friday or Saturday Special Course in Basic Cardiac Life Support.

Limited to members only. $50.00. Total____________

Total enclosed $____________

Please make checks payable to: Medical Society of the State of New York, clip and mail to Division of Advertising & Meeting Services Medical Society of the State of New York, 420 Lakeville Rd., Lake Success, New York 11042.

SPECIAL EVENTS—cont'd.

25th at the Ransom Oaks Golf Course. The cost for green fees and cart will be $25.00. Reservations are limited to 60 golfers.

SHAW FESTIVAL

The New York State Neurosurgical Society members will attend a Shaw Festival at Niagara-on-the-Lake, Ontario on Friday, June 26. The bus will depart from the Niagara Hilton at 7:15 p.m.

SPECIAL COURSES

BASIC CARDIAC LIFE SUPPORT

This course will take place on Friday and Saturday from 8:30 a.m. to 4:30 p.m., and is limited to 24 physician members of MSSNY. The registration fee is $50.00.

SPECIAL SESSION

1980 ALBION O. BERNSTEIN, M.D. AWARD.

On Saturday, June 27th, the award will be presented by Ralph M. Schwartz, M.D., President, Medical Society of the State of New York, to Georges Kohler, Ph.D. of the Basel Institute for Immunology in Switzerland for his outstanding achievement in immunology. Dr. Kohler will address the special session.

Your identification badge and tickets will be held at the MSSNY Registration Desk located in the Niagara Falls Convention Center.

INTERMISSIONS

There will be morning and afternoon intermissions for coffe and to allow time to visit the exhibits.

MEETING HOURS

Friday, June 26:
8:00 a.m.–12 Noon
1:00 p.m. & 2:00 p.m.–5:00 p.m.

Saturday, June 27:
8:00 a.m.–12 Noon
1:00 p.m.–4:00 p.m.
4:30 p.m.–5:30 p.m.

Sunday, June 28:
8:30 a.m.–1:00 p.m.

●

All Meetings & Exhibits will close at 1:00 p.m. on Sunday.

The Niagara's Hilton beautiful Palm Court heated pool

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MATERNAL AND CHILD HEALTH AND FAMILY PLANNING	June 10–27, 1981

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Dorothy R. Gilbert, CNM, MPH
Educational Associate

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Telephone: (212)870-3309

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FOR SALE, VERY ATTRACTIVE PARTNERSHIP (2 man) practice, general and internal medicine. Established 28 years, south shore eastern Nassau County. Grosses 6 figures annually. Partners will retire upon sale of practice. Also available for purchase is office building (10,000 sq. ft.) where practice is located. Reply Dept. 162, c/o NYSJM.

24 YEAR ESTABLISHED FAMILY PRACTICE, home-office combination, separate entrances, 2 story building, office fully equipped, own parking lot, retiring, will introduce, Syracuse, N. Y. Reply Dept. 166, c/o NYSJM.

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PRACTICE OPPORTUNITY excellent opening for one or two physicians inte
ested in primary care to assume established practice in fully equipped office i
ten thousand population community with fine hospital and less than one hou
from medical college teaching center. Reply Dept. 170, c/o NYSJM.

GROWING GENERAL PRACTICE for sale in a country side community 60 mile
from New York City. Excellent office location, fully furnished and equippec
Close to two hospitals. Lease financing can be arranged. Reply Dept. 178, c/
NYSJM.

FOR SALE: OPHTHALMOLOGY PRACTICE, Brooklyn. Fine area, retirin
Reply Dept. 174, c/o NYSJM.

FOR SALE—ROSEDALE, QUEENS. Active family practice and 6 room bric
building, furnished and fully equipped. Excellent location, 2 blocks from R.
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PEDIATRIC AND ALLERGY PRACTICE available this June–July, one partn
retiring, other school physician. Good hospital facilities. Will welcome an
introduce well trained pediatrician. Purchase office equipment at very fair pric
terms to pay out of practice, only contract necessary. R. E. Vandeveer an
J. S. Hoes, MD's., 414 N. Washington St., Rome, N.Y. 13440.

POSITIONS WANTED

GENERAL SURGEON: 32 year old, university trained, board certified gener
surgeon with vascular experience seeks opportunity in general surgical or mu
tispecialty group practice in New York metropolitan area. Reply Dept. 155, c
NYSJM.

RADIOLOGIST, A.B.R. WITH GOOD BACKGROUND in general radiology ar
special expertise in nuclear medicine, arteriography and ultrasonography desir
to join a group within 60 mile radius of New York City. Reply Dept. 161, c
NYSJM.

CARDIOLOGIST: AGE 29, BOARD CERTIFIED Internal Medicine, Board
igible Cardiology; available July, 1981. Trained in all areas of non-invasi
cardiology, Swan-Ganz, temporary pacemakers. Seeks association or gro
practice in suburban New York City. Reply Dept. 167, c/o NYSJM.

PHYSICIAN ASSISTANT: I CAN LIGHTEN your load and increase yo
practice without compromising deliverance of quality primary care medici
4 years experience; Board Certified, N.Y. licensed; Seeking position in Fami
Medicine, solo or group practice; Contact Robert H. Smith, 11 Bobbie D
Rochester, N.Y. 14606, or call (716) 426-0118.

RETIRED PATHOLOGIST wants part time work. Reply Dept. 164, c
NYSJM.

LOCUM TENENS WORK WANTED. The more you know about choices, the eas
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BOARD ELIGIBLE ANESTHESIOLOGIST, Univ. trained, 20 years clinical An
experience and recent PGY4 seeks busy fee-for-service practice. Available wi
short notice. NY State lic. All locations considered. Reply Dept. 176, c
NYSJM.

EQUIPMENT

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examination and treatment tables, instrument cabinet and stool. Extra exa
ination table, portable Sanborn EKG Model 300 (reconditioned 1980). Quali
desk, Yorktown copier, steel files, x-ray storage files, etc. Evenings (516) 62
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HYSICIAN, EMERGENCY MEDICINE—Newly established 654 acute and long term bed, medical school affiliated, multi-hospital system in New York's Southern Tier is recruiting full time physician, Emergency Medicine. Hospital actively seeking Emergency Medicine Residency. Physician will have teaching responsibility in present residency program. Must have three years post graduate training and Emergency Department experience. Salary negotiable. Competitive benefit program. An immediate need. Send curriculum vitae to J. R. Tallam, M.D., Director Emergency Medicine, Wilson Memorial Hospital, 33-57 Harrison Street, Johnson City, New York 13790. An Equal Opportunity Employer. Phone (607) 773-6371.

MERGENCY MEDICINE OPPORTUNITIES AVAILABLE, both part and full ime, throughout New York State. Excellent income, paid professional liability nsurance. Flexible schedules without on-call involvement. For details call James Thomas collect at (212) 599-0060 or forward credentials in confidence to 230 Park Avenue, Suite 303, New York, N.Y. 10017.

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AMILY PRACTITIONER—seeks Associate, Westchester County, New York. All phases of Family Practice including Obstetrics. No hospital surgery. Salary open. Send resume Dept. 177, c/o NYSJM.

MEDIATE OPENING FOR A BOARD eligible or Board Certified Physician-Anesthetist to work in a 300 bed hospital located in the Northeast with 3 Physician-Anesthetists and 3 CRNA's. No OB anesthesia is involved. Salary negotiable. Fringe benefits included. If interested, please contact: John H. Hobika, M.D., Dept. of Anesthesiology, St. Elizabeth's Hospital, 2209 Genesee Street, Utica, N. Y. 13501.

AMILY PRACTITIONER/INTERNIST—well established upstate group has need for you because of increased patient load. Full time office/hospital practice. For more details send C.V. to: John F. Spring, M.D., Box 156, Southview Station, Binghamton, N.Y. 13903.

ALIFORNIA: ANESTHESIOLOGIST WANTED in Northern California fee-for-service practice located in Marysville. Area is within easy driving distance of Lake Tahoe, ski and recreation areas, Sacramento and the San Francisco Bay Area. Great year-round climate with still reasonably priced homes. Modern, progressive, well-equipped hospital with growing medical staff. Attractive relocation incentive. Contact Judy Neal, 440 Grand Avenue, Suite 500, Oakland, CA 94610, (415) 832-6400.

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Emergency Medicine Positions—available with emergency physician group in PA, NY, NJ, VA, WVA, MD and throughout New England, the Southeast and the Midwest, including all suburban, rural and metropolitan areas. Fee-for-service with minimum guarantee provided. Malpractice paid. Practice credits toward board certification. Physician department directors also desired. Please send resume to: NEEMA Emergency Medical, Suite 400, 399 Market Street, Phila., PA 19106 or phone 215-925-3511 in PA, or 800-523-0776 outside PA.

PHYSICIANS WANTED—CONT'D

INTERNISTS—THE ACTIVE EMERGENCY department of this large teaching hospital has positions available for internists starting July 1981. 50,000 adult patients are seen annually, of which approximately one-fourth are admitted. Responsibilities include primary patient care as well as training house staff and attending conferences and rounds of the Department of Medicine. Position carries appointment to the Department of Medicine at the Albert Einstein College of Medicine. Salaries and benefits competitive for NY area. Equal Opportunity Employer M/F. Send CV to: Anthony Mayer, M.D., Director, Medical Services, Montefiore Hospital and Medical Center, 111 E 210th St., Bronx, N.Y. 10467.

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TAX ATTORNEY & PENSION PLAN SPECIALIST—Former IRS Pension Plan Specialist and Revenue Agent—Professional Incorporation, Pension and Profit Sharing Plan annual administration including initial IRS qualification, annual filings, actuarial certification and employee statements of participation—No Insurance Required—References upon request—Jack Wachstock, 299 Broadway, New York, N.Y. (212) 349-2248.

ATTORNEY SPECIALIZING IN MEDICAL-LEGAL problems of a regulatory nature and legal aspects of incorporation. Ralph Hochstein, 747 Third Ave., N.Y.C. 10017; (212) 752-3700.

SUMMER CME CRUISE/CONFERENCES ON LEGAL-MEDICAL issues—Caribbean cruise departs July 29, 1981 visiting five of the loveliest tropical islands. Mediterranean cruise departs August 22, 1981 visiting Italy, Greece, Egypt, Israel, Turkey and Yugoslavia. Seminars and workshops conducted at sea and led by distinguished professors. Approved for 23 CME Credits—Category 1. Excellent Fly/Cruise group rates on finest ships. Both conferences are designed to conform with the 1976 Tax Reform Act. Space limited. For color brochure and information contact: International Conferences, 189 Lodge Avenue, Huntington Station, New York 11746. Phone (516) 549-0869.

THE HOSPITAL FOR JOINT DISEASES Orthopaedic Institute and The Page and William Black Post Graduate School of Medicine of The Mount Sinai School of Medicine (CUNY) announce a Symposium—"Diagnostic and Surgical Arthroscopy: State of the Art 1981". Program Chairman—J. Serge Parisien, M.D., New York, NY. Guest Lecturers—S. Ward Casscells, M.D., Wilmington, DE; Kenneth E. DeHaven, M.D., Rochester, NY; Lanny L. Johnson, M.D., East Lansing, MI; John B. McGinty, M.D., Newton Lower Falls, MA; Nils Oretorp, M.D., Jonköping, Sweden. Saturday, May 9, 1981—8 a.m.–4 p.m.—Willard Loeb Auditorium—Hospital for Joint Diseases Orthopaedic Institute. For information call Mrs. Arlene Orofino (212) 561-2498.

Research Project in

The Treatment of Trigeminal Neuralgia With Chinese Acupuncture Techniques

Any doctor who can refer trigeminal neuralgia patients for whom medications and surgery have brought no significant improvement, please contact:

Ling Sun Chu, M.D.
107 East 73rd St., New York, N.Y. 10021
(212) 472-3000

Acupuncture treatments will be free of charge to the patient if patient brings letter from referring physician that: 1) Contains patient's medical records. 2) Stating that: a) Referring physician agrees to participate in project, by evaluating the effects of the treatment on patient. b) Patient will remain under referring physician's care. Call or write for further details.

MISCELLANEOUS—CONT'D

NEED WRITING OR EDITING HELP? Whatever your problems, we can he you with researching, organizing, writing, rewriting or editing of articles or bool whether popular or technical. Extensive experience in medical, computers, oth technical fields. Write or call Performance & Communication Associates, 8 West End Avenue, Suite 144, New York, NY 10025. (212) 222-3371.

PRACTICES WANTED

OPHTHALMOLOGIST, BOARD CERTIFIED desires to purchase practice the New York City or suburban area. Confidence Maintained. Please conta Dept. 168, c/o NYSJM.

DERMATOLOGIST desires to join multispecialty group or practice partnersh Reply Dept. 172, c/o NYSJM.

ALLERGIST, BOARD CERTIFIED, SOLO practitioner, seeks practice purcha or association, or similar arrangement, in New York metropolitan area, to expa my practice activity. All responses seriously considered and kept strictly co fidential. Reply Dept. 175, c/o NYSJM.

REAL ESTATE FOR SALE OR RENT

MANHATTAN, STATEN ISLAND OFFICE SPACE available to share re Manhattan: Financial District on Broadway with subway entrance in buildi Near Beekman Hospital and Pace College. Staten Island: Victory Blvd. n Clove Lake Park. Both areas: Residential booms, top quality buildings, r offices, successful established practitioners will introduce (212) 448-4488.

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WESTHAMPTON BEACH, LONG ISLAND-PRIME AREA, treed acre, re ated colonial, designer kitchen, formal dining room, 2 fireplaces, 8 bedrooms baths, income producing separate apartment, 2 car garage with apartment, Gu pool, room tennis court, assumable mortgages $275,000. (516) 288-2053.

SARATOGA SPRINGS, N.Y., Lake front lot. Large wooded lot with 273 foot frontage on pristine mountain lake just 20 minutes from Saratoga Springs. T privacy yet convenient to Performing Arts, Race Track, etc. $19,500. Asl Rey Wells, days (518) 785-4141, evenings (518) 899-4844.

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what goes on IN CONTINUING MEDICAL EDUCATION

NEW YORK STATE **MAY 1981**

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Please send information to the Editor, WHAT GOES ON,
420 Lakeville Road, Lake Success, New York 11042
Telephone 516-488-6100.

Compiled by the Division of Scientific Activities
George J. Lawrence, Jr., M.D., Director
Mrs. Elizabeth H. Daepp, Editor
Philip Keating, Business Manager

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NEW YORK CITY

The Page and William Black Postgraduate School of Medicine of the Mount Sinai School of Medicine (CUNY)

* The Mount Sinai Medical Center
One Gustave L. Levy Place
May 1–2, 9:00 a.m.–5:00 p.m., Friday and Saturday
INDIRECT OPHTHALMOSCOPY AND PERIPHERAL RETINAL DISORDERS
Keith M. Zinn, M.D.
FEE: $100. CREDIT: AMA Cat. 1 (10½ hrs.)
May 5–12, Tuesdays, 6:00–9:30 p.m.
CARDIOPULMONARY RESUSCITATION FOR HEALTH PROFESSIONALS
Douglas DiStefano, M.D., Nicholas Galli, Ph.D.
FEE: TO BE ANNOUNCED CREDIT: AMA Cat. 1 (7 hrs.)
May 6, 9:00 a.m.–4:00 p.m., Wednesday
May 8, 9:00 a.m.–3:00 p.m., Friday
NEUROMUSCULAR ELECTRODIAGNOSIS
Beatrice Kaplan, M.D.
FEE: $150. CREDIT: AMA Cat. 1 (16 hrs.)
May 7, 9:00 a.m.–5:00 p.m., Thursday
May 9, 9:00 a.m.–1:00 p.m., Saturday
GASTROINTESTINAL RADIOLOGY
Richard H. Marshak, M.D., Jack Rabinowitz, M.D.
FEE: $250. CREDIT: AMA Cat. 1 (17 hrs.)
$100. Residents
May 9, 9:00 a.m.–5:00 p.m., Saturday
RECENT ADVANCES IN ANORECTAL SURGERY
Chanyul Oh, M.D.
FEE: $100. including lunch CREDIT: AMA Cat. 1 (6½ hrs.)
May 26–27, 8:30 a.m.–5:00 p.m., Tuesday
CONTROVERSIES IN HEAD AND NECK SURGERY
Frank E. Lucente, M.D.
FEE: $225. CREDIT: AMA Cat. 1 (14 hrs.)
$125. House Staff
For further information contact The Mount Sinai Medical Center. One Gustave L. Levy Place, New York 10029. Tel: 212/650-6737.

Albert Einstein College of Medicine of Yeshiva University cosponsored by the National Cancer Institute (NSABP Cancer Control Network) and the American Cancer Society

1300 Morris Park Avenue
Bronx
* Van Etten Hospital, Room 523
4:00–5:30 p.m.
May 1
EARLY DIAGNOSIS OF BRAIN TUMORS
S. L. Weitz, M.D.
May 15
OBSTRUCTIVE JAUNDICE: PREOPERATIVE EVALUATION
S. Lan, M.D.
CREDIT: AMA & AAFP Cat. 1
For further information contact Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx 10461. Tel: 212/430-2000.

State University of New York Downstate

MEDICAL CENTER
450 Clarkson Avenue
Brooklyn
May 4, 4:00–5:00 p.m.
VISITING PROFESSOR PROGRAM
ANESTHESIA CIRCUITRY
E. S. Siker, M.D.
May 5, 5:00–6:00 p.m.
INHALATION VERSUS BALANCED ANESTHESIA
E. S. Siker, M.D.
* Alumni Memorial Hall, 2nd Floor
Tuesday, 5:00–6:00 p.m., (When Visiting Professor is not scheduled)
ANESTHESIA GRAND ROUNDS
For further information contact Abraham I. Raskob, M.D., Clinical Associate Professor, Program Coordinator, Department of Anesthesiology, State University of New York Downstate Medical Center, 450 Clarkson Avenue, Brooklyn 11203. Tel: 212/735-3344.

The New York Academy of Sciences

2 East 63rd Street
* The Barbizon-Plaza Hotel
May 4–6
SUDDEN CORONARY DEATH
Henry M. Greenberg, M.D., Edward Dwyer, Jr., M.D.
May 13–15
MECHANISMS OF LUNG MICROVASCULAR INJURY
A. B. Malik, M.D., N. C. Staub, M.D.
For further information contact Conference Department, The New York Academy of Sciences, 2 East 63rd Street, New York 10021. Tel: 212/838-0230.

Westchester Square Hospital in collaboration with Albert Einstein College of Medicine

1625 St. Peters Avenue
Bronx
* Conference Room
2475 St. Raymond Avenue
Bronx
May 6, 4:00–5:30 p.m., Wednesday
THE ROLE OF SURGERY, RADIOTHERAPY AND CHEMOTHERAPY FOR CARCINOMA OF THE BREAST
Steve Vogl, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)
May 20, 4:00–5:30 p.m., Wednesday
THERAPY OF THE INSULIN-DEPENDENT DIABETIC
Harry Shamoon, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)

Jewish Hospital and Medical Center of Brooklyn in Association with the American Cancer Society, New York Division, Brooklyn Unit, Office of CME, (SUNY) Downstate

555 Prospect Place
Brooklyn
* B-51 Conference Room, Basement, Leviton Bldg.
3:30–4:30 p.m.
May 7
RECENT TRENDS IN THE SURGICAL TREATMENT OF ORAL CANCER
Ronald H. Spiro, M.D.
May 14
PSYCHOLOGICAL FACTORS IN CANCER MANAGEMENT
Rene Mastrovito, M.D.
May 21
PRENATAL DIAGNOSIS OF HEMATOLOGIC DISEASES
Blanche P. Alter, M.D.
NO FEE CREDIT: AMA Cat. 1 & AAFP
For further information contact Jewish Hospital & Medical Center of Brooklyn, 555 Prospect Place, Brooklyn 11238. Tel: 212/240-1211/1212, Div. of Hematology.

Doctors Hospital

170 East End Avenue
May 7, 4:15 p.m., Thursday
CLINICAL USE OF CORTICOSTEROIDS
Nicholas P. Christy, M.D.

May 9, Saturday
THYROID DISORDERS
Horace W. Whiteley, Jr., M.D.
NO FEE CREDIT: AMA Cat. 1 (1½ hrs.)
For further information contact Clifford L. Spingarn, M.D., Chairman, Committee on Continuing Medical Education, Doctors Hospital, 170 East End Avenue, New York 10028. Tel: 212/535-3000 ext. 118.

New York University

POST-GRADUATE MEDICAL SCHOOL
550 First Avenue
May 8-9, Friday and Saturday
REVIEW OF BASIC SCIENCES IN UROLOGY
For further information contact New York University, Post-Graduate Medical School, 550 First Avenue, New York 10016.

New York University Post-Graduate Medical School

550 First Avenue
* Schwartz Lecture Hall, Classroom F
401 East 30th Street
May 9, 9:00 a.m.–1:15 p.m., Saturday
WHAT THE PHYSICIAN CAN LEARN FROM FORENSIC MEDICINE
Michael M. Baden, M.D.
FEE: $35. CREDIT: AMA Cat. 1 (4 hrs.)
For further information contact Registration Office, NYU Post-Graduate Medical School, 550 First Avenue, New York 10016. Tel: 212/679-8745.

New York University Post-Graduate Medical School

550 First Avenue
* Alumni Hall
May 18–22, Monday to Friday
NEUROPATHOLOGY
AN IN-DEPTH REVIEW OF SELECTED TOPICS
FEE: $485. CREDIT: AMA Cat. 1 (30½ hrs.)
For further information contact Registration Office, NYU Post-Graduate Medical School, 550 First Avenue, New York 10016. Tel: 212/340-5295.

The American Academy of Psychoanalysis

30 East 40th Street
* The Houstonian
Houston, Texas
May 7–10
PSYCHOANALYSIS AND PSYCHIATRY
25TH ANNUAL MEETING OF THE AMERICAN ACADEMY OF PSYCHOANALYSIS
FEE: $100. non-members CREDIT: AMA Cat. 1 (20 hrs.)
$25. Students and Residents
For further information contact Ian Alger, M.D., American Academy of Psychoanalysis, 30 East 40th Street, Suite 608, New York 10017. Tel: 212/679-4105.

Seminars & Symposia, Inc.

1290 Avenue of the Americas
May 12–23
SEMINAR/WORKSHOP 1981
OBSTETRICS & GYNECOLOGY FOR THE FAMILY PRACTITIONER
David W. Harris, M.D.
CREDIT: AMA Cat. 1 (24 hrs.)
May 18–31
CURRENT CLINICAL PROBLEMS WITH EMPHASIS ON ONCOLOGY
Juden Reed, M.D.
CREDIT: AMA Cat. 1 (28 hrs.)
For further information contact Nathaniel Finby, M.D., Seminars & Symposia, Inc., 1290 Avenue of the Americas, New York 10019. Tel: 212/4789-7790.

Beth Israel Medical Center and the American Cancer Society/New York City Division cosponsored by The Page & William Black Post-Graduate School of the Mount Sinai School of Medicine, CUNY

* Hospital for Joint Diseases/Orthopaedic Institute
301 East 17th Street
May 13, 8:30 a.m.–4:00 p.m., Wednesday
RECENT ADVANCES IN DIAGNOSTIC MODALITIES AND THERAPY FOR BREAST CANCER
Louis Venet
NO FEE CREDIT: AMA Cat. 1 (6 hrs.)
For further information contact Beth Israel Medical Center, 10 Nathan D. Perlman Place, New York 10003. Tel: 212/420-2000.

Saint Mary's Hospital of Brooklyn

170 Buffalo Avenue
Brooklyn
May 13, 8:00 a.m.–9:00 a.m., Wednesday
RADIONUCLIDE IMAGING—MYOCARDIAL INFARCTION
Mark A. Seldon, M.D.
NO FEE CREDIT: AMA Cat. 1
May 28, 12 noon–1:00 p.m., Thursday
PROBLEMS IN AMENORRHEA
Philip Henneman, M.D.
NO FEE CREDIT: AMA Cat. 1
For further information contact St. Mary's Hospital, Division of The Catholic Medical Center, Department of Medicine, 170 Buffalo Avenue, Brooklyn 11213. Tel: 212/774-3600 ext. 2044 or 2045.

The New York State Society of Anesthesiologists, Inc.

30 East 42nd Street
* Westchester Academy of Medicine
Purchase
May 21
ANESTHESIOLOGY UPDATE
CREDIT: AMA Cat. 1 (4½ hrs.)
* Montefiore Hospital and Medical Center
111 East 210th Street
Bronx
May 21
PROGRAM OF DISTRICT 3 FOR THE YEAR 1981
RESPIRATORY FAILURE: CURRENT PROBLEMS AND OPPORTUNITIES
Henrich H. Bendixen, M.D.

The New York State Society of Anesthesiologists, Inc. sponsored by Montefiore Hospital and Medical Center Albert Einstein College of Medicine

* Barbizon Plaza Hotel
106 Central Park South
May 31–June 5
18TH ANNUAL BASIC SCIENCE SYMPOSIUM ON ANESTHESIOLOGY AND CRITICAL CARE MEDICINE
CREDIT: AMA Cat. 1 (38 hrs.)
For further information contact The New York State Society of Anesthesiologists, Inc., 30 East 42nd Street, Suite 1501, New York 10017. Tel: 212/867-7140.

College of Physicians & Surgeons of Columbia University

630 West 168th Street
May 22–23
CURRENT CONCEPTS IN LIVER PATHOLOGY
Drs. Avram Cooperman, Peter Green, Kamal Ishak, Jay Lefkowitch, Roderick MacSween, Jans Popper, John Price, Fenton Schaffner, Peter Scheuer, Hyman Zimmerman.
May 26–27
EXPERIMENTAL THERAPEUTICS OF MOVEMENT DISORDERS
Stanley Fahn, M.D. and Staff
FEE: $200. CREDIT: AMA Cat. 1 (14 hrs.)
$100. Residents
For further information contact Dr. Elizabeth C. Gerst, Continuing Education Center, 630 West 168th Street, New York 10032. Tel: 212/694-3682.

QUEENS COUNTY

Astoria General Hospital

25-10 30th Avenue
Long Island City
Conference Room
May 2, 9:00–11:00 a.m., Saturday
EMOTIONAL STRESS AND MAJOR CARDIOVASCULAR DISEASE
Marcel Sufrin, M.D.
CREDIT: AMA Cat. 1
For further information contact Astoria General Hospital, 25-10 30th Avenue, Long Island City, 11102.

The Jamaica Hospital

89th Avenue & Van Wyck Expressway
Jamaica
* Community Room
8:30–9:30 a.m.
May 4
CARDIOVASCULAR MANIFESTATIONS OF HYPERSOMNIA SLEEP APNEA
Bernard Burack, M.D.
May 18
ELECTROCARDIOGRAMS-UPDATE
Jacob Hirsch, M.D.
CARDIOLOGY ROUNDS are conducted on alternate Mondays, from 8:30–9:30 a.m., in the Community Room—Clement Weinstein, M.D. and Staff
ECG & CLINICAL CARDIOLOGY CONFERENCES are held on alternate Thursdays, from Noon–1:00 p.m.—Francis E. Raia, M.D.
PRIMARY CARE CONFERENCES
* Community Room
11:45–12:45 Monday
DERMATOLOGY
May 11
PEDIATRIC DERMATOLOGY
David L. Cohen, M.D.
NUTRITION
* Community Room
11:45–12:45 Monday
May 18
NUTRITION & THE CANCER PATIENT
Gerald W. Deas, M.D.
OPHTHALMOLOGY
May 4
OCULAR INJURY & THE PRACTICING PHYSICIAN
Jerome A. Jarvis, M.D.
ENDOCRINOLOGY & METABOLISM
* Community Room
10:45–11:45 a.m., Tuesday
May 26
NEURO-ENDOCRINE TUMORS & ECTOPIC HORMONE PRODUCTION
Howard D. Kolodny, M.D.
ENDOCRINOLOGY ROUNDS are conducted monthly, from Noon–1:00 p.m., in the Community Room, on Tuesdays—Howard D. Kolodny, M.D. and Staff
HEMATOLOGY
* Community Room
10:45–11:45 a.m., Tuesdays
May 19
CURRENT THERAPY OF ACUTE LEUKEMIA
Kanti R. Rai, M.D.
HEMATOLOGY GRAND ROUNDS are conducted weekly, on Fridays, from 1:00–2:30 p.m., in the First Floor Conference Room
HEMATOLOGY CONFERENCES are conducted monthly, from noon–1:00 p.m., in the Community Room, on Tuesdays—Malcolm E. Levine, M.D. and Staff
NEPHROLOGY
* Community Room
10:45–11:45 a.m., Tuesdays
May 12
NEW INSIGHTS IN ACUTE RENAL FAILURE
Barry Wilkes, M.D.
The following *NEPHROLOGY LECTURE* will be held on Wednesday, from 9:00–10:30 a.m., in the Trump Pavilion: *MEDICAL GRAND ROUNDS—PROGRESS IN MEDICINE*
May 13
ACID BASE BALANCE FOR CLINICIANS
Marvin F. Levitt, M.D.
NEPHROLOGY ROUNDS are conducted monthly, from noon–1:00 p.m., in the Community Room, on Tuesdays—Amarjit Singh, M.D., Emmanuel B. Masih, M.D., and Staff
NEUROLOGY
* Community Room
10:45–11:45 a.m., Tuesdays
May 5
IDIOPATHIC AND SYMPTOMATIC HYPOTENSION
Stuart Snider, M.D.
The following *NEUROLOGY LECTURES* are held on Wednesdays, from 9:00–10:30 a.m., in the Trump Pavilion: *MEDICAL GRAND ROUNDS—PROGRESS IN MEDICINE*
May 20
RECENT ADVANCES IN THE DIAGNOSIS & TREATMENT OF EPILEPSY
Eli S. Goldensohn, M.D.
NEUROLOGY ROUNDS are conducted monthly, from noon–1:00 p.m., in the Community Room, on Tuesdays—Alfred C. Bannerman, M.D.
TUESDAYS, the second Tuesday of the month, *INFECTIOUS DISEASES ROUNDS* are conducted from 3:30–4:30 p.m., in the Community Room—Robert H. Lapin, M.D.
MEDICAL GRAND ROUNDS AND PROGRESS IN MEDICINE
* Trump Pavilion
9:00–10:30 a.m., Wednesdays
May 6
CONTROVERSY IN INFLAMMATORY BOWEL DISEASE
Daniel H. Present, M.D.
May 13
ACID BASE BALANCE FOR CLINICIANS
Marvin F. Levitt, M.D.
May 20
RECENT ADVANCES IN DIAGNOSIS & TREATMENT OF EPILEPSY
Eli S. Goldensohn, M.D.
May 27
UPDATE ON INFECTIOUS DISEASES
Richard Quintiliani, M.D.
WEDNESDAYS, 1:00–2:00 p.m., *TUMOR BOARD*—Fourth Wednesday—*CLINICAL PATHOLOGY CONFERENCE*, Assembly Room
INFECTIOUS DISEASES
* Community Room
10:45–11:45 a.m., Thursdays

May 21
SEPSIS OF UNKNOWN ORIGIN
Robert H. Lapin, M.D.
The following *INFECTIOUS DISEASES LECTURE* will be held on Wednesday, from 9:00–10:30 a.m., in the Trump Pavilion:
MEDICAL GRAND ROUNDS—PROGRESS IN MEDICINE
May 27
UPDATE ON INFECTIOUS DISEASES
Richard Quintiliani, M.D.
INFECTIOUS DISEASES ROUNDS are conducted on the Second Tuesday, from 3:30—4:30 p.m., in the Community Room—Robert H. Lapin, M.D.
ONCOLOGY
• Community Room
10:45–11:45 a.m., Thursday
May 7
A CHEMOTHERAPY APPROACH TO REGIONAL MALIGNANT DISEASE
James Speuer, M.D.
PULMONARY DISEASES
• Community Room
10:45–11:45 a.m., Thursday
May 14
THE ROLE OF RIGID BRONCHOSCOPY, MEDIASTINOSCOPY & OPEN LUNG BIOPSY IN THE DIAGNOSIS OF PULMONARY DISEASES
Sha Moallem, M.D.
PULMONARY DISEASES ROUNDS are conducted monthly, from Noon–1:00 p.m., in the Community Room, on Thursdays—Gerald M. Greenberg, M.D. and Staff
RHEUMATOLOGY
• Community Room
10:45–11:45 a.m., Thursday
May 28
MANAGEMENT OF RHEUMATOID ARTHRITIS
J. Robert Polk, M.D.
RHEUMATOLOGY ROUNDS are conducted monthly, from Noon–1:00 p.m., in the Community Room, on Thursdays—William A. O'Connell, M.D. and Staff
ALTERNATE THURSDAYS, noon–1:00 p.m., *ECG & CLINICAL CARDIOLOGY CONFERENCES—Francis E. Raia, M.D.*
MEDICAL GASTROENTEROLOGY
• Community Room
10:45–11:45 a.m., Friday
May 8
UPDATE: ETIOLOGY, DIAGNOSIS & MANAGEMENT OF CA OF STOMACH
Charles Lightdale, M.D.
The following *GASTROENTEROLOGY LECTURE* is held on Wednesday, from 9:00–10:30 a.m., in the Trump Pavilion:
MEDICAL GRAND ROUNDS—PROGRESS IN MEDICINE
May 6
CONTROVERSY IN INFLAMMATORY BOWEL DISEASE
Daniel H. Present, M.D.
MEDICAL GASTROENTEROLOGY ROUNDS are conducted on alternate Fridays, in the Community Room, 10:45–11:45 a.m.—Robert T. Todaro, M.D. and Staff
FRIDAYS, Noon–1:00 pm., Assembly Room *RADIOLOGY CONFERENCES*, Emerick Demeter, M.D. and Staff, alternating with *MEDICAL-PATHOLOGY-MORTALITY CONFERENCE*—Elizabeth Khayat, M.D. and Staff
FRIDAYS, 1:00–2:30 p.m., First Floor Conference Room *HEMATOLOGY GRAND ROUNDS*
For further information contact The Jamaica Hospital, 89th Avenue and Van Wyck Expressway, Jamaica 11418. Tel: 212/657-1800.

Flushing Hospital and Medical Center

Parsons Boulevard and 45th Avenue
Flushing
May 3, 9:00 a.m.–12 Noon, Sunday
FLUIDS, ELECTROLYTES & ACID BASE PROBLEMS IN THE SURGICAL PATIENT
CREDIT: AMA Cat. 1
May 5
CORONARY ANGIOGRAPHY & MYOCARDIAL REVASCULARIZATION: A SURGEON'S VIEWPOINT
Robert Frater, M.D.
May 12
ANTIBIOTICS IN INTRA-ABDOMINAL SEPSIS
Steven Udem, M.D.
May 19
GRAM NEGATIVE INFECTIONS & SEPSIS
Michael Parry, M.D.
CREDIT: AMA Cat. 1
For further information contact Flushing Hospital and Medical Center, Parsons Boulevard and 45th Avenue, Flushing 11355. Tel: 212/670-5741.

Flushing Hospital and Medical Center Cosponsored with Memorial Sloan Kettering Center

Parsons Boulevard and 45th Avenue
Flushing
May 7
THYROID CANCER
Robert Leeper, M.D.
For further information contact Flushing Hospital and Medical Center, Parsons Boulevard and 45th Avenue, Flushing 11355. Tel: 212/670-5000.

National Institute of Neurological and Communicative Disorders and Stroke, the Tourette Syndrome Association and the Gateposts Foundation

40–08 Corporal Kennedy Street
Bayside
• Roosevelt Hotel
New York
May 27–29
INTERNATIONAL SYMPOSIUM ON GILLES DE LA TOURETTE SYNDROME
For registration and information and program contact Sheldon Novick, M.D., TSA Med. Dir., Gateposts Fdn., 42–40 Bell Blvd., Bayside 11361. Tel: 212/631-0177.

NASSAU COUNTY

Long Beach Memorial Hospital Cosponsored by The Page and William Black Post-Graduate School of Medicine of the Mount Sinai School of Medicine (CUNY)

455 E. Bay Drive
Long Beach
May 5, 4:00–6:00 p.m.
LIVER DISEASE
Fenton Schaffner, M.D.
NO FEE CREDIT: AMA Cat. 1
For further information contact Community Relations Department, Long Beach Memorial Hospital, 445 E. Bay Drive, Long Beach 11561. Tel: 516/432-8000, ext. 362 or 363.

North Shore University Hospital

300 Community Drive
Manhasset
• Ketcham Boardroom
8:00 a.m.
May 5
RECENT ADVANCES IN OCULOPLASTIC SURGERY
John Simonton, M.D.
May 12
CHILDHOOD UVEITIS

Robert Coles, M.D.
May 19
PROBLEMS IN THE DIAGNOSIS OF NYSTAGMUS
Ronald Carr, M.D.
May 26
VASCULAR TUMORS OF THE ORBIT
Barrett Haik, M.D.
For further information contact North Shore University Hospital, 300 Community Drive, Manhasset 11030.

Long Island Jewish-Hillside Medical Center & The Post Graduate Institute for Medical and Dental Education, New Hyde Park and the Health Sciences Center, SUNY (Stony Brook)

* Teaching Center Auditorium, Room 201C
Long Island Jewish-Hillside Medical Center
New Hyde Park
8:30–9:30 a.m., Thursdays
WEEKLY MORTALITY AND MORBIDITY CONFERENCE, from 8:00 am.–8:30 a.m., *PRECEEDS SURGICAL GRAND ROUNDS*
May 7
END RESULTS OF SURGERY FOR CROHN'S DISEASE
George Flint, M.D.
May 14
CLINICAL APPLICATION OF RECENT ADVANCES IN PANCREATIC PHYSIOLOGY
Gerard Burns, M.D.
May 21
SURGICAL TREATMENT OF AORTO-LLIAC ARTERY DISEASE
John Chang, M.D.
May 28
REPORT OF MEETING OF THE A.G.A. AND THE SOCIETY FOR SURGERY OF THE ALIMENTARY TRACT (Meeting: 5/10–5/22, New York City)
NO FEE CREDIT: AMA Cat. 1
For further information contact Reid Aaron, Long Island Jewish-Hillside Medical Center, New Hyde Park 11042. Tel: 212/470-2663.

Nassau County Medical Center

2001 Hempstead Turnpike
East Meadow
* Amphitheater Dynamic Care Building
10:00 a.m., Thursdays
May 7
HYPERTENSION PROFESSOR ROUNDS
Martin Roginsky, M.D.
May 14
NEWER INFECTIOUS BOWEL DISEASES: YERSINIA AND CAMPYLOBACTER
Joan I. Casey, M.D.
May 21
EPIDEMIOLOGY OF PYELONEPHRITIS
Stephen Zinner, M.D
May 28
MYASTHENIA GRAVIS
Michael Swerdlow, M.D.
CREDIT: AMA Cat. 1
For further information contact Ethel Ford, CME Coordinator, Department of Medicine, Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow 11554. Tel: 516/542-3713.

Nassau County Medical Center

2201 Hempstead Turnpike
East Meadow
May 22
DISEASES OF THE MACULA DIAGNOSIS AND MANAGEMENT
Gerald Batt, M.D.
For further information contact Elsa K. Rahn, M.D., Director, Division of Ophthalmology, Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow 11554. Tel: 516/542-1023.

Nassau Hospital

259 First Street
Mineola
May 26
FAMILY PRACTICE
DIABETES MELLITUS—PART I
John F. Aloia, M.D.
INTERNAL MEDICINE
* Breed Conference Room
11:00 a.m., Mondays
PRIMARY CARE CONFERENCES
May 4
ANTIMICROBIAL THERAPY IN UROLOGY
Martin Spatz, M.D.
May 11
THE DEVELOPMENT OF HEALTH MAINTENANCE ORGANIZATIONS
Steven Jonas, M.D.
May 18
NUTRITION AND CANCER
Ashok N. Vaswani, M.D.
CRITICAL CARE CONFERENCES
* Breed Conference Room
11:00 a.m., Tuesdays
May 5
DIAGNOSIS AND TREATMENT OF THE SYSTEMIC MYCOSES
Burke A. Cunha, M.D.
May 12
EMERGENCIES CREATED BY TUMOR SECRETORY PRODUCTS
Seymour Ritter, M.D.
May 19
HYPOPHOSPHATEMIA AND HYPOMAGNESEMIA
Edgar Mendizabal, M.D.
May 26
MAJOR CLINICAL SEQUELAE OF CIRRHOSIS
Anthony Cordaro, M.D.
ADVANCES IN MEDICINE
* Breed Conference Room
10:00 a.m.–Noon, Wednesday
May 6
RESPIRATORY INFECTIOUS DISEASE
Chien Liu, M.D.
May 13
THROMBOTIC THROMBOCYTOPENIS PURPURA: RECENT DEVELOPMENTS IN PATHOGENESIS AND IN TREATMENT
Ronald M. Bukowski, M.D.
ENDOCRINOLOGY SYMPOSIUM
8:00 a.m.–1:00 p.m.
May 20
ENDOCRINOLOGY SYMPOSIUM
STABLE DIABETES
Harold Rifkin, M.D.
THE PATIENT AS SELF-MANAGER
Patricia Donohue Porter, R.N., M.S.N.
DIABETIC EMERGENCIES
Philip Felig, M.D.
LARGE VESSEL FAILURE
Charles R. Shuman, M.D.
THE PREGNANT DIABETIC
John W. Hare, M.D.
May 27
COMPLICATIONS OF INFLAMMATORY BOWEL DISEASE
Irwin Katzka, M.D.
PROBLEM SOLVING CONFERENCES
* Breed Conference Room
11:00 a.m., Fridays
May 1

WHO NEEDS CORONARY ANGIOGRAPHY
Mark Goodman, M.D.
May 8
DISEASES ACQUIRED FROM ANIMALS—THE ZOONOSES
Burke A. Cunha, M.D.
May 15
COMPLICATIONS OF CHEMOTHERAPY IN CANCER
Laurence G. Bilsky, M.D.
May 22
HYPOGLYCEMIA
Ashok Vaswani, M.D.
May 29
CHRONIC HEPATITIS—RECENT CONCEPTS
Robert Bartolomeo, M.D.
OBSTETRICS AND GYNECOLOGY
• Breed Conference Room
8:00 a.m.
MEDICAL LECTURE SERIES
May 8
BASIC INFERTILITY I
Ira Spector
UPDATE IN GYNECOLOGIC ONCOLOGY
• Breed Conference Room
9:00 a.m.
May 22
TROPHOBLASTIC DISEASE
UPDATE IN GYN AND OBSTETRICAL PATHOLOGY
• Breed Conference Room
8:00 a.m.
May 1
PATHOLOGY OF THE CERVIX UTERI
May 15
MICROBIOLOGY IN OBSTETRICS AND GYNECOLOGY
UPDATE IN GYNECOLOGIC ENDOCRINOLOGY
• Breed Conference Room
9:00 a.m.
May 1
NORMAL AND ABNORMAL SEXUAL DIFFERENTIATION II
UPDATE IN PERINATOLOGY
• Breed Conference Room
9:00 a.m.
May 15
CESAREAN SECTION—CURRENT TRENDS
Steven A. Klein, M.D.
OPHTHALMOLOGY
• Board Room
5:00 p.m., Tuesdays
May 5
INTRAOCULAR TUMORS
David Abramson, M.D.
PEDIATRICS
• 6 New Conference Room
1:00 p.m., Thursdays
NEONATAL LECTURE SERIES
Paul F. Twist, D.O.
May 7
THYROID DISORDERS IN NEWBORN
May 14
NEONATAL SKIN DISORDERS
May 21
GROUP B STREP INFECTIONS
May 28
IMMUNOLOGY OF NEONATE
PERINATAL/NEONATAL CONFERENCE
• Breed Conference Room
12:00 noon, Fridays
May 1
MORBIDITY AND MORTALITY CONFERENCE
May 8
CARDIOVASCULAR DISEASES IN INFANCY AND THE NEWBORN
May 15
PERINATAL CASE STUDIES
May 22
HYPERTENSIVE RENAL VASCULAR DISORDERS
May 29
POST DATE PREGNANCIES
For further information contact G. E. Lessard, Ph.D., Nassau Hospital, 259 First Street, Mineola 12501. Tel: 516/663-2521.

SUFFOLK COUNTY

Brookhaven Memorial Hospital Medical Center

101 Hospital Road
Patchogue
• 1st Floor Conference Room
7:50–9:00 a.m.
May 1
FEVER OF UNKNOWN ORIGIN
Jack LeFrock, M.D.
May 8
INTERFERON
W. E. Stewart III, Ph.D.
May 22
INFECTIVE ENDOCARDITIS
Burke Cunha, M.D.
May 29
REYES SYNDROME
John Partin, M.D.
CREDIT: AMA Cat. 1 & AAFP
For further information contact Dorothy S. Lane, M.D., Director of Medical Education, Brookhaven Memorial Hospital Medical Center, 101 Hospital Road, Patchogue 11772. For further information call the Dept. of Community Medicine at 516/654-7797.

Brookhaven Memorial Hospital Medical Center

101 Hospital Road
Patchogue
• 1st Floor Conference Room
8:30 a.m., Saturday
May 2
MEDICAL GRAND ROUNDS
Morton Nathanson, M.D.
CREDIT: AMA Cat. 1 & AAFP
For further information contact Dorothy S. Lane, M.D., Director of Medical Education, Brookhaven Memorial Hospital Medical Center, 101 Hospital Road, Patchogue 11772. Tel: 516/654-7000.

Brookhaven Memorial Hospital

101 Hospital Road
Patchogue
• 1st Floor Conference Room
May 5, 7:50 a.m.
PREVENTION OF DENTAL CARIES: CURRENT THEORIES & PRACTICE
Howard Miller, D.D.S.
CREDIT: AMA Cat. 1 & AAFP
For further information contact Dorothy S. Lane, M.D., Director of Medical Education, Brookhaven Memorial Hospital Medical Center, 101 Hospital Road, Patchogue, 11772. Tel: 516/654/7797.

St. Charles Hospital

200 Belle Terre Road
Port Jefferson
• St. Charles Classroom A
May 1, 8:00 a.m.
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
May 8, 8:00 a.m.

PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER

May 15, 8:00 a.m.
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER

* Board Room
May 18, 7:00 a.m.
ANESTHESIOLOGY CONFERENCE
ANESTHESIA FOR V.A. SHUNT
Edward A. Norris, M.D.

* St. Charles Lecture Room
May 18, 7:30 a.m., Monday
OPHTHALMOLOGY CONFERENCE
DACRYOCYSTOMY-RHINOSTOMY-KASPER OPERATION WITH SILICONE INTUBATION
Jean-Pierre Huberman, M.D.

* St. Charles Classroom A
May 22, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER

May 29, 8:00 am., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER

For further information contact Mary Rotolo, Department of Medical Education, St. Charles Hospital, 200 Belle Terre Road, Port Jefferson 11777. Tel: 516/473-2800.

Mather Memorial Hospital

North Country Road
Port Jefferson
* Mather Conference Room

May 4, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY

May 4, 8:00 p.m.–10:00 p.m., Monday
DENTAL PROGRAM
HEPATITIS AND OTHER G.I. PROBLEMS
Arain Nawaz, M.D.

May 5, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
INFLAMMATORY BOWEL DISEASE
Howard Spiro, M.D.

May 11, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY

May 12, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
ETHICS IN HUMAN HEREDITY
Bentley Glass, Ph.D.

May 13, 7:30 a.m., Wednesday
PSYCHIATRIC CONFERENCE
TREATMENT OF THE ADOLESCENT IN-PATIENT
Carmel Foley, M.D.

May 18, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
CARCINOMA OF THE LUNG
Marvin Kuschner, M.D.

May 19, 11:30 a.m.–1:00 p.m.
WEEKLY EDUCATIONAL SERIES
REIMPLANTATION
William Shaw, M.D.

May 26, 9:00 a.m., Tuesday
PEDIATRIC PROGRAM
EMERGENCY PEDIATRIC RADIOLOGY
Mary Heneghan, M.D.

May 26, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
UPDATE IN PEDIATRIC SURGICAL EMERGENCIES

For further information contact Mary Rotolo, Department of Medical Education, Mather Memorial Hospital, North Country Road, Port Jefferson 11777. Tel: 516/473-1320.

SUNY at Stony Brook

* Health Sciences Center
May 8, Friday
UPDATE ON SUDDEN INFANT DEATH SYNDROME AND INFANT APNEA
FEE: $50. CREDIT: AMA Cat. 1 (5 hrs.)
For further information please contact Office of Continuing Medical Education, School of Medicine (HSC), SUNY at Stony Brook, Long Island 11794. Tel: 516/246-2094/2135

WESTCHESTER COUNTY

New York Medical College

Valhalla
* INSTRUTIONAL TELEVISION PRESENTATION

May 7
SEMINAR IN CANCER EDUCATION (PRETAPED)
SKIN TUMORS INCLUDING MELANOMA

May 14
SEMINAR IN PEDIATRIC SURGERY (LIVE)
COMMON SURGICAL PROBLEMS IN CHILDREN

May 21
SEMINAR IN CANCER EDUCATION (LIVE)
MALIGNANCIES OF THE BLOOD FORMING TISSUES

May 28
SEMINAR IN CANCER EDUCATION (PRETAPED)
DETECTION AND SCREENING OF CANCER

For further information contact Saverio S. Bentivegna, M.D., Associate Dean Director, Continuing Medical Education, New York Medical College, Valhalla 10595. Tel: 914/347-5147.

New York Medical College, Westchester County Medical Center

Tarrytown
May 13–16
SEMI-ANNUAL OCULOPLASTIC SURGICAL DISSECTION COURSE
FEE: $650. CREDIT: AMA Cat. 1 (40 hrs.)
For further information contact Ms. P. Tamkin, c/o Dr. P. Guibor, 630 Park Avenue, New York 10021. Tel: 212/734-1010.

ALBANY

The Albany Medical College of Union University

Albany
* Capital District Psychiatric Center
New Scotland & Lake Avenues
May 8
NINTH ANNUAL ALUMNI TEACHING DAY IN OBSTETRICS & GYNECOLOGY
HEMATOLOGICAL UPDATE IN OBSTETRICS AND GYNECOLOGY
FEE: $60. CREDIT: AMA Cat. 1 (6 hrs.) & ACOG 6 Cognates
$55. Pre-registered Cat. II-D has been applied for
For further information contact The Education Coordinator, Dept. of OB/GYN, Albany Medical College, 47 New Scotland Avenue, Albany 12208. Tel: 518-445-5215.

BUFFALO

State University of New York at Buffalo

135 Cary Hall
3435 Main Street
Buffalo
* Pillar and Post
Niagara on the Lake
May 1–2
SPORTS MEDICINE
For further information contact State University of New York at Buffalo, 135 Cary Hall, 3435 Main Street, Buffalo 14214. Tel: 716/831-5526.

Roswell Park Memorial Institute and the American Cancer Society, New York State Division and Erie County Unit

666 Elm Street
Buffalo
* Hilleboe Auditorium
May 14
HEMATOLOGIC PROBLEMS IN CANCER PATIENTS
Julian L. Ambrus, M.D.
FEE: $25. CREDIT: AMA Cat. 1 & AAFP & AOA Cat. 2
For further information contact Gayle Bersani, Coordinator, Cancer Control Office, Roswell Park Memorial Institute, 666 Elm Street, Buffalo 14263. Tel: 716/845-4406.

NEW HAMPTON

Mid-Hudson Psychiatric Center

Box 158
New Hampton
8:30 a.m.–12:30 p.m.
May 14
UNDERSTANDING AND PREDICTING DANGEROUSNESS IN A FORENSIC SETTING
Cornelis Stokman, Ph.D.
CREDIT: AMA Cat. 1 (3 hrs.)
For further information contact Paul Chellappa, M.D., Chairman, CME Committee, Mid-Hudson Psychiatric Center, Box 158, New Hampton, New York 10958. Tel: 914/374-3171.

SYRACUSE

SUNY-Upstate Medical Center

750 East Adams Street
Syracuse
* Marriott Inn
Syracuse
May 15
2ND ANNUAL ALUMNI TEACHING DAY
Patricia J. Numann, M.D., Jack E. Yoffa, M.D.
* Holiday Inn, Downtown
Syracuse
May 26
CHRONIC PELVIC AND BACK PAIN IN WOMEN
Raja W. Abdul-Karim, M.D.
* Hotel Syracuse
Syracuse
May 28–29
UPSTATE OTOLARYNGOLOGY ANNUAL MEETING
Richard R. Gacek, M.D.
For further information contact Program Coordinator, Office of Continuing Education, Upstate Medical Center, State University of New York, 750 East Adams Street, Syracuse 13210. Tel: 315/473-4304 or 473-4606.

FUTURE EVENTS

The New York Hospital-Cornell Medical Center sponsored by the Office of Continuing Medical Education of Cornell University Medical College and the Association of Practicing Physicians of The New York Hospital

525 East 68th Street
June 1–5
UPDATE YOUR MEDICINE 1981
Lila A. Wallis, M.D., Stephen Scheidt, M.D.
For further information contact Office of Continuing Medical Education, Cornell University Medical College, Room F-436, 1300 York Avenue, New York 10021. Tel: 212/472-5600.

Albert Einstein College of Medicine of Yeshiva University

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Massachusetts
June 29–July 4
CLINICAL NEUROLOGY
David Kaufman
July 6–10
CLINICAL PSYCHOPHARMACOLOGY
Louis Gerbino
July 13–17
DIVORCE: CLINICAL INTERVENTIONS
Judith S. Wallerstein
July 20–24
ADULT DEVELOPMENT
George E. Vaillant
July 27–31
BRIEF AND EMERGENCY PSYCHOTHERAPY
Leopold Bellak
August 3–7
THE OFFSPRING OF PSYCHOTIC PARENTS
E. James Anthony
August 10–14
COGNITIVE THERAPY
Aaron
August 17–21
HOLISTIC MEDICINE
David S. Sobel & Kenneth R. Pelletier
August 24–28
PSYCHOLOGY OF THE SELF
Paul H. Ornstein & Anna Ornstein
August 31–September 4
STRESS
Charles Swencionis & Andrew Razin
FEE: $275. for one program CREDIT: AMA Cat. 1 (15 hrs.) each program
$220. for each additional program
For further information contact Office of Continuing Medical Education, Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx 10461. Tel: 212/430-2312.

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SCHEDULE OF SCIENTIFIC MEETINGS

1981 ANNUAL CME ASSEMBLY

Medical Society of the State of New York
Niagara Falls Convention Center

FRIDAY, JUNE 26

Morning:
- Cardiovascular Diseases
- Obstetrics & Gynecology
- Gastroenterology, Colon & Rectal Surgery
- Cancer Update 1981—General Session
- Chest Diseases

Afternoon:
- Occupational Medicine, and Medical Legal & Workers' Compensation matters
- Obstetrics & Gynecology
- Gastroenterology, Colon & Rectal Surgery
- Alcohol & the Unborn—General Session
- Preventive Medicine
- Otolaryngology & Maxillofacial Surgery
- Dermatology & Syphilology

SATURDAY, JUNE 27

Morning:
- Ophthalmology
- Internal Medicine
- Surgery, Urology & Anesthesiology
- Pathology, Radiology & Orthopedic Surgery
- Neurosurgery

Afternoon:
- Ophthalmology
- Internal Medicine
- Computer Application to Office & Hospital Practice General Session

SUNDAY, JUNE 28

Morning:
- Allergy & Immunology
- School Health & Pediatrics
- Psychiatry & Family and General Practice
- Plastic, Reconstructive & Maxillofacial Surgery
- Physical Medicine & Rehabilitation, and Orthopedics
- Neurology

CME CREDITS: Each program will be eligible for CME Category I Credits on an hour-for-hour basis.

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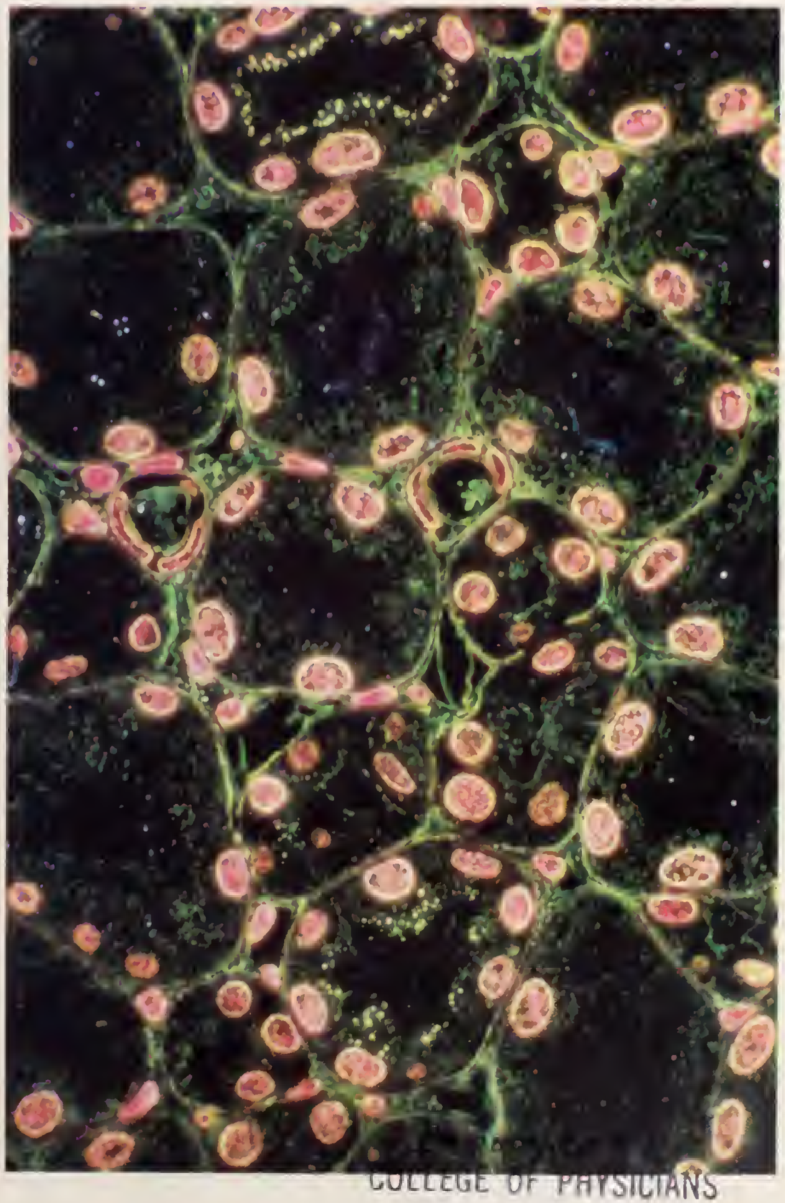

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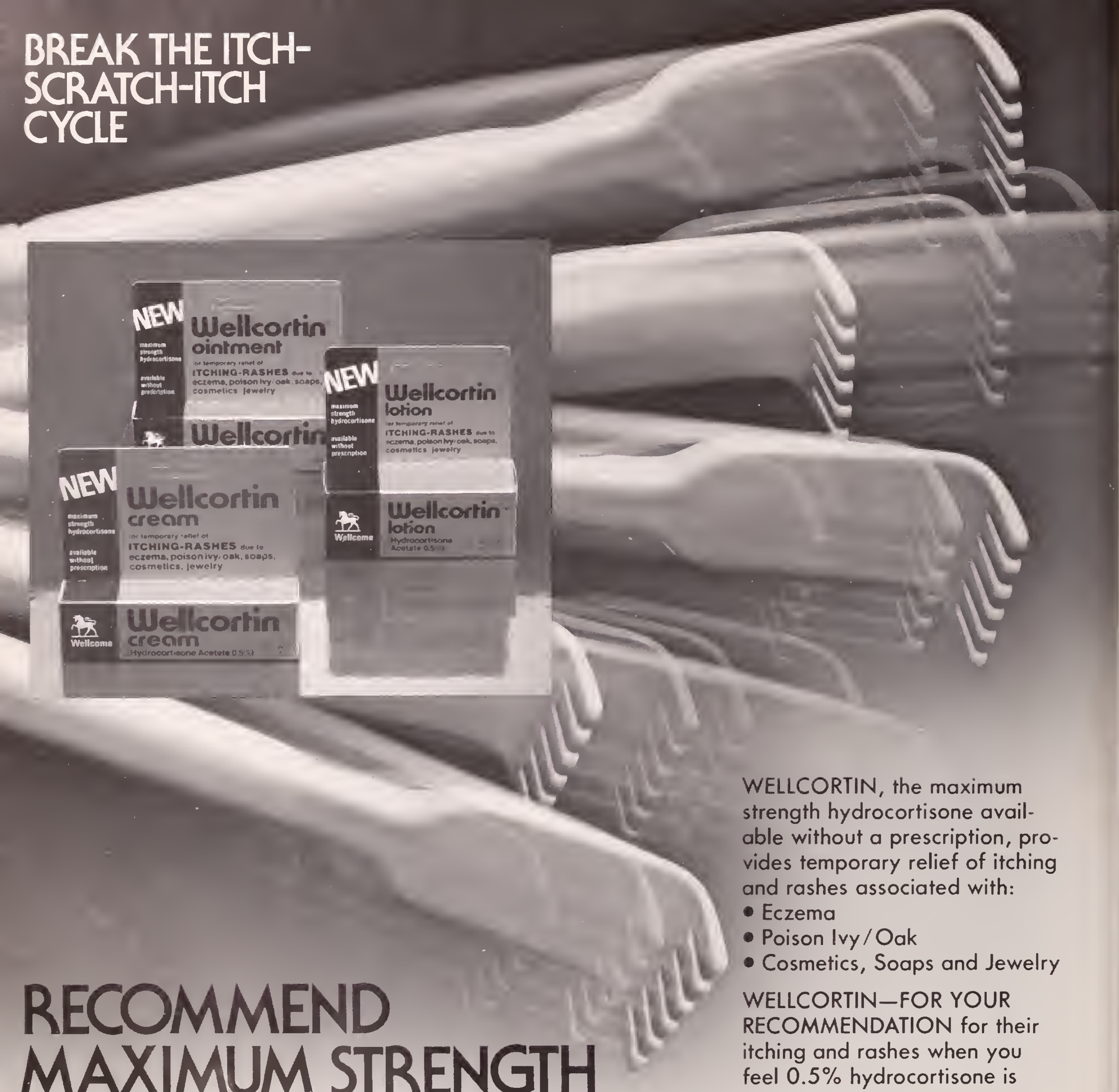

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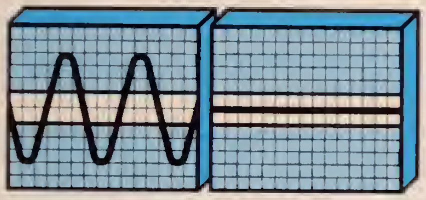

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Medical News

The third annual gerontology forum

A selection of practitioner-oriented workshops in aging, health, long-term care management, and clinical and social issues in gerontology will highlight the Third Annual Gerontology Forum 1981. Sponsored by The New England Consortium for Gerontology, the Forum will be held at the Sheraton-Mansfield Conference Center in Mansfield, Massachusetts, from Monday, July 20 through Friday, July 24, 1981.

The Forum theme is, Encountering the Eighties. Twenty programs of particular relevance to practitioners and the public, as we all face the future of aging in America, will be presented. Full-day workshops will include: Institutions and Long-Term Care Alternatives, Fiscal and Grants Management, Senility and Confusion, New Directions in Geriatric Health Practices, A Legal Primer for LTC Providers, Home Care and the Elderly, Re-Tiring: Life After Work, Elder Abuse, Evaluation of Care and Quality Assurance, Understanding and Managing Stress, Pharmacology, a Pain Clinic, Hospice, Primary Nursing with Geriatric Patients, among others. Evening events are planned for Forum participants.

For further information and/or a Forum brochure, please contact: N.E.C.G., 15 Garrison Avenue, Durham, NH 03824. Telephone: (603) 862-1903.

Pediatrics seminar-at-sea

Pediatrics Seminar-at-Sea is being presented by Southern Illinois University School of Medicine for eight, ten, or 12 nights beginning September 5. The seminar is designed to be taken for 8, 10, or 12 days and will begin in Vancouver, British Columbia. Registrants may sign up for the 36-, 48-, or 60-hour seminar.

This continuing medical education activity meets the criteria for 36, 48, or 60 credit hours in Category 1 of the Physician's Recognition Award of the American Medical Association and 36, 48, or 60 hours of prescribed credit from the American Academy of Family Physicians.

For further information on the program write: Charles E. Osborne, Ed.D., Assistant Dean, Office of Continuing Medical Education, SIU School of Medicine, P.O. Box 3926, Springfield, Illinois 62708; or call (217) 782-7711.

Comprehensive psychiatry board review

New York University Post-Graduate Medical School announces a "Comprehensive Psychiatry Board Review" to be held Wednesdays 7:00 p.m. to 10:00 p.m., September 9 to April 21. Ninety hours (90) of AMA credit hours in Category 1 will be awarded.

For further information and a course brochure: NYU Post-Graduate Medical School, 550 First Avenue, New York, N.Y. 10016; telephone (212) 340-5295 (24-hour telephone service).

Material for inclusion in the medical meetings must be received eight weeks prior to publication date.

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FRONT COVER: Thin section of kidney tubules. Darkfield illumination (260X). By Dorothy Rutherford, New York University, New York City, ninth place winner in the 1979 Nikon Photomicromacrograph Contest.

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Letters to the Editor

Professional competence; evaluation

To the Editor: John H. Morton, M.D., in the February, 1981,* Journal evidences a considerable concern with the maintenance of professional competence of physicians. No thinking or logical person could disagree with him that practicing physicians should be kept informed of the latest and newest in their field, however, abstract knowledge alone is clearly not enough. It is also clear and evident that examinations to test competence, based on that abstract knowledge, is not sufficient to delineate who is or who will be a competent treating physician.

I respectfully suggest that the market place itself serves as a *triage point*, and that the practitioner who is successful in his treatment and practice will attract more patients, while the inept or careless will not. In fact, one of the salutary effects of the medical malpractice "problem" may well be the elimination of the inept physician, or at least the curtailing of that physician's practice in those areas where he or she is wanting in skill.

Having once demonstrated possession of the minimal skills requisite to practice medicine, the choice at a professional, responsible level is up to the physician—to keep up or to falter. Hopefully physicians will opt to keep up, but whether they do or not, CME or Recertification in speciality groups will not be a sufficient guarantee of quality in the "real world" and should not be made requisite in order to continue practice.

DANIEL M. SHAPIRO, M.D.
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New York, N.Y. 10014

*Morton, H. H.: Professional competence; evaluation, New York State J. Med. 81: 251 (Feb.) 1981.

Dr. Morton's reply

To the Editor: Dr. Shapiro is certainly correct when he states that "knowledge alone is clearly not enough." He is also correct in his argument that examinations can not predict who will be a competent practitioner. A properly constructed examination measures whether or not a physician possesses current knowledge; and the physician who is well informed possesses one of the essential elements for good medical practice. The fact that a physician is well informed does not, of course, guarantee that the knowledge will be appropriately used. It is merely one attribute for a successful practitioner.

I do not agree with Dr. Shapiro that "the practitioner who is successful in his treatment and practice will attract more patients while the inept or careless will not." There is abundant evidence that patients are attracted more by a warm personal approach than by professional skill. The success of the chiropractor is certainly based on a positive and interested attitude towards patients, but most physicians would not argue that this indicates a high degree of skill in medical matters.

Although CME or recertification "will not be a sufficient guarantee of quality," successful completion of a program developed by a specialty society or a specialty board does assure patients that a physician possesses the necessary information for good medical practice.

JOHN H. MORTON, M.D.
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DES story; review and report

To the Editor: The title of the article "DES story; review and report" in the February, 1981, Journal* is misleading, for while the material in the article is *part* of the DES story, it by no means is the DES story that the title implies.

As a urologist with an interest in the DES problem in the male, I wish to call attention to the *part of* the "DES Story" that has been largely ignored and/or underemphasized—and that is the *in utero* effect of DES exposure in the male.

In a personal series of over 70 DES-exposed males we have confirmed the findings of others,[1-6] namely that male subjects may sustain genital tract changes as a result of DES exposure *in utero*, as do females to which *Yoonessi et al.* refer in their article.

For example, of those patients in our study who had a semen analysis done, a third had severely pathological semen, a sixth had pathological semen, and only a third had normal semen. Additionally, over half the patients had genital abnormalities. The most frequent were varicocele, epididymal cysts, hypoplastic testes, and undescended testes. No patient had documented cancer of the testes.

It should be stressed that, at the present time, the complete effects of abnormal semen on fertility are unknown. However, it seems likely that the fertility of those patients with severe semen abnormalities will be impaired.

In a report accepted for publication in the Journal of Urology, Elliot Leiter, M.D., and I make a plea that urologists ask all patients with infertility or pathological semen analyses of unknown cause whether they have been exposed to DES. We, and others, have called for a national controlled study. In addition, we have also suggested an awareness program to study the health effects on men of DES exposure.[7]

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* Yoonessi, M., et al.: DES story; review and report, New York State J. Med. 81: 195 (Feb.) 1981.

References

1. Gill, W. B., Schumacher, G. F. B., and Bibbo, M.: Pathological and anatomical abnormalities of the genital tract in human male subjects exposed to diethylstilbestrol in utero, J. Urol. 117: 477 (1979).
2. Cosgrove, M. D., Benton, B., and Henderson, B. E.: Male genitourinary abnormalities and maternal diethylstilbestrol, ibid. 117: 220 (1977).

(*continued on page 989*)

Month in Washington

The American Medical Association has told the Congress that it endorses the thrust of the Reagan Administration's "cap" proposal to control Medicaid costs in support of the President's program to improve the overall economic situation.

Frederick A. Ackerman, M.D., Chairman of the AMA's Council on Legislation, told the Senate Special Committee on Aging that achieving economies in the Medicaid program will not be an easy task. "There can be no question, however, that much can be done to help assure that Medicaid achieves greater cost-effectiveness while maintaining the availability of quality care," Dr. Ackerman said. "States should be able to maintain essential services through greater efficiencies in administration, and by elimination of fraud and abuse through vigorous enforcement of the law and judicious cutbacks where eligibility has become over-extended.

"While the Association has not had the opportunity to examine the legislative details of the Administration's Medicaid "cap" proposal it supports the overall initiatives of the President 'as he seeks to restore some measure of fiscal stability and integrity to our government budget policies.' "

"There can be little question that the American people wish to have the government do whatever it can to stem the rapidly rising cost of living," Dr. Ackerman said. "The nation requires a commitment by government, the private sector, and the individual household to do what each can—individually and collectively—to hold down the recent dramatic increase in the cost of living. Where cuts are made across the board to reduce deficit spending, our Association expects that some reductions in federal health spending will also take place."

The Association spokesman did not specifically endorse the Administration's proposed five percent "cap," and asked the Congress to carefully examine whether the use of the Gross National Product deflator was the appropriate tool to determine the "cap."

The AMA spokesman also supported in concept the Administration's proposal to transfer the present numerous categorical health program grants into two block grants—one for basic health, mental health, and substance abuse services, and the other for preventive health services.

"The block grant approach," Dr. Ackerman said, "is a way to give the states greater flexibility to determine their own public health priorities and addressing state needs. Likewise, the AMA believes that major economies will be available because of a major reduction in federal administrative expenses and also in state and provider costs incurred in meeting federal regulatory requirements."

The "cap" and block grant proposals reflect a significant shift in the relative responsibilities of the federal and state governments toward health programs, according to Dr. Ackerman. "The proposals represent the view that states are better able to determine the needs of their citizens and to target program funding to better meet local needs. The porposals also reflect the potential cost savings that can be achieved through an end to rigid, expensive, and complex federal requirements."

The Association has informed the Congress of a number of areas in the Medicare program where both short and long term savings could be made, but warned "it is essential to exercise extreme caution so as to prevent potential disruptions in the program that would adversely affect the vital medical care of the elderly."

Lowell H. Steen, M.D., Chairman of the AMA Board of Trustees in testimony before the Health Subcommittee of the House Ways and Means Committee, identified certain portions of the program where savings could be found and individuals would not be seriously affected.

"Maximum savings should be generated from increased efficiencies in program administration and reductions in fraud and abuse before benefits are reduced," Dr. Steen said.

* * *

The AMA also testified twice before the Congress in support of the Reagan Administration's plan to phase out the PSRO (Professional Standards Review Organizations) and to simultaneously eliminate federally-mandated utilization review.

Joseph F. Boyle, M.D., Vice Chairman of the AMA's Board of Trustees, spoke for the Association before subcommittees of the Senate Finance Committee and the House Ways and Means Committee on the growing unrest among physicians over the federal direction and implementation of the PSRO program.

"In supporting termination of the PSRO program, I want to emphasize that the AMA remains a staunch advocate of peer review as a mechanism to assure high quality medical care. However, it is our view that in attempting to federalize peer review the government has misdirected the professional objectives of peer review, that is, to assure high quality care, and has inappropriately focused the PSRO program principally to contain costs.

"Based on recently released reports by the Congressional Budget Office, the Health Care Financing Administration, and the General Accounting Office, the ability of the government to use the PSRO program as a cost-savings mechanism is highly questionable.

"The Association recognizes the responsibility of the profession to work to assure quality care for patients undergoing medical treatment in this country. I want to assure you that in the absence of government direction and interference the profession will vigorously renew and strengthen private sector peer review activities."

In conclusion, Dr. Boyle explained the Association's change in position on the PSRO program after nine years of support "as a natural, eventual result based on the growing dissatisfaction that developed from the often fruitless and frustrating efforts to work with the federal bureaucracy and improve the PSRO program."

Dr. Boyle strongly emphasized that the Association's recommendation for the termination of the PSRO program should not be considered a withdrawal of support for professional peer review of medical service to ensure quality care. "What the AMA is rejecting is a federally directed review program where the federal direction is no longer interested in patient care or quality service, but has become

(continued on page 910)

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Abstracts

Early, A. P., Ozer, H., and Henderson, E. A.: Multiple myeloma, **New York State J. Med.** 81: 883 (May) 1981.

Multiple myeloma is a neoplastic proliferation of plasma cells producing in most instances a specific, monotypic immunoglobulin. Osteoclast-activating factor(s) secreted by the neoplastic plasma cells mediates focal and generalized osteolysis. Synthesis of normal, polyclonal immunoglobulins is decreased, and there is frequently suppression of erythropoiesis, granulopoiesis, and megakaryocytopoiesis. Recent investigations have implicated involvement of several cell populations and immunoregulatory mechanisms in the pathogenesis of the disease. Clinical features include bone pain, anemia, increased susceptibility to infection, renal insufficiency, and hypercalcemia. Less frequent but significant complications include spinal cord and nerve root compression, neuropathy, hyperviscosity syndrome, amyloidosis, and extraosseous plasma cell tumors. The diagnosis is established by demonstration of a monoclonal serum and/or urine paraprotein in association with decreased levels of normal polyclonal immunoglobulins, marrow plasmacytosis, and osteolytic bone lesions. Chemotherapy has ameliorated symptoms and prolonged survival. Melphalan, given continuously or in intermittent high dose, and in combination with prednisone remains the treatment of choice. Clear benefit from multi-agent chemotherapy remains to be established. Prognosis is poor for those patients who fail to respond or relapse but several therapies now under investigation may be of benefit. The underlying principle for management of disease complications is control of the myelomatous process, although supportive measures such as plasmapheresis or local radiotherapy may be essential. Future advances depend on unravelling the extent of the myelomatous process and defining the disease's immunoregulatory mechanisms.

Vianna, N. J., Brady, J. A., and Cardamone, A. T.: Epidemiology of angiosarcoma of liver in New York State, **New York State J. Med.** 81: 899 (May) 1981.

The geographic distribution of ASL (angiosarcoma of the liver) among residents of New York was examined with special emphasis on the epidemiologic characteristics which might be of etiologic importance in this malignancy. The average annual incidence rate for the state, excluding New York City, was 0.26 per million population. Of the chemicals associated with ASL, potential exposure to vinyl chloride appeared to be the most important factor in certain urban industrialized counties, whereas probable arsenic exposure was the major factor in rural areas. Prior thorium dioxide injections accounted for only 7 percent of the 43 patients studied. We suggest that certain chemicals structurally similar to vinyl chloride might be of etiologic importance among patients who have no documented exposure to any of the established causes of ASL.

Fish, B., Smulewicz, J. J., and Barek, L.: Role of computed tomography in diagnosis of appendiceal disease, **New York State J. Med.** 81: 900 (May) 1981.

In five patients evaluated by CT (computed tomography), the correlation of CT with other radiologic studies enabled a preoperative diagnosis of appendiceal disease (mucocele, abscess, tumor). The ability of CT to measure and compare tissue densities, show the extent of the disease and its spatial relation to adjacent organs, and to locate the disease in intra- or extraperitoneal spaces facilitates diagnosis and provides excellent preoperative guidance.

Valvo, J. R., Caldamone, A. A., and Frank, I. N.: Asymptomatic urologic lesions in patients receiving anticoagulants, **New York State J. Med.** 81: 905 (May) 1981.

Since a significant number of urothelial tumors are found in an advanced stage, early diagnosis and treatment provide the most favorable prognosis. Hematuria occurring during anticoagulant therapy may be the only evidence of asymptomatic disease. We wish to emphasize the need for a complete urologic investigation, particularly in the older age group.

Whitehead, D. E.: Management of renal carcinoma, **New York State J. Med.** 81: 911 (May) 1981.

Renal carcinoma is currently diagnosed in approximately 17,000 patients annually and causes approximately 8,000 deaths annually. This paper reviews the suspected etiologies, methods of detection, current diagnostic and staging procedures, principles and therapeutic alternatives of management, and follow-up methodologies.

Abstracts in Interlingua

Early, A. P., Ozer H., e Henderson, E. S.: Myeloma multiple, **New York State J. Med.** 81: 883 (Maio) 1981.

Le myeloma multiple (MM) es una proliferation neoplastic del cellulas plasmatic producente, in le major parte del casos, un immunoglobulina monotypic specific. Le factor (es) activante del osteoclastos secretate per le cellulas plasmatic neoplastic mediate le osteolysis focal e general. Le synthesis del immunoglobulinas polyclonal normal es reducite e con frequentia es producite un supression del erythropoiesis, granulopoiesis e megakaryocytopoiesis. Investigationes recente ha implicate le compromisso de varie gruppos cellulari con le mechanismo immunoregulatori in le pathogenese del morbo. Le characteristic clinic include dolor ossee, anemia, major susceptibilitate al infectiones, insufficientia renal e hypercalcemia. Complicationes minus frequente mais importante include le compression del corda spinal e del radices nervose, neuropathia, syndrome de hyperviscositate, amyloidose e tumores extraossee ab cellulas plasmatic. Le diagnose es establite mediante le demonstration de un serum myoclonal e/o de paraproteina urinari accompaniate de un reduction del nivellos de immunoglobulinas polyclonal normal, plasmacytosis del medulla ossee e lesiones osteolytic del ossos. Le chimiotherapia ha ameliorate le symptomas e prolongate le superviventia. Le melphalan, administrate continuemente o intermittentemente, a doses elevate, combinate con prednisona representa le tractamento de election. Resta establir si le chimiotherapia con multiple agentes produce un clar beneficio. Le prognose es pauvre per le patiente que non responde o que recidiva; varie altere therapias es, al presente, investigate pro obtenir un beneficio potential. Le principio subjacente del tractamento del complicationes del morbo consiste in le control del processo myelomatose, ben que mesuras supportive como le plasmapheresis o le radiotherapia local pote esser essential. Future progressos therapeutic depende del evalutation extensive del processo myelomatose e del cognoscentia del mechanismos immunoregulatory del morbo.

Vianna, N. J., Brady, J. A., e Cardamone, A. T.: Epidemiologia del angiosarcoma del ficato in le Stato de Nove York, **New York State J. Med. 81: 899 (Maio) 1981.**

Le distribution geographic del angiosarcoma hepatic (ASH) intra le residentes de Nove York esseva examinate con emphasis special in le characteristicas epidemiologic que pote haber un importantia etiologic in iste morbo maligne. Le frequentia medie annual in le Stato, excludente le Citate de Nove York, esseva del 0.26 per million de personas. Del agentes chimic associate al ASH, le exposition potential al chloruro de vinylo pare esser le factor plus importante in certe regiones urban industrialisate; in cambio, le exposition probabile al arsenico esseva le factor principal in areas rural. Anteriormente, le uso parenteral del dioxido de thorium esseva responsabile de solmente un 7 pro cento del 43 patientes studiate. Nos suggere que certe agentes chimic structuralmente similar al chloruro de vinylo pote esser de importantia etiologic intra patientes que non ha essite exposite, documentatemente, a nulle del causas establite de iste ASH.

Fish, B., Smulewicz, J. J., e Barek, L.: Rolo del tomographia computarisate in le diagnose del morbo appendiculari, **New York State J. Med.** 81: 900 (Maio) 1981.

In 5 patientes examinate con le tomographia computarisate (TC), le correlation del TC con altere studios radiologic facilitava le diagnose preoperatori de morbos del appendix (mucocele, abscessos, tumores). Le capacitate del TC de mesurar e comparar le densitate del texitos permite demonstrar le extension del morbo e su relation spatial con le organos adjacente, e localisar le morbo in le spatios intra o extraperitoneal facilitante le diagnose e proportionante un excellente guida preoperatori.

Valvo, J. R., Caldamone, A. A., e Frank, I. N.: Lesiones urologic asymptomatic in patientes tractate con anticoagulantes, **New York State J. Med.** 81: 905 (Maio) 1981.

Como un numero significative de tumores urothelial es trovate in le etate avantiate del vita, le diagnose e tractamento temprane permite establir le prognose plus favorabile. Le hematuria occurrente durante le therapia anticoagulante pote esser le sol evidentia de un morbo subjacente asymptomatic. Nos desira emphatisar le necessitate de un investigation urologic complete, particularmente in le patientes ancian.

Whitehead, D. E.: Tractamento del cancer renal, **New York State J. Med.** 81: 911 (Maio) 1981.

Le carcinoma renal es currentemente diagnosticate in approximemente 17.000 patientes annualmente. In iste articulo es revistite le etiologias suspectate, le methodos de detection, le procedimentos actual pro le diagnose e le establimento de grados o phases, le principios e le alternativas therapeutic, e le methodologia pro su observation ulterior.

Translated by Eduardo I. Juliet, M.D.

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DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. Synalgos-DC is given orally. The usual adult dose is two capsules every 4 hours as needed for pain.

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Books Reviewed

Manual for Eye Examination and Diagnosis. Second edition. By Mark W. Leitman, M.D., Samuel Gartner, M.D., and Paul Henkind, M.D., Ph.D. Oradell, N.J., Medical Economics Company, Book Division, 1981. Illustrated, 74 pages. Paperback, $8.95.

This little volume serves those who have no experience with the examination of the eye and who wish to avoid the pitfalls of "missing something" in a cursory examination of the eye. Certainly those who have gone through adequate training such as in a residency should have no need for this volume. It should certainly be of use for students and paraprofessionals. Its general coverage is good and should serve as a useful adjunct for those who need some parameters in an ocular examination. The authors are certainly well-qualified and have organized an excellent manual for its limited purposes. **Edward Siegel, M.D.**

The Pancreas. International Academy of Pathology Monograph. Edited by Patrick J. Fitzgerald, M.D., and Ashton B. Morrison, M.D., Ph.D. Baltimore, Md., Williams & Wilkins, 1980. Illustrated, 234 pages. Cloth, $34.

This monograph consists of papers delivered at a full day course given at the International Academy of Pathology Meeting on March 7, 1979. The editors themselves have been important contributors to our knowledge of the pancreas and they have assembled a group of distinguished students of the subject.

The monograph sums up basic information in embryology, anatomy, histology, ultrastructure and function, and their alterations in disease. This is complemented by excellent coverage of recent advances.

Drs. Fitzgerald and Morrison deserve high praise for the design of the monograph and for the quality of the presentations.

The monograph is highly recommended reading for trainees in pathology and endocrinology and is an excellent reference work which should be in all hospital and pathology libraries. **Charles F. Begg, M.D.**

Quantitative Explorations in Drug Abuse Policy. Edited by Irving Leveson. New York, SP Medical 7 Scientific Books, 1980. Illustrated, 191 pages. Hardcover, $35.

This is a very important book—not necessarily because the explicit purpose of the editor was accomplished—but rather because the editor has brought together extremely important studies which, once translated for decision makers, can be highly useful. The editor has assembled research papers "to illustrate the formation of linkages which may bridge the gap between research and policy." Unfortunately, most, if not all, policy makers would lose patience before reading too far into these studies because of jargon, detailed methodological discussion, and the sophistication and complexity of data presentation.

Nevertheless, for researchers involved in policy making the book is erudite, at times brilliant, and more important,

(continued on page 982)

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Being a physician can be hazardous

In all, 300 physicians have been murdered in the United States in the past 25 years by patients. Apparently surgeons, particularly plastic surgeons, and psychiatrists are most vulnerable. It is the patient who is unhappy about surgical results, especially in the plastic field, who tends to resort to violence. Psychiatrists are victims because many of their patients are unstable and violent. Any physician may become involved.

In some localities a demand for drugs can be more than a simple request. It is often backed up by threats and violence. Once an individual patient makes his demands known, refusal by the physician to comply may result in many different types of bodily injury. In some areas property damage, such as broken windows, smashed doors, or arson, may follow such refusal. The police advise that you should avoid any potential threat to your person and that you call them when needed. The trouble is that you must first maintain your health long enough to get to the phone! Very often if you tell the patient to leave or you will summon the police, the answer is, "Go ahead and call them." Do not attempt ejection. The police advise specifically "Don't get hurt. Give them what they want."

The trouble is that such advice does create difficulties with the authorities. The officials, who take a firm attitude about prescribing drugs under these circumstances, are not equal to these karate experts and those who are militarily trained to kill or injure.

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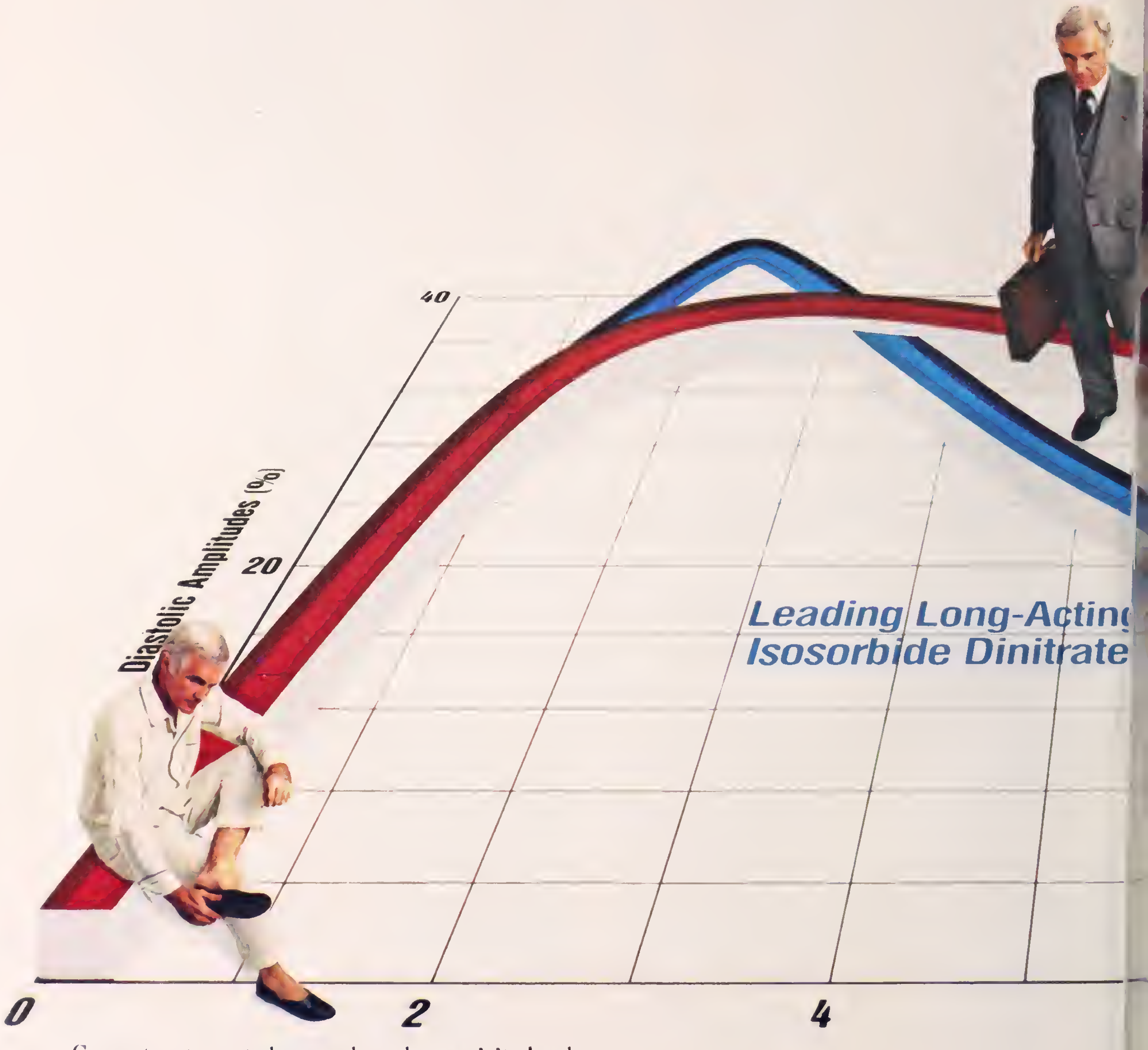

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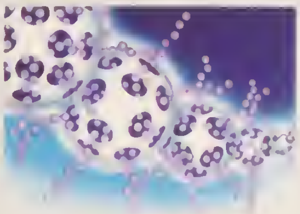

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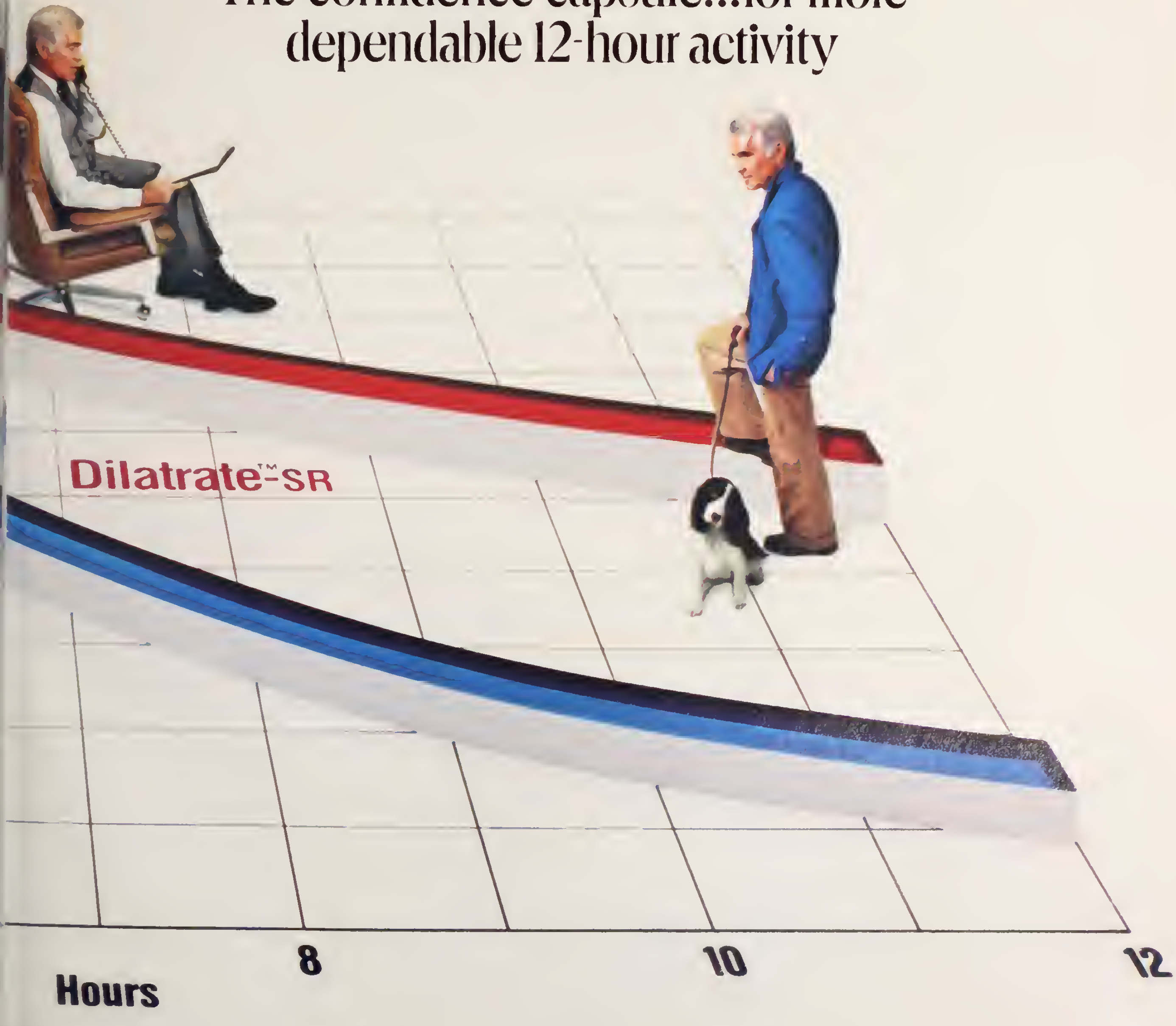

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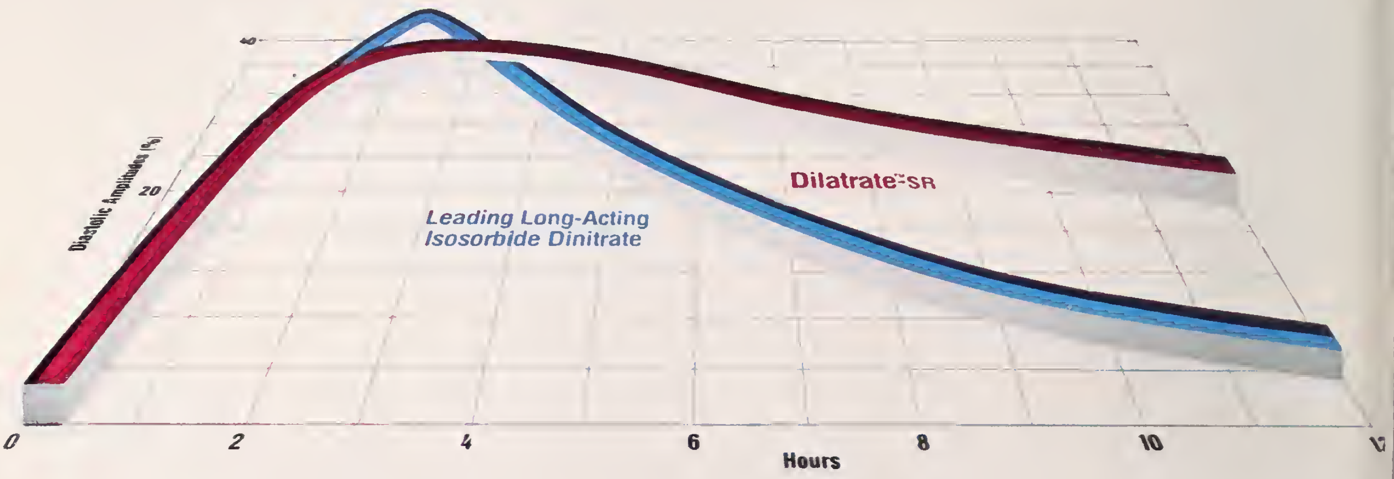

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BRIEF SUMMARY

*Indications: Based on a review of the drug by the National Academy of Sciences – National Research Council and/or other information, FDA has classified the indications as follows:

Possibly effective: For the relief of angina pectoris (pain of coronary artery disease). Dilatrate is not intended to abort the acute anginal episode, but is widely regarded as useful in the prophylactic treatment of patients with angina pectoris.

Final classification of the less-than-effective indication requires further investigation.

CONTRAINDICATION: Idiosyncrasy to this drug.

WARNINGS: Data supporting the use of nitrates and nitrites during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety.

PRECAUTIONS: Tolerance to this drug, and cross tolerance to other nitrates and nitrites may occur.

ADVERSE REACTIONS: Cutaneous vasodilation with flushing. Headache is common and may be severe and persistent. Transient episodes of dizziness and weakness as well as other signs of cerebral ischemia associated with postural hypotension may occasionally develop. This drug can act as a physiological antagonist to norepinephrine, acetylcholine, histamine, and many other agents. An occasional individual exhibits marked sensitivity to the hypotensive effects of nitrite, and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration and collapse) can occur even with the usual therapeutic dose. Alcohol may enhance this effect. Drug rash and/or exfoliative dermatitis may occasionally occur.

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Multiple Myeloma

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Buffalo, New York

From the Department of Medical Oncology, Roswell Park Memorial Institute

Multiple myeloma is a neoplastic proliferation of plasma cells producing in most instances a specific, monotypic immunoglobulin. Osteoclast-activating factor(s) secreted by the neoplastic plasma cells mediates focal and generalized osteolysis. Synthesis of normal, polyclonal immunoglobulins is decreased, and there is frequently suppression of erythropoiesis, granulopoiesis, and megakaryocytopoiesis. Recent investigations have implicated involvement of several cell populations and immunoregulatory mechanisms in the pathogenesis of the disease. Clinical features include bone pain, anemia, increased susceptibility to infection, renal insufficiency, and hypercalcemia. Less frequent but significant complications include spinal cord and nerve root compression, neuropathy, hyperviscosity syndrome, amyloidosis, and extraosseous plasma cell tumors. The diagnosis is established by demonstration of a monoclonal serum and/or urine paraprotein in association with decreased levels of normal polyclonal immunoglobulins, marrow plasmacytosis, and osteolytic bone lesions. Chemotherapy has ameliorated symptoms and prolonged survival. Melphalan, given continuously or in intermittent high dose, in combination with prednisone remains the treatment of choice. Clear benefit from multi-agent chemotherapy remains to be established. Prognosis is poor for those patients who fail to respond or relapse but several therapies now under investigation may be of benefit. The underlying principle for management of disease complications is control of the myelomatous process, although supportive measures such as plasmapheresis or local radiotherapy may be essential. Future advances depend on unravelling the extent of the myelomatous process and defining the disease's immunoregulatory mechanisms.

Multiple myeloma is a hematologic malignancy involving immunoglobulin-secreting cells of the plasmacytic series. The disease is most common in the elderly and is typically manifested by pain in the back or chest wall, anemia, renal failure, and recurrent infections. This review summarizes current knowledge of pathogenesis of the disease, clinical presentations and diagnostic techniques, and discusses treatment modalities for the disease and its related complications.

Conventional knowledge

Epidemiology. The peak incidence of multiple myeloma is in the seventh decade and in previously reported series, 2 percent or less of patients were under 40 years of age at the time of diagnosis.[1-3] However, it is increasingly common at Roswell Park Memorial Institute to see patients at a younger age. During the years between 1971 and 1978, 5 percent of patients were less than 40 years of age and 19 percent were less than 50 years of age at the time of diagnosis.[4]

Pathogenesis. The disease is classically regarded as a neoplastic proliferation of plasma cells producing in most instances a specific monotypic immunoglobulin, that is, a heavy chain of one subclass and/or a light chain of one type, referred to as the M-component. Multiple plasmacytic bone tumors and medullary plasmacytosis are present. Osteoclast-activating factor(s), distinct from the prostaglandins and from parathormone, is secreted by the neoplastic plasma cells and acts to mediate focal and generalized osteolysis.[5] Concurrent with paraproteinemia and osteolysis is a decrease in the synthesis of normal polyclonal immunoglobulins and, frequently, suppression of erthyropoesis, granulopoesis, and megakaryocytopoesis as well.

Recent investigations support the involvement of several cell populations and immunoregulatory mechanisms in the pathogenesis of multiple myeloma. Neoplastic B-lymphocytes have been demonstrated to be progenitors of the myelomatous plasma cell clone by functional and immunofluorescence studies.[6-14] The malignant B-lymphocyte clone is absent from the peripheral blood of patients with benign monoclonal gammopathy,[7,12] and quantitatively parallels the clinical activity of multiple myeloma.[6,7,15] Functional studies have also implicated T-lymphocytes and macrophages in mediation of the disease process. Suppressor activity has been demonstrated for T-lymphocytes and monocytes.[16-19] Suboptimal T-lymphocyte activity, as defined by reactivity in mixed lymphocyte culture, has been described but the clinical significance of this is unclear.[20]

The cause of suppressed normal, polyclonal immunoglobulin production in multiple myeloma is unknown. That feedback inhibition by the elevated monoclonal protein is inadequate to explain the suppression is supported by observation that 1) there is generally no depression of polyclonal immunoglobulin synthesis or decrease in the number of B-lymphocyte precursors bearing normal immunoglobulins in the benign monoclonal gammopathies;[7,12] and 2) reduced levels of polyclonal immunoglobulins occur with the nonsecretory myelomas.[21] Similarly, myelophthistic expansion is inadequate to explain the degree of immunoglobulin suppression.[16] Broder et al.[16] and Paglieroni and MacKenzie[22] have provided evidence for mediation of the immunodeficiency by suppressor cell populations.

Hematocytopenia is generally seen with advanced disease or following cytotoxic chemotherapy. Myelophthisis and drug-induced stem cell injury have been suggested as pathogenic mechanisms but are probably inadequate to explain this event. Hypothetical considerations are involvement of the hematopoetic stem cell in the myelomatous clone and/or suppression of hematopoetic differentiation by T-lymphocytes or macrophages.

Nonsecretory myeloma and monoclonal gammopathy of undetermined significance. Whereas most of the clinical features of multiple myeloma can be explained by the accumulation of an expanding clone of plasma cells which secrete a distinct immunoglobulin and osteolytic factor, it is clear that this cannot fully account for all manifestation of the disease. Approximately 1 percent of patients with otherwise classic multiple myeloma, as characterized by multiple osteolytic lesions, marrow plasmacytosis, plasma cell tumors, immunodeficiency, and hematocytopenia, have no or minimally detectable M-component in the serum or urine.[23] Immunofluorescence studies of plasma cells show no intracytoplasmic protein in some instances,[24–25] whereas in other cases, immunoglobulin or light chains are detectable.[24–29] Ultrastructural studies for the most part show no features to distinguish the nonsecretory plasma cells from secretory plasma cells, although in some reports a poorly developed endoplasmic reticulum is described.[24,25,29,30] The absence of protein synthesis in culture is reported by Amir et al.,[31] and Nilsson et al.[25] Mancilla and Davis[24] suggest that the nonsecretory myelomas can be divided into the true nonproducers and the nonsecretors. Immunoglobulin fragments may be produced that are rapidly degraded or are undetectable by conventional tests. It is of interest that Azar[32] describes a patient with nonsecretory myeloma who had generalized amyloidosis.

Conversely, there are a substantial number of patients in whom a serum M-component is detected in the absence of other manifestations of malignant gammopathy or other disease. It is estimated that 3 percent of persons over age 70 have "benign" monoclonal proteinemia.[33–36] In the majority, there is no progression to clinical myeloma or macroglobulinemia after a prolonged period of observation. Kyle[37] reviewed retrospectively the clinical course of 241 patients with monoclonal serum protein who had no evidence initially for multiple myeloma, macroglobulinemia, amyloidosis, or a lymphoproliferative disorder. After a five-year period of observation only 11 percent developed multiple myeloma, macroglobulinemia, or amyloidosis. It was reported that there were no clinical features to distinguish those patients who would develop malignant paraproteinemia. In general, patients with benign monoclonal gammopathy have a low concentration of serum M-component (less than 2 Gm. per deciliter of Ig(immunoglobulin)G or IgM and less than 1 Gm. per deciliter, IgA); absent or minimal light chain proteinuria (less than 1 Gm. per 24 hours); less than 5 percent marrow plasma cells; and, usually, normal concentrations of polyclonal immunoglobulins.[37,38] This distinction, however, may be less clear, as suggested by Lindström and Dahlström.[39] In their series of 44 patients with benign monoclonal gammopathy followed for an average time of four years, 39 percent had Bence Jones proteinuria and 60 percent had reduced concentrations of normal, polyclonal immunoglobulins. Immunofluorescence studies to detect monoclonal B-lymphocytes may be useful in differentiating those patients who will subsequently develop a malignant course.[7,12]

Natural history and diagnosis

Clinical manifestations. Bone pain is the most frequent symptom.[1] Pain is usually localized to the back and chest wall as a consequence of lytic erosion of the vertebral bodies, sternum, clavicles, and ribs. The pelvis and long bones may be involved. Typically, the pain is gradual in onset and is exacerbated by movement and change of position. Pathologic fracture and vertebral body compression are frequent occurrences.

Anemia. Anemia is usually present when the condition is diagnosed[1] and accounts for symptoms such as weakness, fatigue, and exercise intolerance. High output cardiac failure or angina pectoris may occur if the degree of anemia is severe. Gastrointestinal bleeding, secondary to plasmacytic infiltration of the gastric or bowel mucosa,[40–42] and uremia may contribute to the anemia. Pancytopenia is an anticipated complication of cytotoxic chemotherapy and radiation during the course of the disease. Thrombocytopenia[1] and/or coagulation abnormalities[43–45] predispose to easy bruisability, epistaxis, and gingival bleeding.

Infection susceptibility. Increased susceptibility to infection is a consequence of deficient antibody response,[46–49] decreased synthesis of normal, polyclonal immunoglobulins,[11,46,47] and granulocytopenia. Decreased granulocyte adherence to nylon fiber columns,[50,51] abnormal inflammatory responses in skin window studies,[45,51,52] impaired phagocytosis,[45] and deficiency of the first component[51] and fourth component[50,51] of complement have been reported, although the association of these abnormalities with an increased risk of infection has not been established.[50] Recurrent bacterial infections, particularly of the respiratory tract and sinuses, urinary tract, skin, and meninges are characteristic.[53,54] *Diplococcus pneumoniae*, *Staphylococcus aureus*, and the gram-negative pathogens are the most common infecting organisms.[46,49,55] Viral infections, particularly herpes zoster, are also frequent.[1,54] Fever, in the absence of evidence for infection, is unusual[1] and indicates a poor prognosis.[53]

Renal disease. Renal disease is a characteristic concomitant of multiple myeloma. Tubular dysfunction with impaired concentrating ability and defective acidification with or without a decrease in the glomerular filtration rate is present in patients with urinary excretion of light chain immunoglobulins.[56] DeFronzo et al.,[56] and others[57,58] have provided evidence to suggest that the light chains are directly toxic to the renal tubules. This is in contrast to the previous concept that the renal insufficiency of "myeloma kidney" was a consequence of tubular plugging by light chain precipitates. Renal insufficiency may also develop secondary to infection, hypercalcemia and hypercalcuria, hyperuricemia, amyloidosis, and interstitial infiltration by myeloma cells. Nephrotic syndrome is most suggestive of associated amyloidosis, since significant nonlight chain (nonselective) proteinuria implies glomerular damage.[59,60] Fanconi's syndrome, characterized by glucosuria, aminoaciduria, phosphaturia, and renal tubular acidosis of the proximal type may occur.[61–63] Acute renal failure may be superimposed on chronic disease by dehydration, by use of intravenous pyelographic dyes, nephrotoxic antibiotics, hypercalcemia, or as a complication of the hyperviscosity syndrome.

Hypercalcemia. Hypercalcemia is present in about one third of patients at diagnosis,[1] and frequently complicates the course of the disease. Initial symptoms are anorexia, nausea, vomiting, polyuria, polydipsia, lethargy, and somnolence. Acute renal decompensation as well as profound mental obtundation or coma may result from severe hypercalcemia. The onset of hypercalcemia demands prompt and aggressive treatment.

Hyperviscosity syndrome. Although most typical of IgM macroglobulinemia, the hyperviscosity syndrome occurs in a substantial number of patients with IgA and IgG_3 myeloma.[64–70] Symptomatic hyperviscosity usually develops when the serum IgG component is greater than 5 Gm. per deciliter,[71] or the IgA component is greater than 3 Gm. per deciliter.[68] The level of M-component required to produce symptoms is less for the IgA paraprotein because of the higher intrinsic velocity, greater axial ratio, and tendency for IgA proteins to polymerize.[64,68–70] Bleeding diathesis results from the increased blood viscosity, the increased plasma volume, and interference by the paraprotein of platelet and clotting factor function.[43–45] Circulatory and neurologic symptoms such as slowed mentation, visual obscuration, headache, and ataxia are produced, and renal insufficiency may be exacerbated.[70] Infrequently patients may develop cold tolerance, including Raynaud's phenomenon, urticaria, purpura, skin ulcerations, and acrocyanosis as a result of a cryoglobulinemia.[1,72,73]

Neurologic sequelae. Spinal cord and nerve root compression are common neurologic sequelae of multiple myeloma and occur consequent to vertebral body collapse or compression by epidural and paraspinal plasmacytomas.[74] Cranial nerve palsies are unusual but may be caused by retro-orbital plasmacytomas.[74] Intracranial tumors are rare and generally represent extension of osseous disease.[74] Carpal tunnel syndrome from amyloid infiltration of the flexor retinaculum is the most common form of neuropathy associated with multiple myeloma although diffuse sensorimotor neuropathy, diffuse sensory neuropathy, and autonomic neuropathy may occur with or without amyloid infiltration of involved nerves.[74,76–78]

Other findings. Amyloidosis was reported in 61 of 869 patients with multiple myeloma reviewed by Kyle,[1] although the actual incidence was thought to be higher because histologic studies for amyloid were done only in those patients with suggestive symptoms or physical findings. Weakness, fatigue, and often severe weight loss are the most common symptomatic manifestations.[78] Lightheadedness and syncope secondary to orthostatic hypotension, and symptoms of sensorimotor neuropathy, particularly carpal tunnel syndrome, are frequent.[78] Symptoms of congestive heart failure occur in approximately 30 percent of patients with multiple myeloma and amyloidosis and tend to be refractory to treatment.[78] Severe cardiac arrhythmias may be precipitated by the administration of digitalis glycosides.[78]

Extraosseous plasma cell tumors or diffuse organ infiltration with plasma cells may occur during the course of multiple myeloma.[54,79] Symptoms are referable to compression of adjacent structures or to ulceration of gastrointestinal tumors with bleeding. The patient may rarely show a subcutaneous mass. Tumor nodules may involve the parenchyma of the lung, liver, spleen, lymph nodes, or other organs, but are usually asymptomatic.[54] Diffuse infiltration of the viscera is generally associated with advanced disease.[79] Wiltshaw[79] has reviewed extensively the clinical presentations and natural history of plasmacytoma and solitary myeloma of bone. The former tend to occur primarily in the nasopharynx or gastrointestinal tract and spread to adjacent soft tissue and lymph nodes. When osseous metastasis does occur, it is random and frequently to sites of hematopoetically inactive marrow. The response of primary plasmacytoma to conservative treatment with surgical excision and/or radiotherapy is good and prolonged survival is common.[79,80] The solitary myeloma of bone, in contrast, is probably an atypical presentation of multiple myeloma.[79,81]

The association of multiple myeloma with a history of prior inflammatory disease or immunologic disease has been postulated. Isolated case reports document the coincident occurrence of multiple myeloma and systemic lupus erythematosis, but there is no evidence for a significant correlation.[54,82–85] Of significance, however, is a retrospective study by Schafer and Miller[86] suggesting an association of preexistent gastrointestinal disease, specifically biliary tract disease, and chronic respiratory disease with the development of IgA myeloma.[86] As these anatomic sites are notable for a predominance of IgA-secreting plasma cells, an etiologic correlation was considered. A similar correlation of chronic inflammatory disease and the development of multiple myeloma was reported by Isobe and Osserman,[3] although patients in this study were not characterized by immunoglobulin type.

Physical examination. Abnormal physical findings at the time of diagnosis may be rare. Pallor, tachycardia, hyperdynamic pulses, and signs of congestive heart failure may be present with severe anemia. Skin manifestations are uncommon and when present are generally limited to petechiae, ecchymoses, and purpura. Similarly, plasma cell tumors are uncommon but when present appear as bulky, subcutaneous masses. Bleeding from the nares or gingiva may be evident and the stool guaiac test for occult blood may be positive. Splenomegaly and lymphadenopathy are unusual except in patients with IgD myeloma.[87] The liver may be palpable but is rarely massively enlarged unless there is associated amyloidosis.[78] Localized bone tenderness at sites of osteolytic involvement, or severe pain on movement and crepitation associated with pathologic fracture, may be elicited. Vertebral body collapse results in localized tenderness, splinting and paravertebral muscle spasm, loss of height and kyphoscoliosis. Pain on maneuvers such as bending and straight-leg raising, in association with pain radiating in a nerve root distribution, is indicative of radiculopathy. Motor involvement, as a consequence of cord compression or anterior root impingement, produces weakness, muscle atrophy, areflexia, fasciculations, and stasis edema. Loss of sphincter tone implies compression of the cord or cauda equina. The carpal tunnel syndrome is characterized by tenderness on pressure over the carpal ligament and sensorimotor changes in the distribution of the median nerve. Sensorimotor or sensory neuropathy of the lower extremities is also common. Mental obtundation may be associated with severe hypercalcemia or a hyperviscous state. Associated physical findings of the hyperviscosity syndrome include dilatation and tortuosity of the retinal veins, often with papilledema and retinal hemorrhage; evidence of circulatory failure; nasal and gingival bleeding; and petechiae, ecchymoses, and telangiectasias.

Laboratory findings. Normochromic, normocytic anemia is frequently present at the time of diagnosis.[1] The level of hemoglobin may be lower than the red cell mass because of plasma volume expansion if the concentration of paraprotein is high.[67,68] Leukocytes and platelets may be slightly decreased.[1] Rouleaux formation on the peripheral smear is characteristic. The peripheral smear may show plasma cells. An absolute plasma cell count of 2,000 per cubic millimeter or greater is diagnostic of plasma cell leukemia.[53] A leukoerythroblastic smear is seen in about two thirds of patients with plasma cell leukemia.[88] The erythrocyte sedimentation rate is generally elevated but may be normal.[1]

Serum studies. The characteristic chemical abnormality of the serum is a monoclonal elevation of the globulin protein fraction, usually with reduction of normal immunoglobulins. However, diffuse hypoglobulinemia occurs in instances of light chain paraproteinemia. Albumin levels are often decreased. Other frequently detected abnormalities include hypercalcemia, hyperuricemia, elevation of transaminase and lactic dehydrogenase levels, and increased blood urea nitrogen and creatinine. Elevation of the alkaline phosphatase usually implies liver disease.[1] Cryoglobulins, usually monoclonal IgG or IgA active against polyclonal IgG, may be detected.[89–91] Beta-2 microglobulin, a protein with homology to the constant region of various human immunoglobulin polypeptide chains, may be strikingly elevated.[92] A patient with calcium-binding paraprotein and a normal ionized serum calcium level despite profound hypercalcemia has been described.[93]

Marrow studies. Random bone-marrow aspiration typically shows 10 percent or more atypical plasma cells. However, marrow involvement is focal so that repeated aspirations may be necessary to confirm the diagnosis. Marrow biopsy often reveals sheets of atypical plasma cells. The number of plasma cells in a given sample shows no correlation with the extent of disease.[53] Morphologically, the plasma-cell population may vary from mature-appearing cells to large, anaplastic cells. In the well differentiated variant, the plasma cells have an intensely basophilic cytoplasm, an eccentric nucleus with a perinuclear halo, and, frequently, prominent nucleoli. In poorly differentiated myeloma, the plasma cells are pleomorphic, often with large, multinucleated cells, and there is a high degree of nuclear-cytoplasmic asynchrony.[32,94] Lymphocytoid variants have been described.[32,95] Flaming plasma cells with deep acidophilia in the cytoplasmic margins due to glycoprotein accumulation in dilated cisternae are characteristic of IgA myeloma.[32] Intranuclear and intracytoplasmic inclusions including small Russell bodies are common.[32,96] Marrow biopsy shows myelofibrosis in some cases.[53] Megaloblastic erythroid maturation has been described.[53]

Immunoglobulin-laden Gaucher-like macrophages may be numerous in the marrow sample.[97,98] Cytochemical stain for acid phosphatase is strongly positive in myelomatous plasma cells in contrast to normal lymphoid cells and to plasma cells in benign monoclonal gammopathy.[99]

Electrophoresis. The monoclonal serum protein is demonstrated by electrophoresis. On the cellulose acetate strip, IgG and IgA M-components appear as dense bands in the beta-to-gamma region. These bonds are translated to spikes in the corresponding regions of the densitometer tracings. IgD and IgE M-components occur in low concentration and produce only a small deflection of the densitometer tracing so that examination of the cellulose acetate strip is necessary.[100] Light chain paraproteins are not detected by serum electrophoresis except in instances of associated renal failure when a small band may be seen or in instances where the light chains polymerize.[100,101]

Immunoelectrophoresis is used to classify the M-component. The serum proteins are separated by gel electrophoresis, and antisera to the immunoglobulin subclasses and light chains are diffused into the gel with precipitation arcs resulting. Quantification may be accomplished by radial immunodiffusion, although this method is less reliable than standard electrophoresis if the serum concentration of the M-component is high.[100] Radial immunodiffusion is of value in demonstrating reduced concentrations of normal immunoglobulins. Most M-components are structurally similar to normal immunoglobulins. In some instances, however, M-components with large deletions in the polypeptide sequence and immunoglobulin half-molecules are detected.[75,102–106] Instances of biclonal gammopathies have also been reported.[107–111]

Urine protein electrophoresis should be performed in all patients suspected of having myeloma. If the total urinary protein excretion is less than 1 Gm. per 24 hours, the sample should first be concentrated. Light chains appear as narrow bands in the gamma region. Infrequently, whole immunoglobulin molecules or fragments are detected in the urine.[102–104] In one case report, an IgG fragment homologous to the serum M-component was excreted in the urine noncovalently bound to beta-2 microglobulin.[112] Quantification of urinary protein excretion is of value diagnostically and in following responses to treatment, particularly in cases of light chain myeloma. The dipstick protein indicator used for routine urinalysis requires an anionic protein to produce the colorimetric change and does not detect the cationic light chain immunglobulins.[113] The heating and filtration test for Bence Jones protein is unreliable.[100]

Radiographs and scans. The skeletal lesions of multiple myeloma appear radiographically as punched-out radiolucent areas without associated osteoblastic reaction. Fractures and vertebral body collapse are commonly detected. Skeletal findings in some patients may be limited to generalized osteopenia. Rarely, osteoblastic lesions are detected, but such lesions are usually associated with a reparative process following fracture or radiotherapy or indicate a secondary disease process such as Paget's disease or metastatic carcinoma. Ten to 15 percent of patients with multiple myeloma will show normal results of a skeletal survey.[1]

The common sites of osseous involvement at the time of diagnosis are the spine, ribs, sternum, and clavicles. The skull, humeri, fermora, and pelvis are frequently involved. Less commonly, lesions are detected in the proximal radius, ulna, tibia, or fibula. Wiltshaw[79] suggests that the rarity of detecting lesions at distal sites may be related to the frequency at which such sites are x-rayed. Therefore, skeletal survey should include all long bones.

The ^{99}technetium phosphate bone scan is of limited value in the evaluation of skeletal disease in multiple myeloma since lesions are purely osteolytic. However, the technetium tracer may accumulate in the sites of fracture.[114] It has recently been reported that the ^{67}gallium citrate scintigram is useful for detecting sites of plasmacytoma associated with osseous abnormality and for detecting sites of intense myelomatous activity in areas of lytic disease.[115] Computerized transaxial tomography is useful in evaluating sites of suspected mass lesions, including the epidural space.

Prognostic factors. Several factors are of prognostic significance. The initial tumor burden at the time of diagnosis is correlated with response to treatment and survival. A clinical staging system, based on in vitro determination of M-component production, has been devised by Durie and Salmon.[116] Tumor load is correlated with the degree of anemia, the serum calcium level, the extent of osteolytic lesions, the level of serum M-component, and the degree of Bence Jones proteinuria when the patient is first examined. Patients are further classified as to the degree of renal insufficiency. Additional factors shown to correlate with response to treatment and survival are the performance status, serum albumin level, and the paraprotein type.[117–125] Particularly notable is the shorter survival for patients with lambda light chain myeloma.[119–123] Shustik, Bergsagel, and Pruzanski[122] were unable to explain the shorter survival of patients with lambda myeloma by a difference in response to cytotoxic chemotherapy or a difference in other known prognostic factors. A greater degree of proteinuria in patients with lambda myeloma,[120] or a higher proportion of patients with lambda myeloma who excrete light chains in the urine,[126] may explain the poorer survival rate. DeFronzo et al.[56] have shown that the magnitude of light chain proteinuria strongly correlates with the degree of renal insufficiency. Poorer response to chemotherapy and shorter survival for patients with IgG lambda myeloma as compared to IgG kappa myeloma have been described.[124,125] Patients with plasma cell leukemia generally have poor response to treatment and short survival,[88] although an exceptional case responds well.[127] The presence of systemic amyloidosis indicates a poor prognosis.[78]

Treatment

Chemotherapy. Chemotherapy has ameliorated symptoms and prolonged survival in patients with multiple myeloma. Treatment with oral melphalan, given intermittently in high dose or continuously in low dose, in combination with prednisone produces objective tumor regression in approximately 50 percent of patients, and median survival is increased to about 24 months overall and to 36 months for responders.[128] Similar response rates and prolongation of survival are achieved with other alkylating agents or nitrosoureas.[129–132]

To date, no clear benefit of multi-agent therapy for initial treatment has been demonstrated. The Cancer and Leukemia Group B[133,134] reported an improvement in the number of responders, but not in survival, for patients treated with the four-agent combination MCBP—melphalan, cyclophosphamide, BCNU(1-3-bis(2 chloroethyl)1-nitrosourea), and prednisone—as compared to patients treated with melphalan and prednisone. A subset of patients with advanced disease was identified who did have a significant increase in survival with the four-agent combination MCBP, leading the authors to suggest that selection of optimal therapy may depend on the extent of disease.[134] In this study, melphalan was administered intravenously to the multiple-alkylator group, but orally to the melphalan-prednisone group, with a potential influence on outcome. A randomized study comparing oral and intravenous melphalan was undertaken, and while increased toxicity was demonstrated for the group who received intravenous melphalan, survival was prolonged for patients with low tumor loads who received the drug intravenously.[135] The Southwest Oncology Group compared multiple-alkylating-agent regimens with a previous control group treated with melphalan and prednisone and found no advantage for either response or survival.[136] In the same study, the addition of vincristine to melphalan, adriamycin, and prednisone, given in cycles every three weeks, was shown to increase response rate and prolong survival. No benefit was found for the addition of adriamycin to an alkylating agent and prednisone. Case, Lee, and Clarkson[137] reported a significantly increased response and prolongation of survival comparing MCBP combined with vincristine to previous controls treated with melphalan and prednisone. The improved survival was primarily attributable to a reduction in the number of early deaths. In this study, however, survival curves were calculated from the time of diagnosis rather than from the time treatment was initiated. In a randomized study comparing sequential, alternating, and combined therapies with melphalan, cyclophosphamide, and BCNU conducted by Bergsagel et al.,[123] no subset of patients who responded better to multiple alkylators could be identified. Results are pending of randomized studies comparing multiple alkylating agents with and without adriamycin to melphalan-prednisone, and sequential alkylating agents with vincristine and adriamycin to melphalan-prednisone.

Continuation of alkylating agents and prednisone after the initial reduction in tumor cell load has been the standard approach in the treatment of multiple myeloma. The Southwestern Oncology Group investigated the efficacy of various regimens for maintenance therapy (melphalan-prednisone, BCNU-prednisone, MCBP, and azathioprine-prednisone with intermittent intensification with MCBP) and found no difference in remission duration or survival.[136] More recently it was reported that there was no difference in survival for patients when maintenance therapy was discontinued after 12 months if a greater than 75 percent reduction in tumor cell load had occurred.[138] Whether the addition of cycle-active agents after the initial tumor response will improve remission duration remains to be determined. Of particular concern regarding the continuation of alkylating-agent chemotherapy once the initial tumor response has occurred is the striking incidence of refractory sideroblastic anemia and acute nonlymphocytic leukemia in patients receiving prolonged treatment.[123,139–141]. The actuarial risk for nonlymphocytic leukemia is calculated to be 17.4 percent at 50 months by Bergsagel et al.[123]

Patients who respond initially to an alkylating agent and prednisone and relapse while off therapy frequently respond to the same drug regimen or to a different alkylating agent and prednisone. Patients who relapse during treatment or who fail to respond to initial treatment have a poorer prognosis but may respond to adriamycin,[142,143] a combination of adriamycin and BCNU,[144] or a combination of BCNU, cyclophosphamide, and prednisone.[125] New chemotherapeutic agents, hemibody radiation, whole-body radiation, and interferon are currently being investigated for the treatment of patients with refractory disease.[145–148]

Management of complications

Hypercalcemia. An elevated serum calcium level poses a severe threat to the patient with multiple myeloma. The acute management is forced calciuresis with saline infusion and furosemide. Administration of steroids will inhibit skeletal mobilization of calcium[149] and enhance gastrointestinal calcium loss. Mithramycin may be useful,[150] but it has the disadvantage of hematopoetic, hepatic, and renal toxocity. Calcitonin is useful in an acute condition,[151] but its use for long-term control of hypercalcemia is limited since patients generally become refractory to the hypocalcemic effects within several weeks. The administration of oral phosphates for chronic control of hypercalcemia carries a risk for patients with compromised renal function. In general, treatment of the underlying disease with cytotoxic chemotherapy is the best means for long-term control of hypercalcemia.

Bone-sparing regimens such as administration of fluoride or fluoride and calcium are probably ineffective.[152,153] Of potential use, however, are the diphosphonates. Dichloromethylene diphosphonate (Cl_2MDP) and 3-amino-1-hydroxypropylidine-1, 1-biphosphonate (ADP) are pyrophosphate analogues that act to inhibit osteoclast activity and thereby decrease skeletal mobilization of calcium.[154,155] There is relative sparing of new bone formation with Cl_2MDP.[154] These agents may prove useful both for long-term bone sparing and for the management of hypercalcemia. In the absence of evidence for prostaglandin mediation of hypercalcemia in multiple myeloma, there is no expected benefit for the use of prostaglandin inhibitors such as indomethacin.[156]

Renal disease. The underlying principle for the management of renal disease is control of the myelomatous process. Recent investigations suggest that the light chain immunoglobulins, produced in excess in multiple myeloma, have a direct toxic effect on the renal tubular cells.[56–58] Treatment of multiple myeloma with cytotoxic drugs and steroids has been shown to have a favorable influence on the course of renal disease.[157] Solomon[158] has demonstrated that prednisone reduces the urinary excretion of light chain immunoglobulins independently from other lympholytic agents and also demonstrated an inhibition of light chain secretion when plasma cells were cultured in vitro with prednisone. Similarly, plasmapheresis for removal of immunoglobulins has been shown to reverse acute renal failure in multiple myeloma.[159,160]

Patients who develop acute renal failure can often be managed successfully with intermittent, long-term hemodialysis in conjunction with melphalan and prednisone chemotherapy. In some instances, prolonged survival results.[161] This aggressive approach appears preferable to management of the acute condition with peritoneal dialysis in which case most patients die of uremia within several weeks.[161] Plasmapheresis or plasma exchange should be considered as adjuvant treatment.

Supportive measures for patients with normal to moderately compromised renal function include adequate hydration to ensure a brisk urine flow; hypouricemic agents, if indicated; management of hypercalcemia; and careful use of nephrotoxic antibiotics and contrast dyes. Patients with Fanconi's syndrome require replacement of alkali and electrolytes. Chemotherapy is in general of no value for amyloidosis associated with multiple myeloma. Recent reports, however, suggest some value for the use of penicillamine in conjunction with melphalan and prednisone.[162,163]

Hyperviscosity. Plasmapheresis is effective in lowering the serum viscosity and controlling the symptoms of the hyperviscosity syndrome until the paraproteinemia can be adequately controlled by cytotoxic chemotherapy.[64,65,68,164] The cell separator is the most reliable means for plasmapheresis. In those patients in whom venous access is difficult or in whom plasmapheresis is technically difficult because of catheter clotting, the insertion of an arteriovenous shunt will facilitate the procedure.[164]

Amyloidosis. Chemotherapeutic measures are rarely effective in reversing the amyloid process associated with multiple myeloma.[78,165] Control of the multiple myeloma may prevent progression of amyloidosis. Penicillamine may prove to be of value.[162,163]

Bone disease and plasmacytoma. Radiotherapy is of value for the palliation of localized bone disease, but should not be used in preference to effective chemotherapy for control of the disease. Complications such as transverse myelopathy and pulmonary fibrosis may result from overlap of radiation fields, and the subsequent administration of chemotherapy may be limited by marrow hypoplasia. A tumor dose of 2,000 rad or less is generally effective for palliation.[53] Impending fracture of a long bone is an indication for radiotherapy. In such instances, internal fixation of the bone may also be necessary.

Compression of the spinal cord or cauda equina requires immediate radiotherapy or laminectomy if symptoms are to be reversed and further neurologic damage prevented.[166–168] In early cases, radiotherapy alone may be adequate. Doses of 3,000 to 4,000 rad fractionated over a two- to four-week period are usually given.[169] For more severe but potentially reversible neurologic impairment, laminectomy followed by radiotherapy is indicated. Mechanical support with bone cement or metal plates has been effectively employed.[166] High-dose steroids should be given during radiotherapy to prevent cord edema.[169] Curative radiotherapy of 4,000 rad over three to four weeks is the treatment of choice for primary plasmacytoma and solitary myeloma of bone.[53,80,81] In the latter condition the indication for subsequent chemotherapy is unresolved.[81]

Future perspectives

Significant advances in the treatment of multiple myeloma depend on investigations aimed at unravelling the extent of the myelomatous process and defining the immunoregulatory mechanisms of the disease. Identification of the ultimate progenitor cell—the myeloma stem cell—will permit drug sensitivity studies directed at eradication of the disease. A soft agar assay for the human myeloma colony-forming cell (M-CFUc), developed by Hamburger and Salmon,[170–171] has been applied in drug sensitivity studies and preliminary results indicate good correlation between in vitro and in vivo drug sensitivity and resistance. The development of a sensitive radioimmunoassay specific for myeloma proteins is of potential application for detecting residual tumor cells following initial treatment, for kinetic studies, and for evaluation of treatment response.[172] Radiolabeled thymidine kinetic studies may have application for prognosis and as a means to follow treatment response.[173] The development of specific antimyeloma antisera to nonidiotypic determinants will provide an additional means for delineation of the progenitor clone.[174–176.] Specific antimyeloma antisera could be utilized for in vitro removal of myeloma clonogenic cells in autologous bone marrow transplantation. Elucidation of the immunoregulatory mechanisms will perhaps provide insight as to eradication of the disease by immunomodulation and to means of palliation of the immunodeficiency and hematocytopenia.

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Hypnotic drugs held useful as treatment for insomnia

Hypnotic drugs—sleeping pills and tranquilizers—still play an important part in the short term management of insomnia. Curbing of these useful medications because of their potential for abuse is not justified.

These are the conclusions of a report from the American Medical Association's Council on Scientific Affairs, published in the February 20 Journal of the AMA.

Drug abuse will be with us until its root causes are understood and addressed, and a curb on hypnotic drugs would merely send drug abusers to other products, the AMA points out. And many individuals would be deprived of a useful medication.

The pills and medicines are short term answers to insomnia and should be used only for two to six weeks, the AMA Council declares. Choice of drugs must be tailored by the physician to the individual patient. For some, the older sleeping pills (barbiturates) might be best. For others, the more recent tranquilizers (benzodiazepines) such as Valium and Librium might be preferred.

For long term use in those with persistent, chronic insomnia, the AMA recommends that physicians try nondrug treatment. This might encompass psychotherapy and behavioral therapy. The physician can offer a variety of approaches to help his patients get to sleep.

Nondrug treatments include advice to establish rigid times for retiring and arising from bed; avoid naps; avoid stimulants, including coffee and tea, in the afternoon or evening; use the bed only for sleep or sexual activity; pursue some program out of bed at times of wakefulness; establish a regular program of daytime exercise, and plan evening activities conducive to relaxation, such as hobbies, rest, and hot milk.

Sleeping pills have had bad press for years because of their potential for abuse, particularly in suicides. Prescribing of all hypnotic drugs has fallen by 39 percent in the U.S. in recent years. Sleeping pill prescriptions have dropped by 77 percent, while use of the tranquilizers has increased.

Insomnia is a symptom of some discomfort, physical or emotional, and is not in itself a disease, the AMA points out. It is important to find and understand the cause in each individual, to help work out a treatment program.

Actually, insomnia is not routinely treated with a drug. One study found that only about one half of individuals consulting their physicians for insomnia receive a prescription for a hypnotic.

Chairman of the AMA Council on Scientific Affairs is Rogers J. Smith, M.D., of Portland, Oregon. Richard J. Jones, M.D., is secretary. Copies of the complete report are available from Dr. Jones at the AMA, 535 N. Dearborn St., Chicago, Ill. 60610.

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Oral/Sublingual Tablets Cardilate (Erythrityl Tetranitrate) may be administered either sublingually or orally Therapy may be initiated with 10 mg prior to each anticipated physical or emotional stress and at bedtime for patients subject to nocturnal attacks The dose may be increased or decreased as needed

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Reference 1 Hellerstein HK Friedman EH Sexual activity and the postcoronary patient Arch Intern Med 125 987 1970

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ONE HUNDRED YEARS
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Epidemiology of Angiosarcoma of Liver In New York State

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Angiosarcoma of the liver (ASL) is a highly malignant tumor[1] which can be caused by exposure to arsenic in pesticides[2,3] and Fowler's solution (potassium arsenite),[4-6] thorium dioxide (ThO_2—a diagnostic radiopaque medium also called Thorotrast),[7,8] and vinyl chloride monomer (VCM), a colorless gas which can be polymerized to make polyvinyl chloride (PVC) in the production of plastics.[9-15] This disorder has also been associated with inorganic copper[16] (vineyard sprayers), diethylstilbestrol,[17] and hemochromatosis.[18,19] Recently it has been suggested that more subtle types of exposure such as close residential proximity to VCM/PVC industrial complexes[20] might be important. This report examines the geographical distribution of ASL in New York State with particular emphasis on occupation and other epidemiologic characteristics which might be of importance in the etiology of this disorder.

Methods

Incidence study. This study included all residents of New York State, excluding New York City, diagnosed with histologically confirmed ASL from 1970 through 1978, who were reported to the Tumor Registry, Cancer Control Bureau, New York State Department of Health. The New York State Tumor Registry is the largest population-based registry in the world. State law requires that all diagnoses of malignancy be reported by physicians and/or hospital institutions. This nine-year study period was selected because during this time the registry established a mechanism to improve reporting of cases through periodic examinations of the percent of cases accessioned into the State Cancer Registry by death certificates only and by an ongoing survey of hospital records. Patients from New York City were excluded because cancer reporting from this area was not instituted until 1973, and at present findings are incomplete. An average annual incidence rate was calculated for the nine-year period using the 1974 population estimate (Office of Biostatistics, New York State Department of Health). Age-specific incidence rates (calculated by 10-year age groups) and an overall sex ratio (male rate to female rate) were also determined using the above population estimates. The 57 counties of New York State, excluding New York City, were divided into the seven standard health service areas (HSA), and a regional rate was calculated for each area.

Descriptive study. All residents of New York State diagnosed with histologically confirmed ASL from 1958 through 1979 and reported to the New York State Tumor Registry (including those reported from New York City from 1973 through 1979) were included in this investigation. Trained field investigators used a prepared questionnaire to obtain information from all cases (or in the event of death, their closest living relative) regarding past and present occupation, medical, familial, travel, and social histories. Particular attention was given to histories of exposure to known or suspected causative agents. In addition, specific questions were asked about residential histories in an effort to determine whether patients ever lived in close proximity (one mile or less) to industrial complexes, farms, or known dumpsites prior to being diagnosed with ASL.[21] Using information obtained from the New York State Departments of Commerce and Environmental Conservation[22] to identify known VCM and/or PVC factories and dumpsites, we plotted all places of residence of patients with ASL prior to their diagnostic dates. The urban-rural distribution of all patients at the time of diagnosis was also determined. (Urban counties are counted as those with a population of 100,000 or greater.) Medical records of all patients were reviewed to confirm 1) the diagnosis of ASL; 2) past medical histories (diagnostic procedures involving ThO_2 and drug histories); 3) place of residence, and 4) occupation at the time of diagnosis.

Results

Twenty-five cases (14 males, 11 females) of ASL were included in the incidence study. The average annual incidence rate for New York State, excluding New York City, was 0.26 per million. Annual rates ranged from 0.0 to 0.46 per million population per year during the nine-year study period, and no temporal peaks were evident. Age at diagnosis ranged from one month to 83 years, with an overall mean age of 50.5 years (males 54.1 years, females 49.6 years). Analysis of age-specific incidence rates indicated that the highest rate, 1.08 per million population, occurred in the 60-through-69-year age group. The overall male to female ratio was 1.3 to 1. HSA I had the highest average annual incidence rate of 0.40 per million population, followed by area VIII with a rate of 0.33 per million. Area V had a comparable rate to that for the state and the other four HSAs had lower rates (Fig. 1).

A total of 43 patients (male 24, female 19) diagnosed with ASL in New York State (Table I) and reported to the Registry from 1958 through 1979 were included in the descriptive study. Forty-two patients were deceased at the time of the investigation. A first degree relative (spouse, sibling, parent, or child) was interviewed regarding 37 of the 43 (86 percent) patients. Information on three patients was obtained from other close relatives and no interview was obtained for three cases (including two infants). Their ages ranged from one month to 83 years with an overall mean age of 52.7 years (males 65.5 years, females 49.1 years). There were 39 white patients, 3 blacks, and 1 Oriental. Four male patients (numbers 4, 8, 10, and 39; Table I) from Niagara and Erie counties worked in the same VC polymerization plant for a period ranging from 16 to 35 years (median 23.5 years) prior to being diagnosed with ASL. In addition, five patients, all females (numbers 5, 11, 17, 21, and 25; Table I), resided within one mile of plastic-

The geographic distribution of ASL (angiosarcoma of the liver) among residents of New York was examined with special emphasis on the epidemiologic characteristics which might be of etiologic importance in this malignancy. The average annual incidence rate for the state, excluding New York City, was 0.26 per million population. Of the chemicals associated with ASL, potential exposure to vinyl chloride appeared to be the most important factor in certain urban industrialized counties, whereas probable arsenic exposure was the major factor in rural areas. Prior thorium dioxide injections accounted for only 7 percent of the 43 patients studied. We suggest that certain chemicals structurally similar to vinyl chloride might be of etiologic importance among patients who have no documented exposure to any of the established causes of ASL.

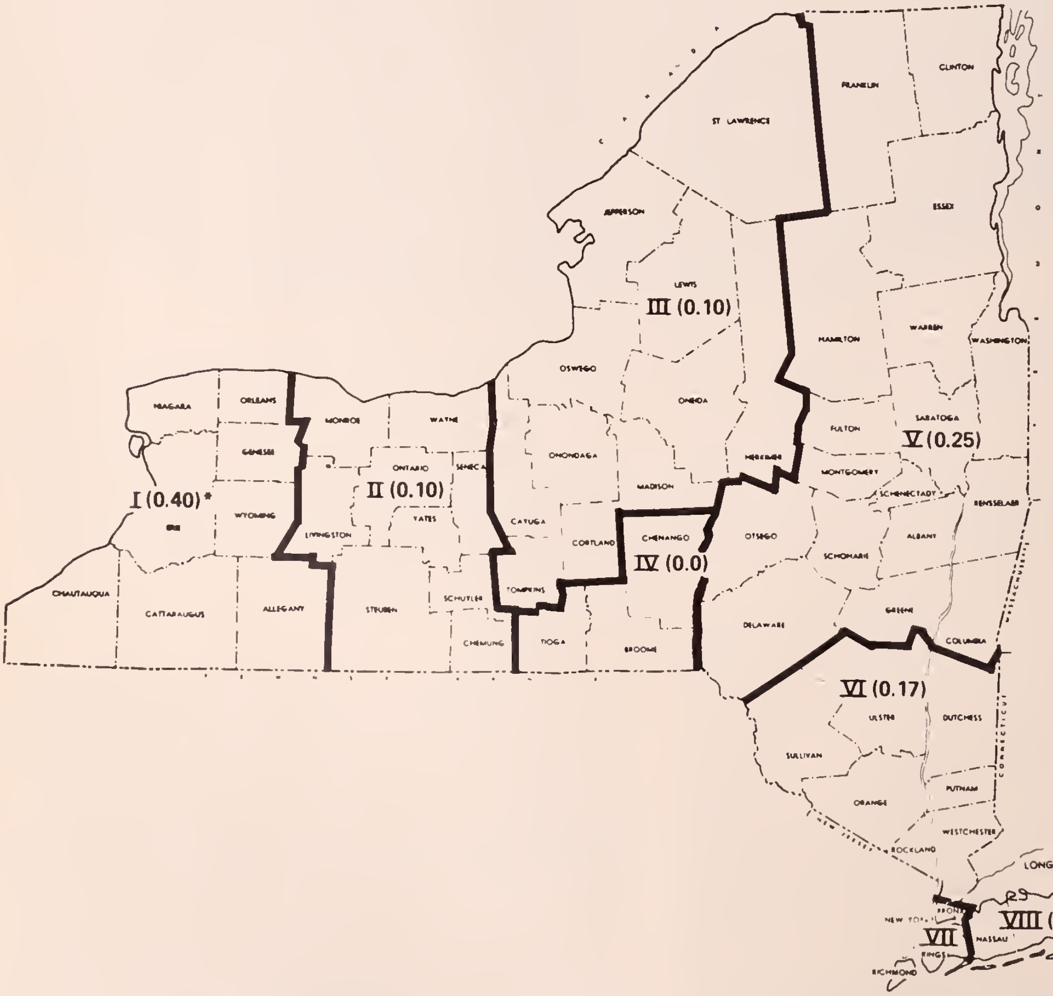

FIGURE 1. Average annual incidence rates (per 100,000 population) in the seven health service areas of New York State, excluding New York City, from 1970 through 1978.

TABLE I. Demographic data and exposure history of 43 residents of New York State with angiosarcoma of liver (1958 through 1979)

Patient Number	Age at Diagnosis	Race*	Sex	Year of Diagnosis	County of Residence	Occupational History	Probable Exposure	Possible Residential Exposure History
1	32	W	M	1958	Greene†	gardener-caretaker	As**	
2	49	W	F	1959	Westchester	secretary/housewife		
3	62	W	F	1960	Monroe	salesclerk		
4	40	W	M	1961	Niagara	chemical operator	VC	
5	40	W	F	1965	Nassau	clerk/housewife	VC	lived 4500′ from factory
6	67	W	F	1967	Erie	aircraft worker/ verifax operator		
7	52	W	M	1968	Albany	machinist/appliance repair	ThO_2	
8	54	W	M	1968	Niagara	chemical operator	VC	
9	60	W	M	1969	Nassau	secret service/ attorney		
10	60	W	M	1970	Niagara	chemical operator	VC	
11	45	W	F	1970	Erie	housewife	VC	lived 4500′ from factory
12	45	W	M	1970	Nassau	attorney		
13	18	B	F	1970	Westchester	clerk		
14	68	W	M	1971	Nassau	school principal/ chemistry teacher		
15	55	W	F	1971	Fulton†	battery filler/glove operator	As, Cu**	
16	2 mos.	W	F	1971	Westchester	infant		
17	31	O	F	1972	Nassau	bankteller	VC	lived 1500′ from factory
18	77	W	M	1972	Erie	laborer—aerospace industry & City of Buffalo		
19	64	W	F	1973	Lewis†	sewing machine operator	As	lived on farm
20	47	W	M	1973	Nassau	real estate broker	ThO_2	
21	62	W	F	1973	Niagara	clerk—chemical company/ manager—candy store	VC	lived 1700′ from factory
22	47	B	M	1973	Queens	bookkeeper	As	lived on banana farm
23	63	W	M	1973	Nassau	carpenter, cleaning and maintenance		
24	59	W	M	1973	Seneca†	minister		
25	31	W	F	1974	Erie	medical secretary/ housewife	VC	lived 500′ from factory
26	45	W	M	1974	Rockland	office worker—plastic co./executive		
27	18	W	F	1974	Brooklyn	student		
28	62	W	F	1974	Greene†	owner—clothing store		
29	65	W	M	1975	Jefferson†	report analyst—brake co.		
30	71	B	M	1975	Queens	janitor—subways		
31	73	W	M	1975	Nassau	carpenter/painter		
32	67	W	F	1975	Manhattan	film lab./contract administrator for TV		
33	1 mo.	W	M	1975	Greene†	infant		
34	43	W	M	1976	Wayne†	research chemist—photo co.	As	lived on farm
35	67	W	M	1976	Brooklyn	maintenance/cleaning		
36	75	W	M	1976	Manhattan	executive—soda co.		
37	47	W	F	1977	Richmond	housewife		
38	54	W	F	1977	Cattaraugus†	chromium chair co./ cafeteria worker		
39	65	W	M	1977	Erie	chemical operator	VC	
40	77	W	F	1977	Bronx	domestic/housewife		
41	83	W	F	1978	Suffolk	sales—radio shop		
42	46	W	M	1978	Suffolk	radio operator	ThO_2	
43	78	W	M	1979	Dutchess	dairy & fruit farmer/ truck driver	As	

* W = White, B = Black, O = Oriental.

† Rural = county containing less than 100,000 population.

** As = arsenic, Cu = copper.

producing factories for a period ranging from 8 to 62 years (median 26.8 years) prior to diagnosis. Three of these patients (numbers 11, 21, and 25, Table I) resided in Erie and Niagara counties (HSA I) and two (numbers 5 and 17, Table I) in Nassau county (HSA VIII). None of the 43 patients studied resided within one mile of a known PVC dumpsite. Thus, all nine of these patients resided and/or worked in only three urban counties.

Six patients (numbers 1, 15, 19, 22, 34, and 43; Table I) had histories of possible exposure to arsenic, primarily in the form of pesticides, and/or inorganic copper (patient 15). There were four males and two females, all residing in rural counties.

Three patients (numbers 7, 20, and 42) were injected with thorium dioxide from 28 to 30 years prior to being diagnosed with ASL (Table I). Patient 12 was diagnosed with hemochromatosis two years before the diagnosis of ASL was established, and patient 16, an infant, had a family history of hemangioma. For the remaining 23 patients (53.5 percent) we could document no known causative factor. No single occupation predominated within this group although six patients (numbers 5, 18, 23, 30, 31, and 35) worked in occupations which may have involved exposures to various solvents and degreasing agents, such as trichloroethylene.

Comment

Of the various agents associated with ASL, our observation suggests that exposure to vinyl chloride and arsenic might be the major factors. Four of our study patients had probable occupational exposure to VCM, and five resided within one mile of plastic-producing factories. Interestingly, 19 of the 43 patients (44.2 percent) resided in the four urban counties (Niagara, Erie, Nassau, and Suffolk) which contain the greatest number of VC polymerization and fabrication factories. Although this observation might be fortuitous, it is interesting that Landrigan et al.[20] described a similar situation when they reported cases of ASL among workers at two PVC fabrication plants and in people residing near these factories. Processed plastic still contains from 0.5 to 10 parts per million VCM which can be released upon heating during fabrication.[23] In addition, during the years of uncontrolled emissions, it was estimated that the average VCM exposure to the general population residing within a five-mile radius of VCM plants was approximately 17 parts per billion.[23] These findings indicate the need of further evaluating the possible importance of nonoccupational (that is, residential) exposure to VCM in the etiology of ASL.

Of the nine patients residing in rural counties at the time of diagnosis, four had probable exposure to arsenic, primarily in the form of pesticides. Fiechtner[3] reported 10 patients diagnosed in Wisconsin with the only similarity being that seven had lived on farms some time during their lives. No other exposure could be found for these individuals. These observations suggest that exposure to arsenicals might be the major factor in the etiology of ASL in rural areas. Other occupations such as glovemaking and painting might also allow for exposure to this chemical.[10] Finally, those patients who engage in gardening, regardless of whether their residence is urban or rural, may have come into contact with arsenical pesticides.

Thorium dioxide injections were documented in three of the study patients (7 percent). This is comparable with the 10 percent reported in a nationwide study by Falk et al.[24] Although this contrast medium (Thorotrast) was used for radiologic procedures from the late 1920s until the early 1950s, available evidence suggests that the incidence of ThO_2-induced ASL was still increasing in the 1970s.[24] Interestingly, patients diagnosed during this period received lower doses of this agent and have prolonged latency periods—up to 40 years from the time of injection.[24]

Finally, it must be appreciated that more than half of the patients studied had no known exposure to any of the established causes of ASL. Other chemicals, especially suspected carcinogens structurally similar to vinyl chloride (such as, chloroprene, styrene, trichloroethylene)[10] might be etiologically important. In keeping with this observation, six of our study patients were employed in industries such as aircraft work, maintenance, and cleaning where exposure to one or more of these agents was likely. There have also been reports of a possible association between anabolic steroids and ASL.[25] The use of hair sprays and pesticides containing VCM propellant can produce air concentrations as high as 400 parts per million. All of these factors should be considered in evaluating the patient with angiosarcoma of the liver.

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Survival rate improving for systemic lupus erythematosus

Medical science is learning more about a particularly stubborn and uncomfortable disease—systemic lupus erythematosus—and the survival rate of sufferers has improved markedly in recent years.

SLE (systemic lupus erythematosus) is a chronic, inflammatory disease of unknown cause affecting skin, joints, kidneys, nervous system, and often other organs of the body. The most obvious sign is a persistent skin rash with a classic butterfly pattern.

The disease strikes about one person in each 1,000 and is five to 10 times more common among females than males.

In a report in the March 6 Journal of the American Medical Association, a California research group relate experience in treating 609 patients with SLE, with a follow-up period of up to ten years.

The overall ten-year survival was 79 percent, said Edmund L. Dubois, M.D., of the University of California at Los Angeles School of Medicine. Male patients did worse than female patients. There was no basic difference in survival of blacks and whites.

One of the most serious results of SLE is kidney damage, and this was a factor in many of the fatal cases, Dr. Dubois found.

The survival rate of 79 percent was much improved over earlier results, and the California group credits improvement to closer follow-up, better nutritional status, and treatment begun at earlier stages of the disease.

"Our understanding of SLE has improved substantially over the last 30 years. While SLE initially was reported to have a 90 percent two-year mortality, more recent reports have shown much longer survival. This article represents the most cohesive group published to date. It represents the largest number ever reported by a private physician, with a follow-up report twice that of any other study," he said.

The disease progresses slowly. There is an average time lapse between first signs of the ailment and obtaining a diagnosis from the physician of around four years.

"We believe that the socioeconomic problems of patients who attend the larger city or county hospital clinics affect survival significantly. Less optimal living conditions, poor nutrition, and inferior education lead to less reliable medication administration, missed clinic appointments, greater risk of infection, and presentation with more advanced disease," Dr. Dubois said.

Role of Computed Tomography In Diagnosis of Appendiceal Disorders

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In five patients evaluated by CT (computed tomography), the correlation of CT with other radiologic studies enabled a preoperative diagnosis of appendiceal disease (mucocele, abscess, tumor). The ability of CT to measure and compare tissue densities, show the extent of the disease and its spatial relation to adjacent organs, and to locate the disease in intra- or extraperitoneal spaces facilitates diagnosis and provides excellent preoperative guidance.

The use of CT (computed tomography) in diagnosing disorders of the appendix has received little attention in the medical literature. We had the opportunity to perform CT examinations on five patients with appendiceal pathology. Although the possibility of appendiceal disease was in the differential diagnosis of right lower quadrant pathology, the correlation of CT with other radiologic studies made the preoperative diagnosis in most cases more certain.

The ability of CT to measure tissue density and to evaluate extent of disease allows for a more precise diagnosis and provides excellent preoperative guidance.

Materials and methods

Five patients with appendiceal disorders were evaluated by CT. CT results were correlated with other radiologic procedures, clinical data, and surgical and pathologic findings. All CT scans were performed on a General Electric 8800 CT body scanner (4.8 seconds scan time, 10 mm. slice thickness at 10 mm. intervals). The diameter of the pathologic process and the tissue densities were measured in each case.

All patients ingested 600 to 900 cc. of dilute (3 percent) solution of diatrizoate meglumine and sodium diatrizoate (Gastrografin) for identification of bowel loops.

Four patients were scanned with intravenous contrast material to identify the bladder and ureters. One patient had an allergic history and did not receive intravenous contrast material. One patient had a double air cystogram to improve delineation of the area of pathology.

Case reports

Case 1. A 73-year-old white male was admitted for evaluation of pruritis and painless jaundice of one week duration. The patient noticed darkening of his urine and lightening of his stool. His past medical history was uneventful.

On physical examination he had a palpable liver 2 cm. below the right costal margin.

Examination of his eyes revealed icterus and his skin appeared jaundiced. The pertinent laboratory findings showed elevated total and direct bilirubin, serum glutamic pyruvic transaminase, serum glutamic oxaloacetic transaminase, lactic dehydrogenase, and alkaline phosphatase. Urine analysis was positive for bilirubin. The patient underwent radiologic tests for evaluation of his jaundice.

Ultrasound examination was consistent with obstructive jaundice and gall stones. The pancreas was obscured by gas.

A CT scan of the abdomen revealed dilated intrahepatic radicles with no evidence of pancreatic masses. A 5 by 5 by 8-cm. cystic mass was detected in the right lower quadrant. It was extrinsic but intimately related to the cecum. The cyst had a thick calcified wall (Fig. 1A, B). The attenuation coefficient was that of a fluid-filled cyst with calcium in its wall.

The diagnosis of mucocele of the appendix was made preoperatively. A follow-up ultrasound examination limited to the right lower quadrant showed cystic mass with a thick calcified wall (Fig. 1C).

Colonoscopy suggested the presence of a submucosal cecal mass. At surgery a mucocele of the appendix was found and a right hemicolectomy was performed. There was evidence of thick, mucoid material adjacent to the small bowel, colon, and inferior surface of the liver. A small, fibrosed gall bladder with gall stones was removed. The pathologic report revealed no malignant cells in the mucocele. A small, sealed-off perforation in the mucocele explained the pseudomyxoma peritonei.

Comment. While colonoscopy suggested the presence of a submucosal cecal lesion, the CT clearly demonstrated the extrinsic location and intimate relation of mass to cecum. Thus the location and typical CT appearance secured the preoperative diagnosis of appendiceal mucocele.

Case 2. A 73-year-old white female appeared with urinary symptoms of frequency, dysuria, and gross hematuria of 20 days duration.

Vaginal examination revealed a hard mass occupying the

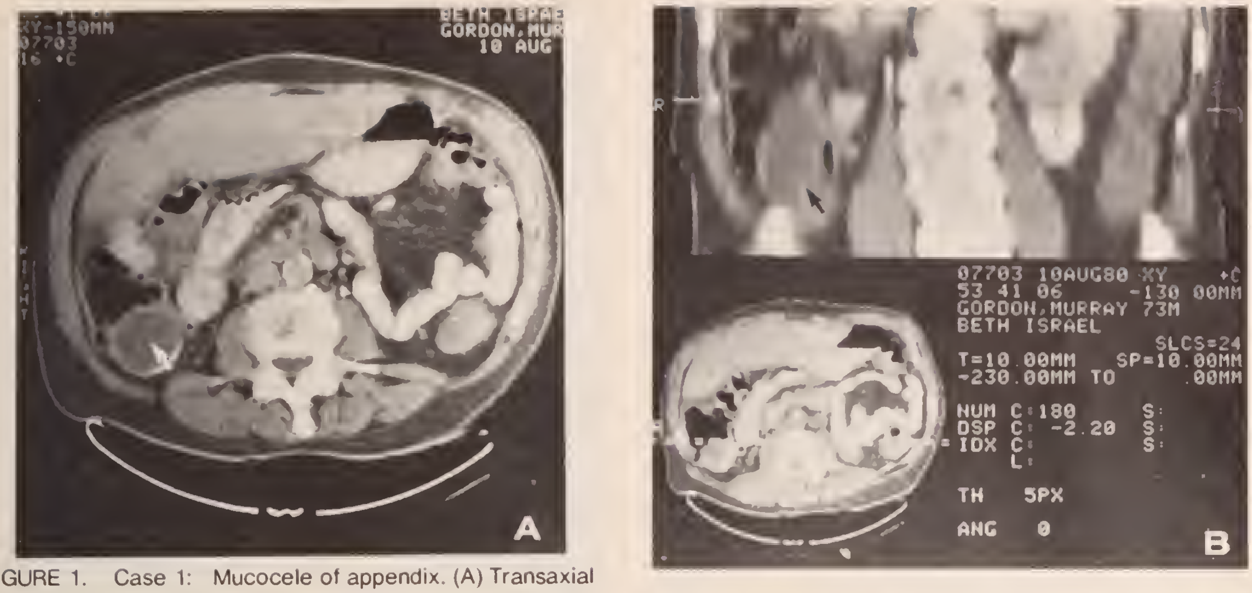
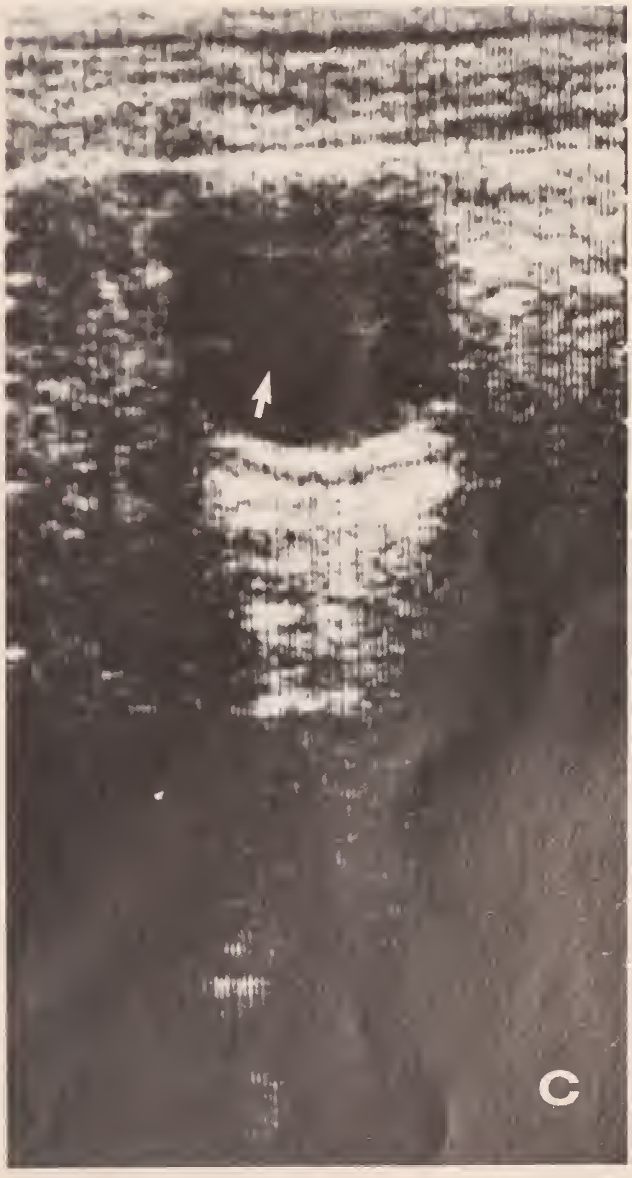


FIGURE 1. Case 1: Mucocele of appendix. (A) Transaxial and (B) coronal views. Cystic mass (arrows) with thick calcified wall extrinsic but intimately related to right colon. (C) Ultrasound examination confirms cystic nature of mass (arrow) and calcium in its posterior wall.



bladder. A urine analysis showed numerous red blood cells.

Abdominal x-ray film showed faint calcifications in the right lower quadrant.

An IVP (intravenous pyelogram) showed pelvic mass invading the right lateral wall of the bladder.

A transurethral biopsy of the mass revealed mucin-producing adenocarcinoma which contained calcifications.

CT scan showed a large irregular cystic mass with a thick wall. The mass, although predominantly cystic, contained solid components, septa, and amorphous calcifications (Fig. 2A, B). Judging by the irregularity and the configuration of the bladder wall, the mass displaced the bladder to the left and invaded the lower left wall of the bladder. The cecum, which was in close proximity and practically inseparable from the mass, showed no abnormality in contour or position. The uterus could be clearly identified and was within normal limits. The rest of the bowel showed no abnormalities.

The information obtained from the CT placed the neoplasm in the appendix rather than colon, and indeed, the following barium enema and endoscopy demonstrated an intrinsically normal cecum and terminal ilium and lack of filling of the appendix with barium.

The surgical findings correlated with the CT findings. The pathologic specimen was identified as a mucin-secreting adenocarcinoma of the appendix containing numerous areas of calcification and invading the bladder.

Comment. Adenocarcinoma of the appendix appearing with hematuria and dysuria is unusual.[1] The location of the mass on the right lateral wall of the bladder, and the biopsy results obtained during transurethral resection of bladder, as well as the presence of foul-smelling mucous material in the bladder, suggested colonic neoplasm. The CT scan localized the tumor to the appendix, rather than to the cecum.

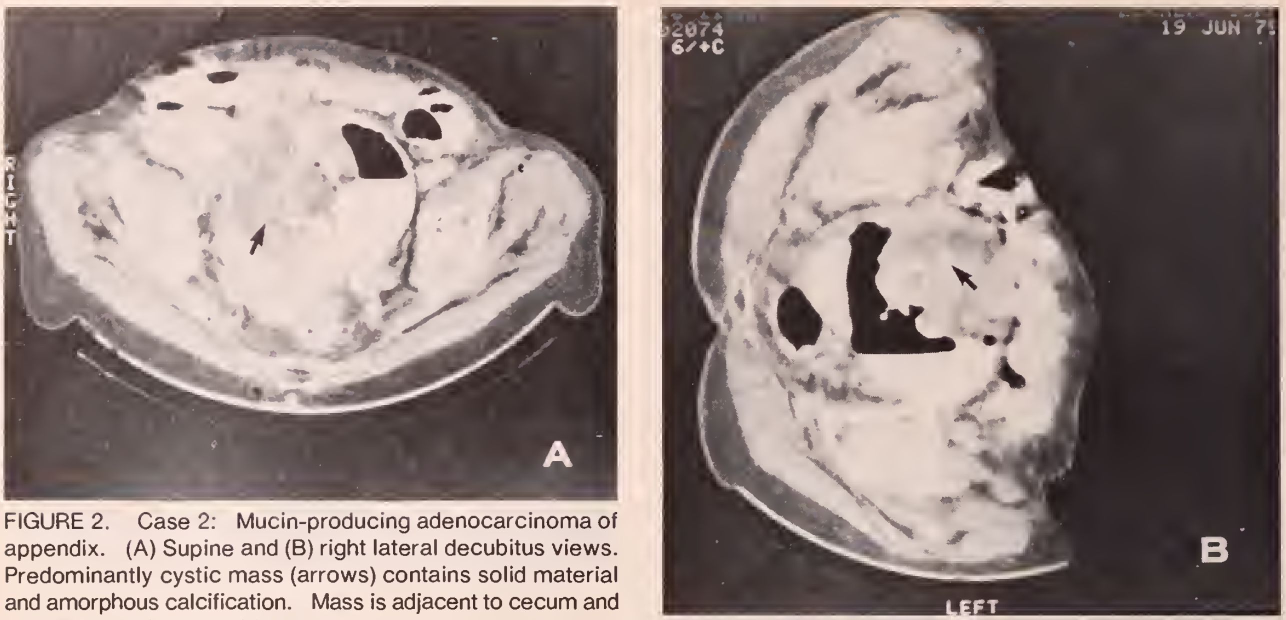


FIGURE 2. Case 2: Mucin-producing adenocarcinoma of appendix. (A) Supine and (B) right lateral decubitus views. Predominantly cystic mass (arrows) contains solid material and amorphous calcification. Mass is adjacent to cecum and invades and displaces bladder.

Although the CT in Cases 1 and 2 showed predominantly cystic masses, the presence of amorphous calcifications and solid components within the cystic mass suggested a malignant condition in the latter case.

Case 3. A 71-year-old Spanish male was readmitted for evaluation of abdominal pain of two years duration, which recently was associated with right flank and right lower quadrant pain.

Two years ago he underwent a barium enema which revealed extrinsic compression and irregularities on the lateral aspect of the descending colon. The mucosa was intact, and reflux to the terminal ilium showed no abnormalities; however, the appendix did not fill with barium. The possibility of appendiceal mass invading the colonic serosa was suggested. Unfortunately, further studies were not performed, because the patient was lost to follow-up.

Physical examination now revealed a right lower quadrant mass and marked right flank tenderness. Pertinent laboratory data included leukocytosis and a positive stool guaiac test result. During his hospital stay the patient developed fever and shaking chills.

Barium enema revealed a lobulated filling defect obstructing the flow of barium into the ascending colon. The mucosal pattern was normal. Correlation with the barium enema studies obtained two years previously suggested an appendiceal mass invading and obstructing the ascending colon.

A CT scan showed a predominantly solid mass in the region of the cecum and ascending colon. The superior, posterior, and medial components of the mass extended retroperitonealy and were predominantly of fluid consistency, displacing the right ureter anteriorly and medially causing proximal right ureteral obstruction. The mass infiltrated the right perirenal and the posterior pararenal spaces causing a marked thickening of the right laterocohal fascia and right abdominal muscles (Fig. 3).

Surgical and pathologic results confirmed the presence of a perforated appendiceal-colonic mucin-producing adenocarcinoma, as well as mucopurulent material in the retroperitoneal space.

Comment. The correlation of the barium enema and CT results led to the preoperative diagnosis of primary appendiceal mass. The CT scan accurately delineated the extension of the mass and revealed an additional retroperitoneal inflammatory collection causing right obstructive uropathy which explained the patient's symptoms.

Case 4. A 13-year-old white female appeared with periumbilical and right lower quadrant pain of 12 hours duration, and a temperature of 102°F.

Nine years ago she underwent an appendectomy followed by recurrent episodes of small bowel obstruction and reexploration for lysis of adhesions.

On physical examination she had diffused tenderness and guarding of both lower quadrants, as well as decreased bowel sounds. Laboratory data were negative except for leukocytosis.

A barium enema revealed a right colon medially displaced by an extrinsic mass containing several lucencies. The mucosa of the colon and terminal ilium was normal. CT showed an ill-defined solid mass with some necrotic areas extending upward from the right pelvis and medially displacing the ascending colon and small bowel (Fig. 4).

The diagnosis of pericolonic abscess was suggested and was confirmed at surgery. Cultures revealed gram-negative rods and the patient was placed on the appropriate antibiotics.

Comment. The correlation of the barium enema and CT findings made possible the preoperative diagnosis of appendiceal stump abscess.

Case 5. A 45-year-old Spanish female appeared with a one-month history of right lower quadrant pain radiating to the right side. Fifteen years before she underwent a

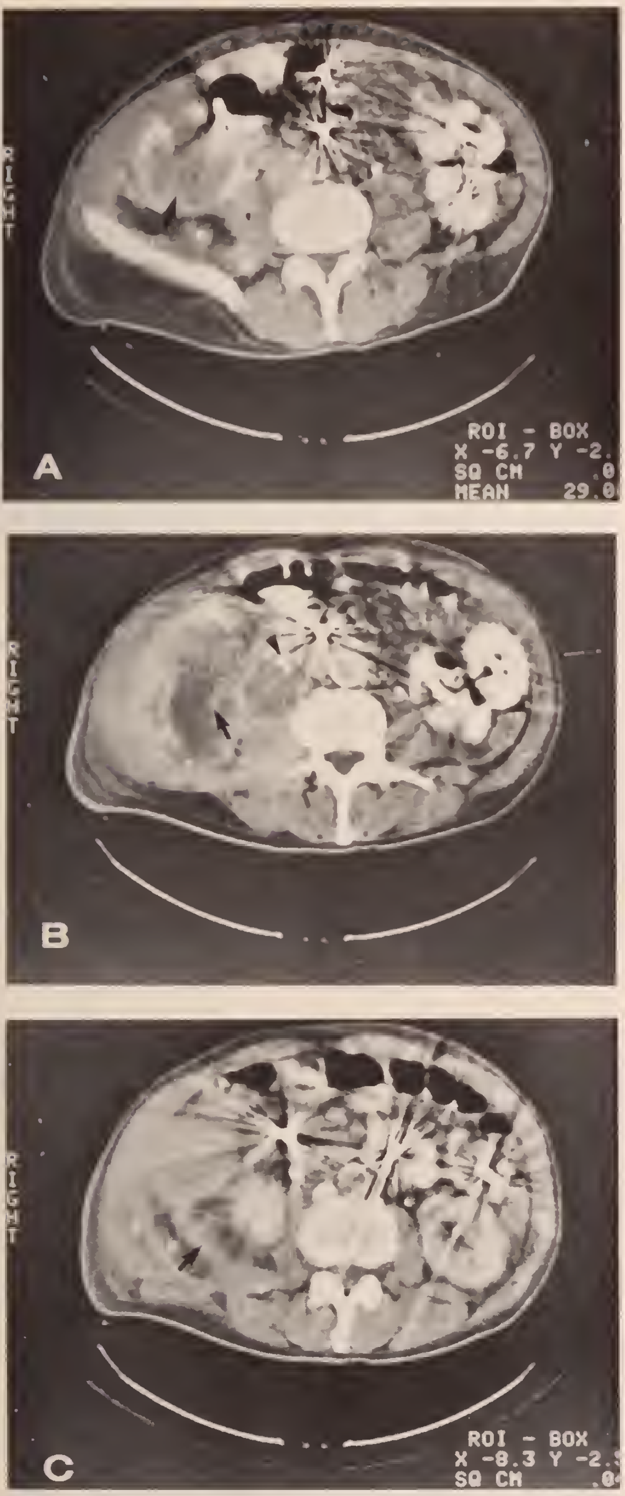


FIGURE 3. Case 3: Perforated mucin-producing adenocarcinoma of appendix and retroperitoneal collection. The "art effects" are due to barium remaining in bowel. (A) Large solid mass (arrow) adjacent to cecum displaces loops of opacified bowel. Cursor (little white square) shows over posterior extension of mass in that region. (B) Retroperitoneal collection (arrow) displaces and partially obstructs right ureter (arrowhead). (C) Extension of the collection into right perirenal and posterior pararenal spaces with thickening of lateroconal fascia (arrow).

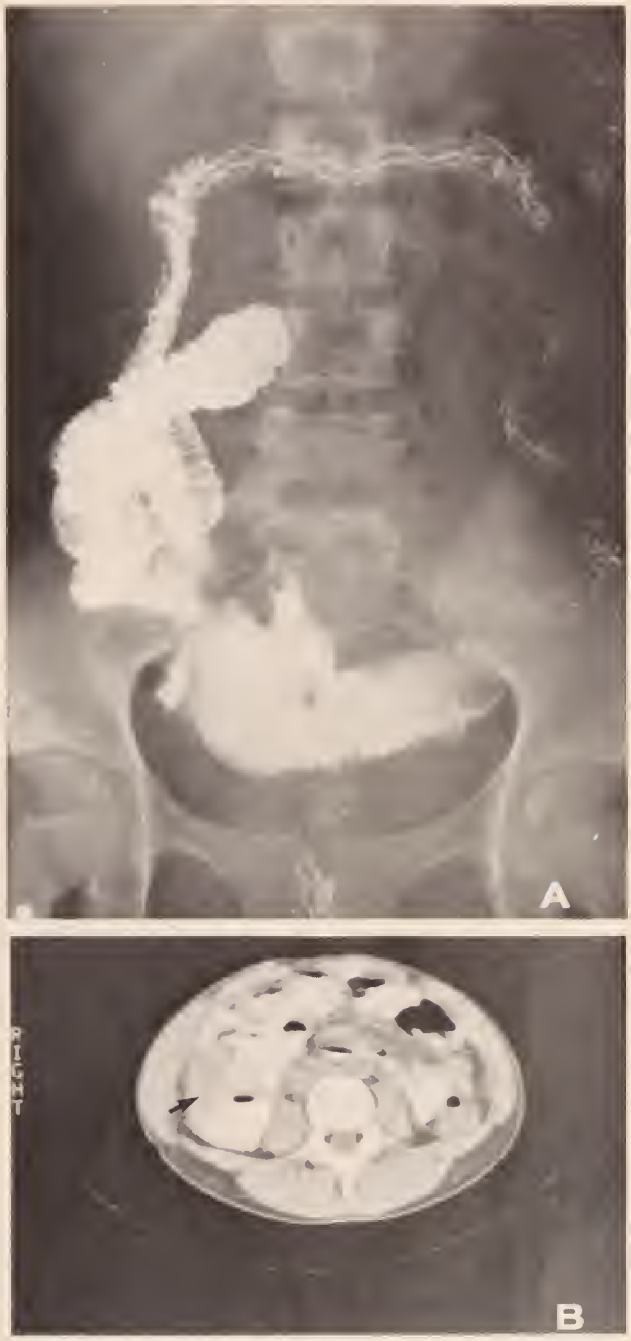


FIGURE 4. Case 4: Appendiceal stump abscess. (A) Barium enema and (B) CT scan show solid mass medially displacing cecum and ascending colon (arrow).

total hysterectomy and bilateral salpingo-oophorectomy for stage one carcinoma of the cervix.

Physical examination revealed a right-lower-quadrant firm, tender mass. The rest of the physical examination and laboratory data were unremarkable.

IVP, cystoscopy, and retrograde pyelography showed a medially displaced distal right ureter, partially obstructed by an extrinsic pelvic mass containing curvilinear calcification. CT examination showed a solid mass with central areas of decreased density surrounded by curvilinear calcification. The mass extended from the lower right pelvic wall towards the mid sacrum level, silhouetting the right

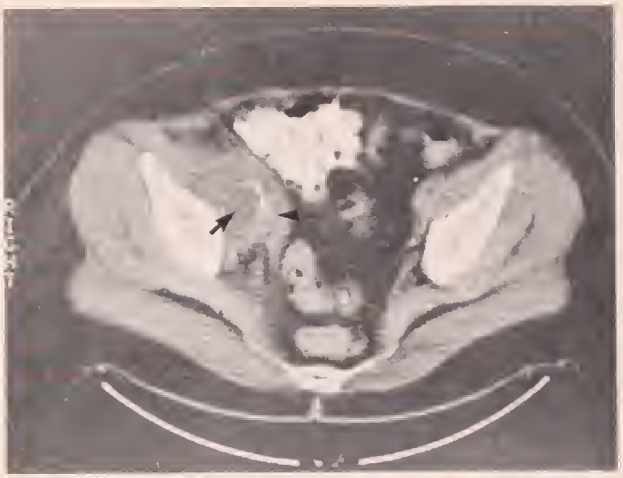


FIGURE 5. Case 5: Right lower quadrant necrotic mass with curvilinear calcification (arrow). Note right iliac vessels medial to mass (arrow head).

ilio-psoas muscle, and medially displacing the right colon and small bowel. The right ureter was partially obstructed (Fig. 5).

The diagnosis of inflammatory or neoplastic disease arising in the appendix was suggested preoperatively.

Surgery revealed retroperitoneal abscess communicating with the appendix through a 2-cm. defect in the parietal peritoneum. The abscess was posterior to the right common iliac artery and encased the distal right ureter. Central necrosis surrounded by curvilinear calcifications was present.

Comment. The CT examination excluded the possibility of a cystic pelvic mass, an aneurysm of the iliac vessels, or an old hematoma by showing the pelvic structure to be within normal limits. Therefore, the necrotic mass with curvilinear calcification suggested appendiceal pathology. The CT provided important information such as the extension of the disease, its proximity to the right pelvic vessels, and its effect on the right distal ureter.

Comment

The diseased appendix is often obstructed to passage of contrast material introduced by conventional radiologic studies. However, the lack of filling of the appendix with barium, although suggesting appendiceal pathology, is not by itself a reliable sign.

Therefore, while conventional contrast studies can be diagnostic in lesions of the gastrointestinal tract they are not reliable in the diagnosis of appendiceal disease.

CT has proved to be an excellent technique for demonstrating mural and extrinsic lesions of the gastrointestinal tract (Figs. 1, 2). Since the diseased appendix often does not communicate with the gastrointestinal tract, a mass in the appendix usually appears as an extrinsic lesion adjacent to the cecum. Thus, the CT demonstration of a mass compressing or adjacent to the contrast-filled cecum, along with the evidence of intrinsically normal cecum and terminal ilium demonstrated by barium enema are highly suggestive of appendiceal disorder.

Since mucocele or mucin-secreting adenocarcinoma of the appendix are either asymptomatic or appear clinically as appendicitis, their preoperative diagnosis is said to be rare to impossible.[1–7] But with the introduction of new imaging techniques such as ultrasound[8] and CT scanning, a specific preoperative diagnosis of appendiceal mucocele can be made.

Cases 1 and 2 demonstrated the usefulness of CT in diagnosing mucocele and mucin-producing adenocarcinoma preoperatively by its ability to measure and compare tissue densities. In these five cases, CT correctly showed the extent of the disease, depicted its spatial relation to adjacent organs and vessels, and located the disease in the intra- and/or extraperitoneal spaces.

In conclusion, barium enema and upper gastrointestinal series are still the examination of choice and the first examination to be performed when gastrointestinal pathology is suspected. However, CT is a valuable adjunct to the conventional contrast radiologic studies in evaluating suspected appendiceal disorders.

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Asymptomatic Urologic Lesions in Patients Receiving Anticoagulants

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Since their discovery by Schofield[1] and Roderick[2] in the 1920s, coumarin derivatives have come into wide clinical use. Present indications for anticoagulation therapy include deep vein thrombosis, pulmonary embolus, congestive heart failure, cerebrovascular insufficiency, and prophylaxis against thrombus formation in both pelvic and prosthetic surgery.[3] There appears to be a wide margin of safety when used with an intact vascular tree. In the presence of trauma, infection, and neoplasm, local hemostatic mechanisms are altered and the risk of a hemorrhagic complication increases.

Hematuria is the most common complication of anticoagulant therapy, occurring in 2 to 40 percent of patients who bleed.[4,5] Antolak and Mellinger[6] noted 81 percent of patients referred for evaluation of hematuria during anticoagulant therapy had identifiable urologic lesions. There have been other sporadic reports of urologic lesions bleeding during anticoagulant therapy.[7–9]

Because of the frequency of this complication, management often is limited to assessment of the clotting profile, discontinuation of the anticoagulant, and a "wait and see" attitude. This is contrasted with a more aggressive approach to the patient who is on no medications and bleeds spontaneously. Because of the frequent occurrence of asymptomatic lesions discovered during anticoagulant therapy, a temporizing approach is no longer tenable. We wish to emphasize the need for complete urologic investigation in the patient who develops hematuria during anticoagulant therapy, as illustrated by the following three cases.

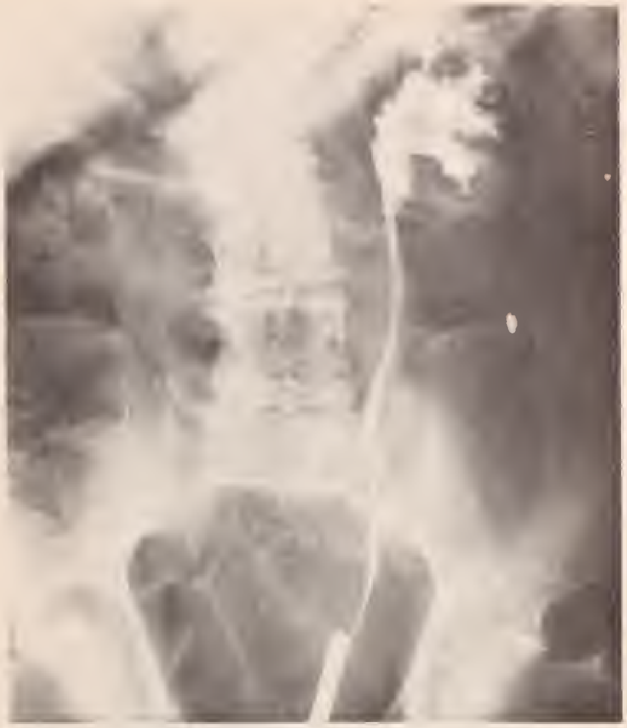


FIGURE 1. Case 1: retrograde pyelogram demonstrating left renal pelvic filling defect.

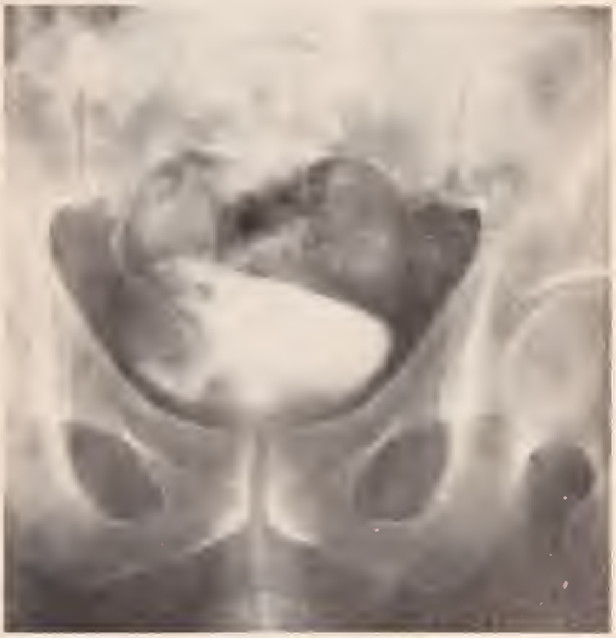
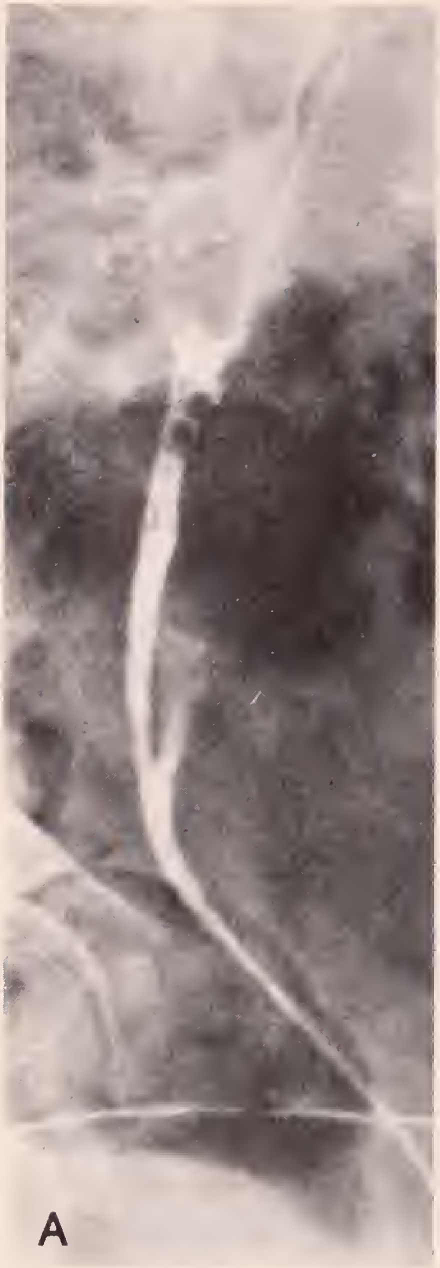


FIGURE 2. Case 2: excretory urogram revealing filling defect along right lateral bladder wall.

Case 1. A 66-year-old white male developed gross hematuria one week following coronary artery bypass graft. His preoperative urinalysis was normal. He had been placed on warfarin sodium (Coumadin) shortly after his operation and at the time of bleeding clotting studies were well within normal range. Retrograde pyelography revealed a large filling defect in the left renal pelvis (Fig. 1). CT scan (computed tomography) confirmed a high density lesion compatible with soft tissue. Cystoscopy and ret-



Since a significant number of urothelial tumors are found in an advanced stage, early diagnosis and treatment provide the most favorable prognosis. Hematuria occurring during anticoagulant therapy may be the only evidence of asymptomatic disease. We wish to emphasize the need for a complete urological investigation, particularly in the older age group.

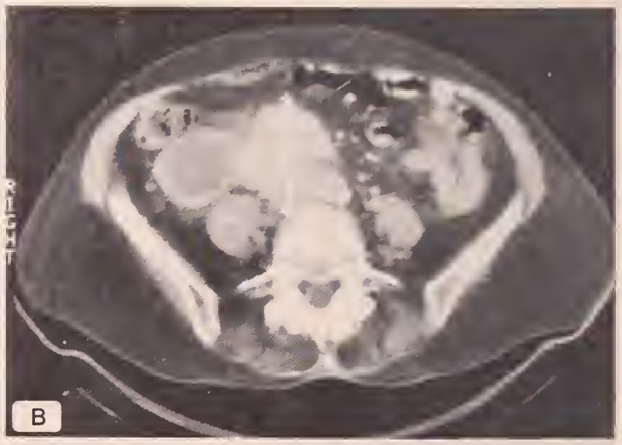


FIGURE 3. Case 3: (A) Retrograde pyelogram demonstrating lucent filling defects in duplex ureters. (B) Abdominal CT scan revealing hydronephrotic right kidney with exophytic tumor (6.49 cm. diameter).

rograde pyelography with brush biopsy obtained material which was cytologically positive for tumor. The patient underwent a left nephroureterectomy two months following coronary artery bypass and the specimen revealed a low grade transitional cell carcinoma of the left renal pelvis.

Case 2. A 60-year-old man was started on warfarin in 1969 following aortic valve replacement. He developed one episode of gross hematuria in 1973. Warfarin was discontinued despite a normal prothrombin time and the hematuria ceased. The warfarin was resumed and gross hematuria recurred. Excretory urography revealed a large filling defect along the right lateral wall of the bladder (Fig. 2). A cystoscopic examination was performed followed by resection of a large grade II bladder tumor.

Case 3. A 64-year-old white female with a history of pulmonary embolus received an intravenous heparin infusion and, subsequently, warfarin therapy. While on warfarin she noted gross hematuria associated with right flank and loin pain. Excretory urography showed an obstructed right duplex collecting system. Warfarin was discontinued despite normal clotting studies (prothrombin time 9.2 seconds with 11.3 seconds control) and activated partial thromboplastin time of 21.1 seconds (24.0 seconds control). She had a previous history of recurrent urinary tract infections but was otherwise asymptomatic. Retrograde pyelography (Fig. 3A) revealed lucent filling defects in both ureters of a duplex system. Brush biopsy revealed atypical cells highly suggestive of malignancy. Brain and bone scans were negative. Abdominal CT scan (Fig. 3B) revealed a markedly hydronephrotic right kidney with an exophytic tumor measuring 6.49 cm. causing complete obstruction of the duplex system. She underwent a right nephroureterectomy and histologic sections revealed a high grade transitional cell carcinoma involving both ureters.

Comment

As demonstrated by these cases, an asymptomatic malignancy may manifest itself by hematuria during anticoagulant therapy. Hemorrhagic complications have been found to occur in 2 to 33 percent of patients treated with anticoagulants.[4,5,8] Usually, bleeding after institution of heparin or oral anticoagulants is directly related to the degree of anticoagulation. This is not necessarily true in cases of asymptomatic lesions.

Michaels[9] reported five cases of patients receiving anticoagulants who developed gastrointestinal bleeding from asymptomatic malignancies with normal clotting studies. Our patients similarly bled with clotting profiles within the normal range. A normal prothrombin time may actually be a clue that a localized lesion may be the cause of the bleeding.

Not all hematuria occurring during anticoagulant therapy will be associated with malignant disease. In fact Antolak and Mellinger[6] found only 4 of 14 patients being evaluated for hematuria to have a malignant lesion. Others[10] have noted only transient abnormal urographic findings (such as clots) in patients receiving anticoagulants.

Urothelial tumors often grow in an indolent manner. Although 75 to 80 percent of patients will show localized tumors of the bladder, many may become invasive.[11] Fifteen percent of ureteral carcinomas are in an advanced stage.[12] Early diagnosis and treatment offers the best prognosis. Therefore, it is imperative that the primary physician suspect cancer when confronted with a patient who develops hematuria while on anticoagulant therapy.

The minimal urologic investigation should include urinalysis, urine culture, and excretory urography. Nephrotomography and cystoscopy may be deferred until the prothrombin time is normal. A "wait and see" attitude is not acceptable and may only delay diagnosis and treatment.

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Increase in skin cancers found in sunbelt residents

More older Americans are retiring and moving to the Southwestern sunbelt to escape the rigors of northern winters. And some of those older Americans are developing malignant melanoma, a particularly virulent type of skin cancer caused by too much sun.

Michael M. Schreiber, M.D., of Tucson, Arizona, reports that incidence of malignant melanoma has been increasing during the past ten years, with a very high rate in southern Arizona. There were 20 malignant melanomas reported in southern Arizona in 1969. The figure climbed to 120 in 1978, and the increase for the ten-year period was 340 percent, Dr. Schreiber says.

The extremely high incidence of melanomas in southern Arizona, the Tucson physician writes, is probably due to meteorologic and geographic factors allowing large amounts of ultraviolet light to reach the earth's surface.

Highest incidence of melanomas was in the age brackets of 50 to 59 and 60 to 69, Dr. Schreiber reports. Most common site was the back, with tumors on the legs second in number.

Writing in the January Archives of Dermatology, a journal of the American Medical Association, the Arizona physician reports that malignant melanoma is primarily a skin problem for fair-skinned whites.

Dark-skinned whites, Latins, Indians, and blacks have relatively little problems from skin cancer.

Tucson has more sunlight, more clear days, and less daytime cloudiness than any other city in North America, he says. Humidity is quite low and temperatures are quite high. Residents wear less and skimpier clothing and spend more time outdoors.

Feelings vs.

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to *de*crease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

The FACT is they are right.

For a brief summary of product information on Valium (diazepam Roche) ⓒ, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® Ⓘⓥ
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies The physician should periodically reassess the usefulness of the drug for the individual patient
Contraindicated: Known hypersensitivity to the drug Children under 6 months of age Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy
Warnings: Not of value in psychotic patients Caution against hazardous occupations requiring complete mental alertness When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures Advise against simultaneous ingestion of alcohol and other CNS depressants Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months After extended therapy, gradually taper dosage Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action Usual precautions indicated in patients severely depressed, or with latent depression or with suicidal tendencies Observe usual precautions in impaired renal or hepatic function Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation
Side Effects: Drowsiness, confusion diplopia hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash ataxia, constipation headache, incontinence changes in salivation slurred speech, tremor, vertigo, urinary retention blurred vision Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia rage sleep disturbances, stimulation have been reported should these occur discontinue drug Isolated reports of neutropenia jaundice periodic blood counts and liver function tests advisable during long-term therapy
Dosage: Individualize for maximum beneficial effect *Adults* Anxiety disorders symptoms of anxiety 2 to 10 mg b i d to q i d alcoholism, 10 mg t i d or q i d in first 24 hours, then 5 mg t i d or q i d as needed, adjunctively in skeletal muscle spasm 2 to 10 mg t i d or q i d adjunctively in convulsive disorders, 2 to 10 mg b i d to q i d *Geriatric or debilitated patients* 2 to 2½ mg 1 or 2 times daily initially, increasing as needed and tolerated (See Precautions) *Children* 1 to 2½ mg t i d or q i d initially increasing as needed and tolerated (not for use under 6 months)
Supplied: Valium® (diazepam/Roche) Tablets, 2 mg 5 mg and 10 mg—bottles of 100 and 500, Tel E Dose® packages of 100 available in trays of 4 reverse numbered boxes of 25 and in boxes containing 10 strips of 10 Prescription Paks of 50 available in trays of 10

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(*continued from page 870*)

devoted to the single-minded purpose of restricting health expenditures."

* * *

Medical schools must diversify sources of financial support for medical education in light of prospects for reduced institutional aid from the federal government, the AMA has told Congress.

"While the federal role has been significant in the last decade, medical education has also enjoyed support from various other sectors of society," said C. H. William Ruhe, M.D., a Senior Vice President of the AMA. "It will now be incumbent to increase this latter base of support to assist in meeting funding requirements."

Dr. Ruhe told the House Commerce Subcommittee on Health that medical schools must have sufficient resources to provide education of a high quality, and students must have the resources to meet the costs of the education.

The federal program of aid for medical schools comes up for renewal this year under assault from the Reagan Administration, which is seeking deep cuts. Congress was unable last year to complete action on a new health manpower program.

Dr. Ruhe noted in his testimony that the cost of a medical education today can be staggering with annual tuition figures of more than $10,000 becoming commonplace. "We are deeply concerned over the financial burdens being placed on students and the impact of high tuition on new practitioners."

"The AMA believes that medical education must not be allowed to become limited on the basis of income," he said. "Student assistance must be of the highest priority for government action . . . Without such aid, the potential exists for medical education to become the privilege of the wealthy. The AMA is committed to seeing that financial resources are available to qualified aspiring health professionals."

The AMA official urged a program of guaranteed loans with repayment deferrable through residency training. "Consideration should also be given to interest subsidies for the length of the training, and to setting the rate of repayment to the ability of the individual to repay the principal of the loan."

The AMA also supported continued federal assistance to programs of basic nurse training, but opposed legislation to make the GMENAC (Graduate Medical Education National Advisory Committee) a permanent statutory body.

* * *

The Reagan Administration budget cuts in health and welfare have survived preliminary skirmishes in Congress, raising hopes at the White House that the lawmakers will go along with the bulk of the economy program.

Spokesmen for groups hard hit by the cuts, however, lined up at Congressional hearings to protest the budget chops, arguing that needed health services will be denied beneficiaries and that vital programs will suffer.

The first round of what is expected to be a session-long battle over the size of the health cuts appeared to be going to the Administration as House and Senate Committees begin to act on the budget resolutions that will dictate overall spending limits they must work within.

(*continued on page 934*)

A series of articles dealing with current status

Recent Advances in Management of Carcinoma

Management of Renal Carcinoma

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Renal carcinoma is currently diagnosed in approximately 17,000 patients annually and causes approximately 8,000 deaths annually. This paper reviews the suspected etiologies, methods of detection, current diagnostic and staging procedures, principles and therapeutic alternatives of management, and follow-up methodologies.

Renal carcinoma is most prevalent in the 70-year age group. It is estimated that in excess of 17,000 Americans will be diagnosed with renal carcinoma and approximately 8,000 will die of this disease this year,[1] and the incidence appears to be increasing.[2] In 85 percent of cases the cell type is adenocarcinoma. Males are two to three times more likely to develop the disease than are females. Renal carcinoma in males, particularly males less than 50 years of age, appears to be related to tobacco use, and in females it appears to be related to obesity. In both males and females, diets that are high in animal fat and cholesterol seem to be associated with renal carcinoma.[3,4]

Detection and diagnosis

The typical constellation of signs and symptoms appearing singly or in combination in about 20 percent of patients at the time of diagnosis is hematuria, flank pain, palpable mass, fever, and polycythemia; while the classic triad of symptoms—hematuria, flank pain, and mass—are present only in 10 to 15 percent of patients at the time of diagnosis.[5] The presenting feature of renal carcinoma is hematuria in 40 percent of patients, flank pain in 10 percent, abdominal mass in 6 percent and fever in 2 percent.[6] A significant number of patients have vague abdominal pain or other gastrointestinal complaints, and 30 to 40 percent of patients have no symptoms directly related to the primary tumor. In approximately 33 percent of patients, metastases are present at the time of diagnosis and the earliest symptoms are related to pulmonary, osseous, or cerebral metastases, and frequently include weight loss, weakness, and anemia.[5] Radiographic evidence of metastases are present in approximately 25 percent of patients at the time of diagnosis.[7] The most frequent sites of metastases are lungs, regional lymph nodes, liver, and bone.

Additional associated systemic, metabolic, and hormonal abnormalities sometimes present in patients with renal carcinoma are erythrocytosis, hypertension, hypercalcemia, protein-losing enteropathy, cardiac enlargement, cardiac failure, hepatic dysfunction, neuromyopathy, amyloidosis, and acute varicocele. There may be elevated serum levels of the following: erythrocyte sedimentation rate, fibrinogen, fibrinogen degradation products, prostaglandin A, adrenocorticotropic hormone, alkaline phosphatase, chorionic gonadotropin, prolactin, enteroglucagon beta-lipoprotein, tumor antigenesis factor, and carcinoembryonic antigen.[5,8,9]

Diagnostic and staging procedures

The procedures currently employed in the diagnosis and staging of renal carcinoma are the following.

1. Urinalysis may demonstrate red blood cells or proteinuria.
2. Excretory urography (intravenous pyelography) frequently demonstrates a space-occupying mass which might be calcified, or, less commonly, nonvisualization of the kidney.
3. Drip infusion nephrotomography differentiates a renal cyst from a solid tumor in approximately 95 percent of cases.[10]
4. Renal ultrasonography can also differentiate solid

TABLE I. Staging of renal carcinoma

Robson Staging[20]	TNM Staging[21]	Extent of Disease
I	T 1	Tumor within capsule (small)
	T 2	Tumor within capsule (large)
II	T 3	Tumor in perinephric fat
	T 3	Tumor in renal vein
III	N1–N3	Tumor in regional lymph nodes
		Tumor in vena cava
	T 4	Adjacent organ invasion
IV	M 1	Distant metastases
	N 4	Tumor in juxta-regional lymph nodes

from cystic masses with 95 percent accuracy.[11] The combination of excretory urography and renal ultrasonography has been reported as accurately diagnosing 88 to 98 percent of patients with renal cysts and accurately diagnosing 86 percent of patients with renal carcinoma.[12]

5. Radionuclide renal scan may aid in the diagnosis of a vascular renal mass, but its primary role is in staging and follow-up.
6. Cyst puncture aids in the diagnosis of a tumor within a cyst, particularly of an avascular cystic mass. Fluid can be collected for cytologic and biochemical examination and the cyst may be injected with contrast media.[13]
7. Computed tomography of the kidney carries a diagnostic accuracy rate of 95 percent and a false positive rate of 1 percent.[14] It also assists in the staging of renal carcinoma.[15]
8. Selective and bilateral renal angiography, with or without epinephrine enhancement, is virtually diagnostic in 95 percent of patients who demonstrate characteristic neovasculature and other findings.[10,16,17] Renal angiography also aids in assessing the extent of the tumor.
9. Inferior or superior venacavography sometimes establishes the presence or absence of vena caval renal vein involvement by the tumor thrombus.[18]
10. Thin needle biopsy of suspected carcinoma is used on rare occasion.[19]

Additional studies frequently of importance in staging the disease are chest tomograms, metastatic bone series, radionuclide bone and liver scan, gastrointestinal series, complete blood count, liver chemistry, and serum calcium determinations. It is important to note that since the recent improvements in the quality of excretory urography, particularly the frequent routine combination of drip infusion nephrotomography with this study, there has been a significant increase in the rate of detection of clinically asymptomatic and unsuspected cases of renal carcinoma.

The staging systems most frequently employed are the Robson System[20] and the TNM System[21] shown in Table I. Approximately 33 percent of patients with renal carcinoma appear with stage I disease, 12 percent have stage II disease, 24 percent have stage III disease, and 31 percent, stage IV disease.[6] Patients with high-grade tumors are three times more likely to appear with metastasis than are patients with low-grade tumors; they are twice as likely to develop metastasis if they were initially free of disease, and more commonly have renal vein invasion or vena caval extension.[6]

Treatment

The stage and the grade of the tumor, particularly the former,[22] are believed to be of more significance in terms of prognosis than the choice of therapy.[23] The choices of therapy are radical nephrectomy, adjunctive nephrectomy, radiation therapy, angioinfarction, or a combination of these modalities. Without treatment, the one-, three-, and five-year survival rates are 36 percent, 4.4 percent, and 1.7 percent respectively.[24] Spontaneous regression of the primary tumor or of metastatic lesions is extremely rare.[25] Palliative nephrectomy for bleeding and pain in patients with distant metastasis is sometimes worthwhile in terms of improvement of quality of life.

Radical nephrectomy. Radical nephrectomy, that is, removal of the kidney, adrenal gland, perinephric fat, and Gerota's fascia en bloc, possibly including the regional lymphatics, constitutes the mainstay for all potentially curable lesions. In approximately 25 percent of patients the regional lymph nodes contain metastases,[7] and in approximately 10 percent of patients the adrenal gland is involved.[26] The presence of renal carcinoma in the renal vein and/or vena cava does not preclude surgical resection for cure[27] and in the absence of other metastases may not adversely effect the prognosis.[22,28] Radical nephrectomy carries an operative mortality of 2 to 5 percent.[7,29,30]

Following radical nephrectomy and regional lymphadenectomy, the five-year survival rates for stage I, II, and III disease may be as high as 80, 64, and 48 percent respectively; and, the ten-year survival for stage I, II, and III disease may be as high as 70, 66, and 38 percent respectively.[25] However, the usual survival rate for early stages of the disease is approximately 60 percent (five year) and 45 percent (ten year).[31] If the renal vessels or regional lymphatics are involved, the five-year survival rate is 40 to 70 percent, and the ten-year survival rate is less than 40 percent.[30]

While nephrectomy in patients with distant metastases rarely produce regression of metastases, five-year survivals are reported following adjunctive nephrectomy and resection of solitary pulmonary metastasis that may be as high as 35 percent; and after adjunctive nephrectomy and resection of solitary or multiple pulmonary metastases the five-year survival rate may be as high as 25 percent.[32] Such patients should be treated aggressively, particularly those patients with solitary metastases.[33,34] In addition, it is occasionally worthwhile to perform adjunctive nephrectomy in patients with bony metastases.[35] Combination adjunctive nephrectomy and progesterone therapy has, on rare occasion, produced complete regression of all apparent metastases.[36] It is believed that failure of radical nephrectomy to cure a higher percentage of patients is due to synchronous or metachronous distant metastasis, which is related to the finding that about 60 percent of patients with positive regional lymph nodes have occult distant micrometastasis.[6]

The therapeutic alternatives for patients with bilateral renal carcinoma are unilateral radical nephrectomy with contralateral partial nephrectomy or enucleation of the tumor, bilateral partial nephrectomy, or, in certain carefully selected cases, bilateral radical nephrectomy with hemodialysis. Occasionally, bench surgery and autotransplantation,[37] transplantation, radiation therapy, or chemotherapy is employed.

Definitive and adjuvant radiation therapy. Because renal carcinoma is a relatively radioresistant tumor and the response is unpredictable, definitive radiation therapy is rarely utilized except for apparently nonresectable tumors. However, radiation may be helpful in palliation of bony metastases and may be useful in palliation of patients with local pain and urinary bleeding. Postoperative adjuvant radiation in the dosage range of 4,000 to 5,000 rad is sometimes useful for residual or recurrent carcinoma, but survival increase or local recurrence decrease has not been demonstrated.[38] Preoperative adjuvant radiation (3,000 rad) at the present time does not appear warranted in terms of improving the five-year survival rate, but it has been noted to reduce the risk of residual or recurrent tumor following surgery and to reduce the tumor size of otherwise unresectable tumors.[39] Treatment with even higher doses, in the range of 4,500 to 4,800 rad, has not shown significant benefits for patients having early-stage tumors.[38]

Chemotherapy and hormonal therapy. At present there is no standard chemotherapeutic agent used alone or in combination that is consistently effective for metastatic carcinoma of the kidney.[40] Cytotoxic chemotherapeutic agents usually have not shown an objective response rate in excess of 10 percent, with the possible exception of vinblastine which has shown objective response rates of up to 25 percent.[41] The most effective combination now available is CCNU (1-(2-chloroethyl)-3-(4-cyclohexyl)-1-nitrosurea) and vinblastine sulfate which has produced an objective response of 10 percent, a subjective response of 50 percent, with a total response rate of 66 percent with arrest of disease progress for up to 10 months,[42] and a 23 percent incidence of disease stabilization lasting up to 10 months.[43] While hormonal therapy with progesterone and testosterone has been advocated due to a modest response rate of 15 percent,[44] generally the results have been disappointing.[45] However, the combination of nephrectomy and postoperative hormonal or cytotoxic chemotherapy has resulted in a three-year survival rate of 31 percent, and a five-year survival of 14 percent.[46]

Angioinfarction. Transcatheter renal arterial occlusive techniques, employing balloon occlusion or embolization with such materials as autologous blood clot, Gelfoam, plastic spheres, glass beads, ferromagnetic microspheres, and the Gianturco coil, have been employed for palliation of pain and bleeding in patients with disseminated disease, as an adjunct to nephrectomy in patients with localized disease, and to facilitate radical nephrectomy in patients with large vascular tumors.[47] A promising variation of this therapy for patients with metastatic disease involves a combination therapy of selective renal artery embolization followed by radical nephrectomy and medroxyprogesterone acetate which has demonstrated, in a significant number of patients, complete and partial responses with disappearance of all known metastatic disease for periods ranging from 3 to 39 months, or prolonged stabilization of disease. These results are usually apparent after three months, after which an overall response rate in excess of 50 percent, and objective response rate of 28 percent, and stabilization of the disease in 21 percent of patients is noted.[48,49] These results in patients with metastatic disease exceed any others reported to date with either radical nephrectomy, hormonal therapy, or chemotherapy, used singly or in combination. It is believed that the infarction itself alters the cell-mediated immune response.

Immunotherapy. At the present time, immunotherapy for metastatic renal carcinoma has not proved to be of clinical value but some results are encouraging. The use of transfer factor with bacillus Calmette-Guerin or with CCNU and megestrol acetate has produced an objective response rate of 26 percent with a ten-month median duration of response[50]; and patients treated with nephrectomy and active specific immunotherapy have demonstrated a 24 percent five-year survival rate as compared to a 4 percent five-year survival for patients treated with nephrectomy alone.[51]

Follow-up surveillance. Patients undergoing radical nephrectomy for renal carcinoma should be followed with serial chest x-rays, complete blood counts, and SMA-12 (sequential multiple analysis) at least yearly for several years. The addition of renal ultrasonography and computed tomography of the renal fossa during this time might be of value.

Conclusion

The treatment of patients with metastatic renal carcinoma with single or combined cytotoxic chemotherapy or hormonal therapy, or definitive or adjuvant radiation therapy is extremely unpredictable and usually unsuccessful. In addition, it is generally believed that the optimal benefits of radical nephrectomy have been achieved. Future gains in terms of early diagnosis, improved survival rates, and improvement of qualify of life in patients with metastatic disease will depend on new understanding and manipulation of other parameters, including the tumor-host immune relationship and more extensive use of combination therapy with adjuvant angioinfarction, hormonal therapy, cytotoxic chemotherapy, and radical nephrectomy.

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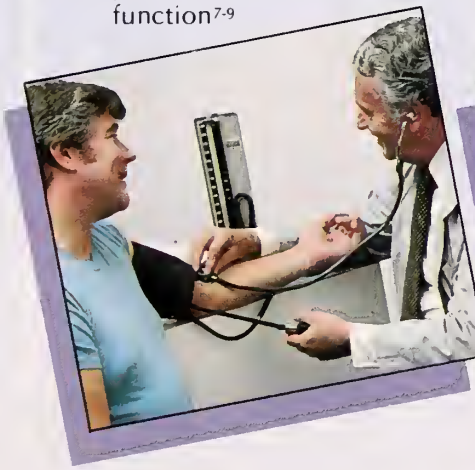

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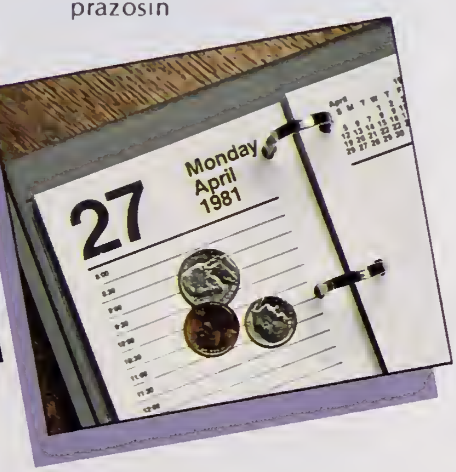

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ABSTRACTS AND REPORTS OF PROCEEDINGS

Scientific Sessions held at
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New York Society for Thoracic Surgery

ALLAN ELLIA BLOOMBERG, M.D., Editor

Winter Session

The winter meeting of the New York Society for Thoracic Surgery was held on February 28, 1980, at Memorial Hospital, New York City.

The following article is abstracted.

Lung Cancer

Chemotherapy as curative treatment

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Lung cancer continues to be a major health problem in this country, accounting for 15 percent of cancer incidence and an estimated mortality of about 90,000 in the United States in 1978.[1]

Numerous studies have demonstrated the dose-related increased incidence of lung cancer associated with exposure to tobacco smoke.[2] All major histologic subtypes are increased in frequency in cigarette smokers, but the association is strongest for squamous cell carcinoma and oat cell carcinoma. Other risk factors include pipe and cigar smoking, asbestos and uranium exposure, and contact with numerous industrial and chemical products.[3]

The incidence of lung cancer is increasing in women, associated with their increased tendency to be cigarette smokers. In Cuba it represents the major cause of cancer deaths in women.

The major histologic cell types of lung cancer and their relative incidences in a large number of collected series of patients are squamous cell 42 percent, small cell 18 percent, adenocarcinoma 14 percent and large cell undifferentiated 22 percent.[4] Recent studies indicate that adenocarcinoma is increasing in frequency with each of the nonsquamous cell types representing 20 percent.[5]

Treatment

Although surgery appears to be the major hope for cure in all but a few patients, two-thirds to three quarters of all patients with lung cancer are unresectable at diagnosis.[6] It is important to develop treatment guidelines with other modalities for those patients who are either unresectable or have a poor prognosis defined at surgery.

The treatment of small cell carcinoma should be considered separately. Surgery has been relegated to a secondary role, and both chemotherapy and radiotherapy have shown more curative potential in this cell type than in other histologic types of lung cancer.

Small cell carcinoma

Small cell carcinoma of the lung is the histologic type of lung cancer associated with the shortest survival in untreated patients, and the highest frequency of disseminated disease at presentation. Surgery alone as treatment has resulted in prolonged survival in less than 1 percent of patients.[7] Small cell carcinoma has the shortest doubling time, about 33 days, of all lung cancers, and is the most sensitive to chemotherapy.

Chemotherapy is now the mainstay of treatment of small cell carcinoma and has significantly altered the natural history of the disease for many patients. Single agent response rates are in the 20 to 40 percent range with cyclophosphamide (Cytoxan), doxorubicin (Adriamycin), vincristine, CCNU*, the epipodophyllotoxin VP-16-213, methotrexate, hexamethylmelamine, and procarbazine being the more active agents.[8]

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*(1-2-chloroethyl)-3-(4-cyclohexyl)-1-nitrosourea).

Aggressive chemotherapy combining several of the above agents has resulted in response rates of 45 to 90 percent, complete response rates of 8 to 36 percent, and improved median survival of six to nine months in patients with extensive disease.[9] For those patients with disease limited to one hemithorax, response rates and median survival are somewhat better. More importantly, long term survivors from such treatments are becoming more frequent, and chemotherapy may be discontinued after adequate restaging proves complete disappearance of tumor.[10,11]

Radiation therapy has a definite role in palliation of brain metastases. It has been given prophylactically to patients who have responded to chemotherapy, but with no definite prolongation in survival.[12] For patients with limited disease, giving chest radiation with combination chemotherapy may be superior to chemotherapy alone, but further studies are needed to define optimal combined regimens.

Other types of lung cancer

I. Adjuvant Therapy. Because so few patients with nonsmall cell carcinoma are operable, and one quarter or more of those patients dying in the postoperative period after "curative resection" have metastases at autopsy,[13] there have been several trials of adjuvant therapy in resectable lung carcinoma. No benefit has been shown for any adjuvant chemotherapy, but in one study, BCG (Bacillus Calmette-Guerin) was of benefit in decreasing recurrences in resected Stage 1 disease. Presently, controlled trials are underway at the National Cancer Institute to evaluate adjuvant BCG in Stage 1 disease, adjuvant radiation therapy with or without Levamisole in Stage II/III squamous cell carcinoma, and adjuvant BCG plus Levamisole versus combination chemotherapy in Stage II/III adenocarcinoma.[14] It should be noted that the median tumor burden is probably much higher in operable lung cancer patients than in other tumors such as melanoma or colonic cancer. There is renewed interest, however, in more aggressive "debulking" surgery as part of well structured clinical trials, now that somewhat more effective chemotherapy regimens are being applied, and use of radiotherapy has become more selective.

II. Radiation. Although occasional cures have been reported when radiation therapy is used instead of surgery as a primary treatment for resectable lung cancer, surgery is still the treatment of choice for these tumors.

There is a definite role for radiotherapy in the palliation of symptoms related to the primary lung tumor, and to bone or central nervous system metastases. Likewise, definite benefit has been demonstrated for radiation therapy given prior to chemotherapy in superior sulcus tumors.[15]

The benefit of preoperative radiation therapy in the treatment of resectable tumors other than superior sulcus tumors remains to be defined, but is considered likely in squamous types.[16] These treatment options, as well as the use of radiation therapy in conjunction with combination chemotherapy for metastatic disease, are being evaluated.

Radiation therapy has been shown to be of marginal benefit in the treatment of relatively asymptomatic nonmetastatic unresectable tumors beyond Stage II.[17] Use of radiotherapy in Stage III patients is best planned in coordination with medical oncology. Awareness of chemotherapy and radiation interactions is essential in patients who receive both modalities combined or sequentially.

III. Chemotherapy. The treatment of nonsmall cell carcinoma with chemotherapy has been disappointing, but with the introduction of several new drugs, it appears to be giving more reproducible results. Single agent response rates are in the 0 to 20 percent range, and single agent treatment has not been definitively shown to prolong survival.[18] Combination chemotherapy has resulted in response rates that are higher than those seen with single agent therapy, and survival of responding patients is frequently better than that of nonresponding patients although median survival rates have not always been prolonged.[19]

The regimens yielding the most reproducible results in several studies are those containing cyclophosphamide, doxorubicin, and cisplatin, with response rates in the 18 to 48 percent range, and survival times for responders ranging from 28 to 64 weeks.[20–22] Moreover, this combination in some trials has been superior to single agent treatment in prolonging survival. Other combination chemotherapy regimens have shown high response rates, but confirmation is required; at times, conflicting results have been reported. Efforts are underway to evaluate new agents and combinations of standard agents in the treatment of nonsmall cell carcinoma; combinations with cisplatinum both in studies at Memorial Hospital and the Eastern Cooperative Oncology group have appeared promising. There is renewed interest in the use of chemotherapy together with surgery and/or radiotherapy to improve both the cure rates and the survival of the patients.

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The following article is abstracted.

Thorascopy Revisited

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Thirty-eight thoracoscopies were performed during the last two years at The Mount Sinai Hospital and its affiliates. Five of these were done with a flexible bronchoscope and 33 with a standard laparoscope. Local or general anesthesia was used, as indicated by the individual situation. The most common indication for determining to use the procedure was an undiagnosed pleural effusion.

Eighty-one percent of these 21 patients were correctly diagnosed. The only complication encountered was a prolonged air leak. Four patients, with known malignant mesothelioma, were thoracoscoped to evaluate their resectability. One foreign body was removed without difficulty.

Conclusion

Thoracoscopy was again shown to be a simple and safe diagnostic procedure and its further use should be encouraged.

The following article appears in its entirety.

Cystic Changes of the Lung From Metastatic Tumors

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FRANK CIFARELLI, M.D.
SAMUEL RAMOUTAR, M.D.*
KAREL JINDRAK, M.D.*
STANLEY SAHN, M.D.*
Brooklyn, New York

From the Department of Surgery, Pathology and Radiology, The Methodist Hospital and the State University of New York, Downstate Medical Center

A variety of clinical manifestations of malignant neoplasms metastasizing to the lungs include bloody pleural effusions, atelectasis, and pleuroparenchymal infiltrations. Pneumothorax as the initial clinical feature, although relatively infrequent, has been well documented in the literature.[1–6] The two cases we are reporting are of interest because cystic changes of the lungs on radiologic examination appeared to be metastatic pulmonary disease.

Case reports

Case 1. A seventy-year-old white male was admitted on January 29, 1977, because of recurrent hemoptysis. In September, 1976, the patient underwent wide excision of hemangiosarcoma of the left temple, followed by two reconstructive procedures for the defect in the scalp. Two months prior to admission, the patient developed chest pain, blood-tinged sputum, and was diagnosed as pulmonary embolism following pulmonary perfusion scan. Physical examination revealed a well-developed seventy-year-old man in slight respiratory distress. Vital signs were normal. A well-healed scar was noted in the left temporal area; diminished breath sounds were noted bilaterally. The rest of his physical examination was unremarkable. Roentgenogram of the chest was obtained showing bilateral cystic changes of the lung (Fig. 1). On February 11, 1977, open lung biopsy of the right lower lobe was

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* By invitation.

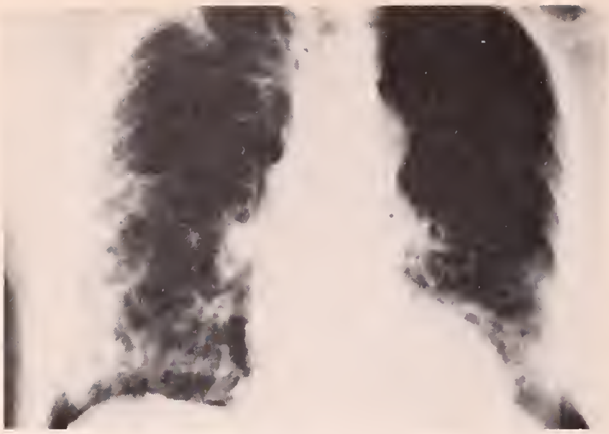

FIGURE 1. Posteroanterior view of chest x-ray showing cystic changes of both lungs.

performed by one of us (Choon S. Chin) and the presence of metastatic hemangiosarcoma was confirmed (Fig. 2). The immediate postoperative course was complicated by 90 percent pneumothorax on the opposite side, most likely from rupture of cysts in the left lung. A chest tube was immediately introduced to expand the lung. The patient was placed on chemotherapy, but his condition continued to deteriorate and he expired on March 18, 1977, from progressive respiratory failure.

Case 2. A fifteen-year-old white male was admitted on May 11, 1964, because of hemoptysis. Previously, the patient underwent an amputation of his left hand for a diagnosis of neurofibrosarcoma when he was ten years old. The pertinent findings on physical examination revealed a fairly well developed and poorly nourished white male who was in mild respiratory distress. Scattered coarse rales were audible in both lungs. Roentgenogram of the chest revealed a large cyst in the left upper lobe and multiple cystic changes in both lung fields. On May 20, 1964, a large cyst was excised from the left upper lobe by Dr. Frank Cifarelli. The pathologic examination of the specimen revealed metastatic neurofibrosarcoma. The patient's postoperative course was relatively uneventful and he was discharged on June 10, 1964. He was treated with cytoxan and followed by a medical oncologist.

The patient was readmitted on August 17, 1964, with severe respiratory distress. His respiratory rate was 120 per minute, blood pressure 116/100. Despite supportive therapy, he deteriorated rapidly and expired on August 19, 1964. Autopsy revealed extensive metastatic sarcomatous lesions to both lungs.

Comment

The pathogenesis of pulmonary cystic changes in our patients is not clear. Several mechanisms have been suggested to explain the development of pneumothorax in patients with pulmonary metastatic sarcomas.

The first and the most likely mechanism is tumor embolization with pulmonary infarction and necrosis.[6] These findings were observed in the specimens of our patients. Another mechanism is that with rapid growth of tumor, it is possible that malignant tumor outgrows its blood supply and becomes necrotic. This mechanism is not applicable in our cases since the cystic changes developed without any previous radiologic evidence of metastatic pulmonary nodule.

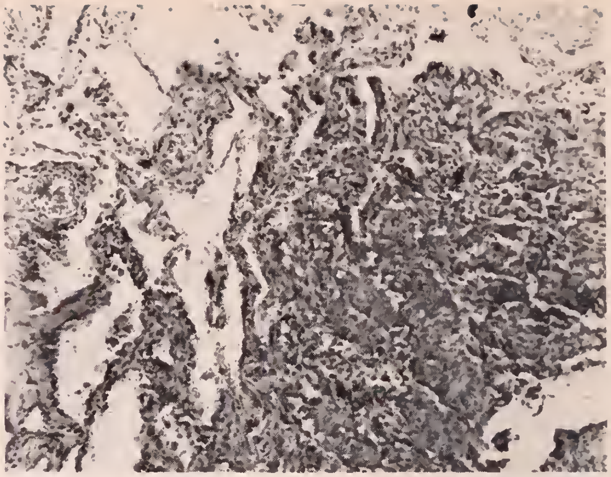

FIGURE 2. Photomicrograph of open lung biopsy specimen showing focus of aggressively infiltrating hemangiosarcoma and surrounding lung tissue showing emphysematous change (hematoxylin and eosin stain X100).

If a patient, who is known to have primary sarcoma elsewhere, develops cystic changes of the lung, it would seem reasonable to suspect pulmonary metastasis unless proved otherwise. Although the prognosis is generally poor, only an aggressive early diagnostic and therapeutic approach will provide better chance for survival. A solitary cystic lesion in the lung in such a patient may occasionally represent solitary pulmonary metastatic lesion and, in the absence of other metastases elsewhere, an excision for such a lesion can be a worthwhile procedure.

Summary

Two cases of cystic changes of the lung from metastatic sarcomas are presented here and the pathogenesis reviewed. Although prognosis is generally poor, an early aggressive diagnostic approach is suggested.

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The following article is abstracted.

Programmable Pulse Generators

A Seven Year Experience

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Since 1972 Montefiore Hospital and Medical Center has implanted 608 PPG (programmable pulse generators), 385 rate and output PPG, 125 output only PPG, 88 rate only PPG, and 10 multiprogrammable (3 or more functions) PPG. During this period 1.5 percent of patients were paced at 35 to 45 BPM (beats per minute), 3 percent at 45 to 55 BPM, 26 percent at 55 to 65 BPM, 65 percent at 65 to 75 BPM, 4.5 percent at 75 to 85 BPM, and none above that. Ninety percent of PPG were set at an output below standard PG output (5 volts/0.5 ms) to prolong longevity and 5 percent above that output to manage high threshold problems. During 1977 and 1978 20 operations were performed on nonprogrammable PG to make changes which could have been accomplished noninvasively had a PPG then available been implanted. Twenty-seven noninvasive maneuvers on implanted PPG avoided operative intervention including 4 patients with increase in pacer sensitivity. The 50 percent cumulative survival rate (CSR) of one model mercury-zinc (Hg-Zn) PPG was at 42 to 45 months, one year greater than its nonprogrammable contemporary PG at 30 to 33 months. Another model Hg-Zn PPG had a 71 percent CSR at 39 to 42 months and another 100 percent CSR at 42 to 45 months. For the second manufacturer with an Hg-Zn output PPG the 50 percent CSR was 66 to 69 months compared to 42 to 45 months for contemporary nonprogrammable models. Six instances of false programming have occurred, three of output change, none below the threshold of stimulation, and three of rate change in a PPG with a magnetic activated rate programming mechanism. The use of presently available PPG has been safe and effective, allowing management of patients who would be less well served by single-rate single-output (SR/SO) PG and having avoided operative interventions because of programming capability. It remains necessary to avoid false or misprogramming to reduce the number of different programming mechanisms, nine at present, and identify clearly the programmable functions of the PPG implanted.

The following article is abstracted.

Percutaneous Intra-Aortic Balloon Counterpulsation

A new technique

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The design features of currently available intraaortic balloons make it mandatory to insert them by surgical exposure of the common femoral artery. This results in delaying the beginning of balloon pumping once the decision has been reached to employ this therapeutic modality. To achieve an effective, easy and rapid way of beginning balloon pumping, a new balloon catheter has been designed. Feasibility of percutaneous insertion of this balloon and its physiological effectiveness was evaluated initially in 13 dogs and later applied in 30 patients (11 with postinfarction angina, 15 in acute myocardial infarction cardiogenic shock and 4 with postcardiotomy shock). This new balloon was inserted percutaneously through a #12 French teflon sheath by standard Seldinger technique. Fluoroscopic control of the passage of the catheter was not essential. Thus the insertion of the balloon catheter was done without moving the patient to any special bed or another unit. The diastolic augmentation and after-load reduction was comparable to the standard available balloons. Duration of balloon pumping ranged from 24 hours to 10 days and during this period, physiological effectiveness was maintained. In four patients, a balloon catheter could not be passed beyond the aortic bifurcation because of severe iliac artery stenosis. Percutaneous removal of the balloon was easy and without any immediate or delayed complications. Multiple exchanges of the balloon via the percutaneous sheath was also easy and effective. Duration of the entire technique of insertion of this new balloon was less than five minutes. This technique is analogous to, and much simpler than, passage of the Swan-Ganz pulmonary artery catheter via the percutaneous subclavian approach.

Preliminary data suggests that percutaneous insertion of this new balloon catheter is an effective, easy, and rapid way of accomplishing counterpulsation within a few minutes of the decision to employ this therapeutic modality and thus should broaden the application of intra-aortic balloon pumping in both medical and surgical settings. Further clinical trials at university and satellite community hospital centers are in progress.

The following article is abstracted.

What Causes Recurrent Angina After Bypass Surgery?

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Arteriographic findings associated with recurrent angina pectoris after coronary bypass surgery were obtained in 38 patients and compared with 60 patients who did not have angina. All patients underwent early (<2 weeks) and late (5 to 70 months, average 2.6 yrs.) postoperative angiography. All patients were discharged with patent grafts (171 saphenous vein, 6 internal mammary artery) and were asymptomatic for at least three postoperative months.

The 38 patients with recurrent angina had significantly higher incidence of progressive coronary disease (47 vs. 18 percent), incomplete surgical revascularization (35 vs. 15 percent) and graft closure (21 vs. 5 percent).

Progressive coronary disease occurred in 29 of 98 patients (30 percent) and 16 of these 29 (55 percent) had recurrent symptoms. The frequency of progression correlated with the time interval between coronary bypass angiograms. Patients with progressive disease did have higher cholesterol levels (264 ± 57 vs. 239 ± 37 mg. per deciliter) than those with stable disease.

Incomplete revascularization was more common early in our experience. Late graft closure occurred in 7.6 percent of all grafts and in 11 percent of patients. Average annual rate of graft closure was 3 percent per year.

This study indicates that late recurrence of angina pectoris after bypass surgery is best correlated with progressive atherosclerosis in the native, nongrafted coronary bed. Primary graft failure appears to play a minor role in the recurrence of symptoms. Continued control of risk factors is recommended after coronary bypass surgery.

Editor's note

The discussion following these papers was not transcribed.

Available physicians listed in new version of AMA registry

For communities and institutions looking for the services of a physician, or for physicians looking for a new practice location, the February, 1981, editions of the *Opportunity Placement Register* and the *Physician Placement Register* are available.

The American Medical Association's opportunity register lists openings for physicians, indexed by specialty, type of practice, location and size of community, date of availability, and financial arrangements. The physician register contains the resumes of physicians wishing to relocate.

Copies of the books and further information on the AMA programs are available from the Physicians' Placement Service, American Medical Association, 535 N. Dearborn St., Chicago, Ill. 60610.

Radiologic Problem of the Month

Montefiore Hospital and Medical Center
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Editor
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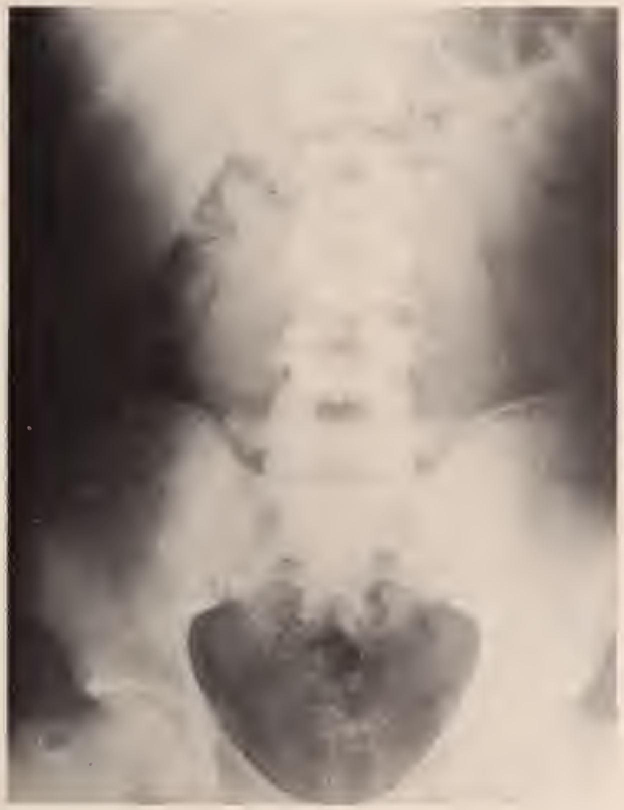
Acute Abdominal Pain



X-ray of a 16-year-old boy with complaint of abdominal pain and vomiting.

Elucidation

Supine view of the abdomen reveals moderate amounts of gas and fecal material in right side of colon extending up to splenic flexure. A small amount of gas and fecal material is also present in the rectum. The significant finding is the oval density overlying the right iliac bone. This density is not homogeneous but has lucency at its center. Both psoas muscle margins are outlined normally.

Appendicolith or coprolith contains inorganic matter, fecal material, and calcium phosphate deposition in varying amounts.[1-3] It differs from fecolith as the latter represents a ball of fecal material without calcium or phosphate. Thus fecoliths are not ordinarily discernible on plain films of the abdomen, unless surrounded by contrast medium such as gas. Appendicolith obtains its radiopacity due to accretion of minerals such as calcium and phosphate crystals. The nucleus of an appendicolith is often inspissated fecal material, mucus, and bacteria. Occasionally a foreign body, such as fruit pit, inorganic material or even a small gallstone which has found its way into the appendiceal lumen, can form the nucleus. Appendicolith is often laminated as observed in the process of calculus formation in any hollow viscus and conforms to the configuration of the appendiceal lumen. The association of appendicolith with acute appendicitis has been documented.[1-3] Clinically, the patients do present varying degrees of abdominal pain with nausea and vomiting. Depending on the severity of inflammation and extension of the infective process, they may have symptoms ranging from mild localized pain to severe signs of extensive peritonitis.

Radiologically, one or more calcifications in the right lower quadrant should give a clue to the diagnosis of appendicolith particularly if the patient has clinical symptoms. Localized ileus may be noted depending on the extent of inflammatory process and the anatomic position of the appendix. Obliteration of the right psoas margin, scoliosis, multiple small gas bubbles in the right lower quadrant, a soft tissue mass displacing air filled cecum and gas in the wall of the appendix are some of the other radiological signs of appendicitis. Appendicoliths are discernible in about 10 percent of adults in acute appendicitis and are multiple in about a third of these patients.[3] In some instances, an appendicolith may be an incidental radiological finding on routine examination of the abdomen for unrelated disorder. However, the presence of appendicolith should portend obstruction and perforation of appendix.

In the differential diagnosis, a bone island may be considered since bone islands are common in pelvic bones, but a bone island should be homogeneously and uniformly dense without any central lucency. A ureteral calculus may simulate appendicolith but the former should be oblong and in the line of the ureter. Occasionally an ectopic or pelvic kidney may show a calculus but there should be a definable soft tissue density to suggest kidney. The calcification is too large for a phlebolith and the location is also unusual. Calcified mesenteric nodes are generally multiple, nodular, and irregularly contoured. Enteric coated medication occasionally may produce similar density but generally, there are multiple densities. No air in the biliary tract is noted to suggest passage of gallstone to this site. Hence, the clinical history, the age and the radiological findings indicate appendicitis. At surgery, an appendicolith with perforated appendix was noted.

Diagnosis

Appendicolith with appendicitis

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P-O-I-S-O-N-S clocks 57,000 calls for help

New York City Health Commissioner Reinaldo A. Ferrer, M.D., in February, announced that the New York Poison Control Center received more than 57,000 calls for assistance last year. One half of the calls were concerned with children 5 years old or younger; 40 percent of those children were under 3 years of age. "The 24-hour-a-day, seven-day-a-week Poison Control Center receives calls for emergency first aid information for poison victims and requests for information on pharmaceuticals and household products that are handled by specially trained pharmacists and chemists," explained Dr. Ferrer. "A backup network of physicians and clinical pharmacologists from Bellevue and other city hospitals are on 24-hour call to provide treatment information for poison victims who have severe symptoms."

Supervisor of the New York Poison Control Center Martin Burke said, "Most calls to the Poison Control Center involve common substances. The more people know about the potential dangers of household products and chemicals, the more careful they will be about keeping such substances away from children. A teaspoon of boric acid powder (often used to control roaches), for example, can kill a child and so can a tablespoon of turpentine. Some prescription drugs are so toxic that just a few pills could kill a child. Children will eat or drink anything; you cannot rely on the bad taste of a substance or warning label to prevent poisoning."

Dr. Ferrer stressed, "If there is any possibility that a drug or other non-food product has been swallowed, call a medical doctor *at once*. Do not wait for symptoms to appear."

The New York Poison Control Center can be reached by dialing the easy-to-remember, telephone number, "P-O-I-S-O-N-S."

"Remember," said Dr. Ferrer, "a safe household, where dangerous substances are properly stored out of the reach of children, is the best prevention against poisoning." Prevention tips include:

- Household product and medicines should be kept in their original containers, since the information on the label can be vital.
- Paint thinners, pesticides, and other chemicals should not be stored in soft drink bottles, beer cans, or other drink or food containers.
- A bottle of Syrup of Ipecac should be kept on hand for small children in case induced vomiting is needed for emergency treatment; consult a physician or the Poison Control Center before using.

First aid for poison victims includes:

- Swallowed poison—if the victim is awake and can swallow, give one or two glasses of water immediately. Call the Poison Control Center or a medical doctor *at once*.
- Poisons in the eye—wash the eye immediately with lukewarm water for 15 minutes. Hold the eye open so that the water can flush away the poison. Call the Poison Control Center or a medical doctor.

Electrocardiograms of the Month

Montefiore Hospital and Medical Center
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Editors
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JULIAN FRIEDEN, M.D.
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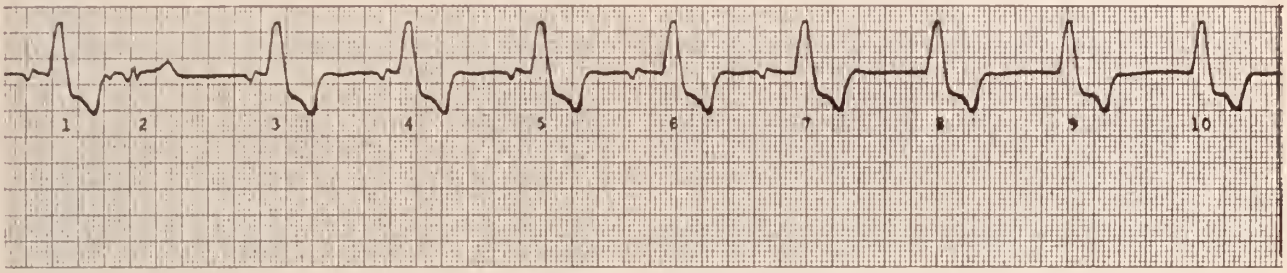
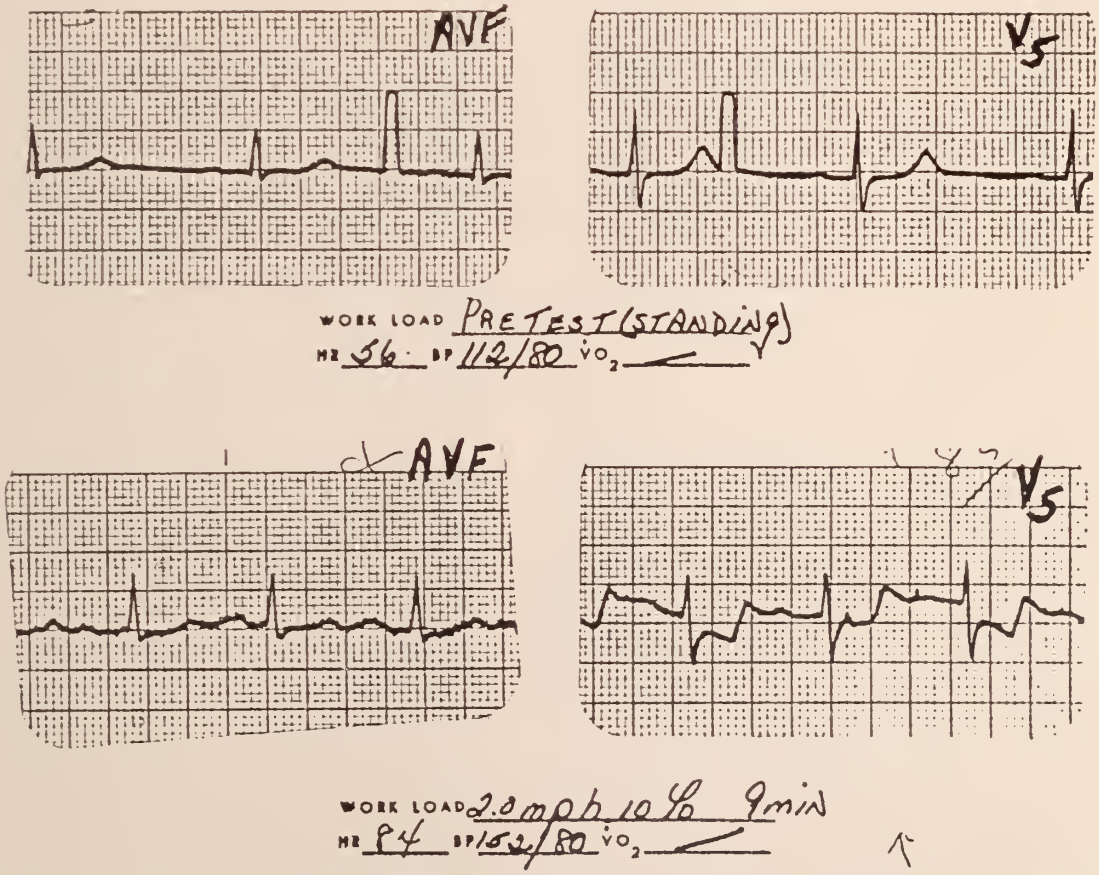


QUESTION 315. Monitor lead. What is the interpretation?



QUESTION 316. The patient was a 66-year-old male with a history of chest pain on exertion relieved by rest. His resting electrocardiagram was normal. Stress test was obtained at the patient's request.

ELUCIDATION

Question 315. After the third beat the ventricular rhythm is regular at a rate of 57 per minute. The QRS is wide, 0.16 seconds in duration. The atrial rate varies. Following QRS 7, the S-T segment is slightly deformed suggesting the presence of atrial activity. A more obvious notch occurs in the S-T segment of QRS, 8, 9 and 10. The notches are due to atrial activity at a rate of 60 per minute. They may represent retrograde depolarization of the atria from the ventricle.

The P wave following QRS 1 is premature and captures the ventricle with a relatively normal QRS. The other P waves are not conducted to the ventricles. The ventricles are under the control of a junctional or idioventricular pacemaker with a regular rhythm at a rate of 57 per minute.

Between QRS beats 3 and 7 the P-R interval prolongs due to a slight difference in the atrial and ventricular rates. Wenckebach type of conduction is not present. The regular R-R interval excludes Wenckebach phenomenon. In Wenckebach periodicity the R-R intervals become progressively shorter until a pause occurs.

Question 316. Lead aVF and V5 taken standing prior to exercise revealed isoelectric S-T segments and positive T waves with a ventricular rate of 56 per min. The second strip was taken after exercise when the patient's pulse rate reached 84 per minute and he had mild chest pain. The S-T segment was depressed 2 mm. and sloped downward for greater than 0.08 seconds. The S-T segment did not return to the isoelectric line until 20 minutes after the test.

The stress test is positive. The S-T segment is depressed more than 1 mm. and the slope of the S-T segment is downward for over 0.08 seconds. The patient with a history characteristic of angina pectoris will usually have a positive stress test.

Acupuncture gains acceptance as treatment for pain

Acupuncture has gained acceptance with a small but growing number of American physicians as treatment for pain, says a report in the February 20 Journal of the American Medical Association.

American physicians have been slow to accept acupuncture largely because it has been presented as fanciful theory based on ancient Taoist philosophy involving the two major forces of yin and yang affecting the bodily energy balance. Diagnosis is based on ritualistic palpation and interpretation of an imaginary 12 different radial pulses. Decisions for treatment are based on the legendary basic elements of fire, earth, metal, water, and wood.

This makes for delightful reading in the history of Oriental medicine, but is not convincing to the Western trained physician, says George A. Ulett, M.D., a St. Louis physician.

Also, with the initial publicity surrounding former President Nixon's visit to China, the media overreacted to this novel Oriental approach to medicine and publicized it widely as a cure-all. This it is not, and hence the initial flurry of excitement soon receded, Dr. Ulett declares.

There are some theories on how acupuncture works, but they have not been finally proved, he says.

Notwithstanding the early problems, a small but increasing number of U.S. physicians have found acupuncture to be a useful part of their practice, despite their inability to explain in terms acceptable to their colleagues how it works, Dr. Ulett reports.

"For those physicians faced with the necessity to treat patients with pain that is chronic and nonresponsive to the usual methods of chemical analgesia, acupuncture now seems a reasonable alternative."

Traditional acupuncturists select from among 400 or more points located on hypothetical meridians. Moderns have found that a much smaller number of points actually are needed to relieve pain. Many of these points on the body coincide with the points to which electrical leads are attached for measuring body activity, such as electrocardiograms. Some now think that acupuncture works by stimulating release of endorphins in the brains of humans. This is nature's substance for control of pain.

Much more remains to be learned about acupuncture, but "the evidence is now available to place this age-old Chinese healing art, modernized to U.S. standards, on a solid scientific base. There seems little doubt that acupuncture-type stimulation can and will play an increasingly important role in the relief of pain."

Renal-Cell Carcinoma

Removal of intracardiac extension with aid of cardiopulmonary bypass

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It is well known that renal-cell carcinoma tends to extend through the renal vein into the inferior vena cava (IVC).[1] The tumor also may extend along the vena cava into the right atrium.[1-9]

The following case illustrates that a renal-cell carcinoma extending into the right atrium by way of the inferior vena cava can be successfully removed with the aid of cardiopulmonary bypass without any increase in morbidity, resulting in complete relief of symptoms. Literature was reviewed concerning the management of this problem.

Case report

A 63-year-old white male was admitted to the Buffalo General Hospital, Buffalo, New York, for evaluation of anemia, ascites, hepatomegaly, bilateral pedal edema, and hypertension, all of six months' duration. Physical examination showed a round, firm mass in the right upper quadrant of the abdomen indistinguishable from an enlarged liver. On auscultation of the chest, there was a Grade I/VI diastolic murmur at the right lower parasternal area. Both lower extremities showed a moderate degree of edema with erythema and engorgement of superficial veins. Laboratory data: hemoglobin level was 11.2 Gm. per 100 ml. and the leukocyte count was 8,800 per cu.mm. with normal differential; serum electrolytes and liver function studies were within normal limits, and urinalysis results were normal. An electrocardiogram showed a first-degree A-V block, and chest x-ray film findings were within normal limits. Intravenous urography with nephrotomography showed a solid mass in the right kidney with distortion of the calyces. The urinary bladder was "pear" shaped.[10] A right renal arteriogram showed a highly vascular tumor in the kidney with intrarenal arteriovenous shunting (Fig. 1A). The main renal vein was not visualized, but large venous channels were seen joining the inferior vena cava, with retrograde flow into it. An inferior vena cavogram revealed a tumor mass at the level of the right renal vein and total occlusion of the retrohepatic inferior vena cava (Fig. 1B). There was dilatation of the azygos vein through which the right atrium was faintly filled, and a tumor thrombus within the atrium was suspected. Ultrasound of the upper abdomen showed a dilated retrohepatic vena cava with numerous streaky dense echoes compatible with a solid tumor thrombus extending into the right atrium (Fig. 1C). The transverse scintiscan showed dilated hepatic veins without tumor invasion.

On January 8, 1979, the patient underwent surgical excision of the tumor with the aid of cardiopulmonary bypass through a long sternal splitting and midline abdominal incision. The surgery was carried out with a simultaneous team approach between the general-surgery and cardiac-surgery services. The right kidney was markedly enlarged, measuring 15 by 9 by 8 cm., with no capsular invasion by the tumor. The center of the kidney was replaced by a mass that replaced the cortex and the medulla and compressed the renal pelvis. The liver was engorged and practically double in size, but without any evidence of metastasis. After mobilization of the duodenum, the hepatic artery, portal vein, left renal vein, and right renal artery and vein were dissected free prior to heparinization. The patient was cannulated for cardiopulmonary bypass. An arterial input line was inserted into the ascending aorta, and the superior vena cava cannula was inserted through the right atrial appendage with special attention not to disturb the tumor in the right atrium; the second venous cannula was inserted through the left common femoral vein. Cardiopulmonary bypass was started and the patient was cooled down to 30°C. A radical right nephrectomy was performed. The aorta and main pulmonary artery were crossclamped to prevent tumor embolization, the right atrium was opened longitudinally, and a large rubbery right atrial tumor, measuring 5 by 5 by 5 cm., was found extending into the inferior vena cava (Fig. 2); the inferior vena cava then was opened longitudinally at the level of the left renal vein. The hepatic artery and the portal vein

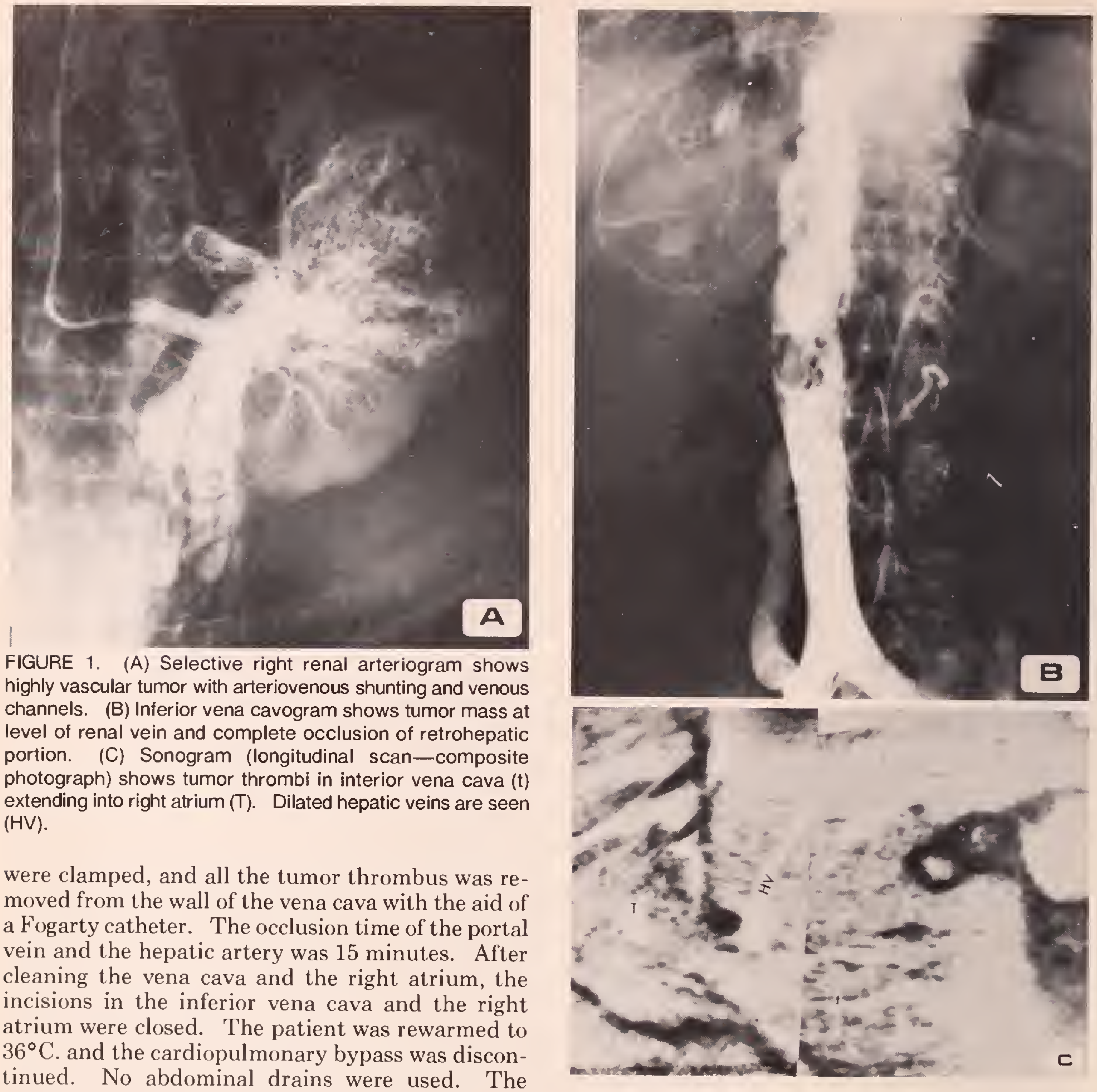

FIGURE 1. (A) Selective right renal arteriogram shows highly vascular tumor with arteriovenous shunting and venous channels. (B) Inferior vena cavogram shows tumor mass at level of renal vein and complete occlusion of retrohepatic portion. (C) Sonogram (longitudinal scan—composite photograph) shows tumor thrombi in interior vena cava (t) extending into right atrium (T). Dilated hepatic veins are seen (HV).

were clamped, and all the tumor thrombus was removed from the wall of the vena cava with the aid of a Fogarty catheter. The occlusion time of the portal vein and the hepatic artery was 15 minutes. After cleaning the vena cava and the right atrium, the incisions in the inferior vena cava and the right atrium were closed. The patient was rewarmed to 36°C. and the cardiopulmonary bypass was discontinued. No abdominal drains were used. The postoperative course was benign without any complications, and the patient was discharged on the eighth postoperative day.

Histologic evaluation of the tumor showed the characteristics of a Grade IV renal-cell carcinoma, mixed clear and granular-cell type; 1.5 cm. of the right renal vein, which showed tumor invasion, was removed. The lymph nodes removed from the hilar fat were negative for tumor. The vena cava was not resected, but at the time of the removal the obvious adherence of the tumor to the cava surface became evident.

Nine months after the surgery, the patient developed back pain radiating to the left buttock, with decreased knee and ankle reflexes. A myelogram showed subtotal block of the contrast at the level of the L_4 to L_5 (the fourth to the fifth level) and T_{11} to T_{12} (the eleventh to the twelfth vertebra) with the appearance of extradural defect. Decompressive laminectomy resulted in complete relief of neurologic symptoms and disappearance of neurologic signs. Biopsy of epidural tissue showed a metastatic renal-cell carcinoma. The patient was in reasonably good condition on chemotherapy following the second surgery for three months, and expired one year after the initial surgery. During this year, he had had about an 11-month asymptomatic period.

Comment

Extension of the tumor into the inferior vena cava occurs in 3 to 10 percent of renal-cell carcinomas,[6,8,11] and approximately 41 percent of these show extension into the right atrium.[1,12] The grim prognosis of the vena caval extension by renal-cell carcinoma

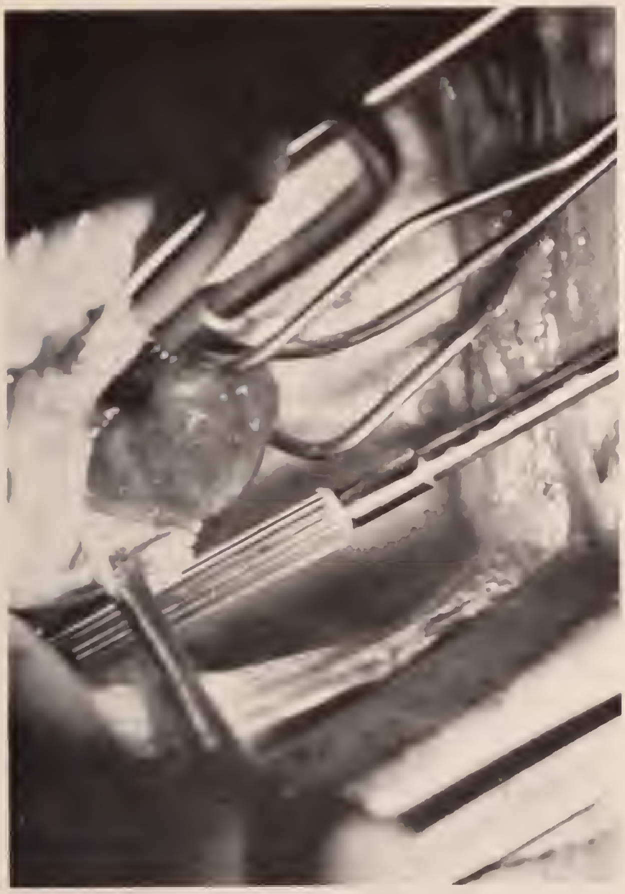

FIGURE 2. Operative photograph shows right atrial tumor.

seems to be overemphasized in the early literature;[13] a more favorable prognosis was suggested in the recent literature,[8,14] especially when the histologic grade of the tumor is favorable.

With aggressive surgical management of the renal-cell carcinoma, Skinner, Pfeistor, and Colvin[8] reported a 5-year survival rate of 55 percent and a 10-year survival rate of 43 percent. Even when the tumor extends into the right atrium, successful excision of the tumor was reported with or without cardiopulmonary bypass, with some in long-term survivals. Skinner, Pfeistor and Colvin[8] reported a patient similar to ours in which intra-atrial extension of renal-cell carcinoma was removed by using a Satinsky clamp over the lower portion of the right atrium, without cardiopulmonary bypass. Freed and Gliedman[3] describe a technique with a Foley catheter for removal of right atrial extension of renal-cell carcinoma. Marshall et al.[6] reported unsuccessful catastrophic experience of two cases in which the surgical removal of the caval tumor was tried without cardiopulmonary bypass.

The clinical features of the reported cases[2,4-7,15] of the renal-cell carcinoma invading the heart or pulmonary circulation which were managed with cardiopulmonary bypass are shown in Table I. In our patient, direct visualization of right atrial tumor and crossclamping of the main pulmonary artery decreased the possibility of intraoperative tumor embolization.[6]

A review of the reported seven cases shows com-

TABLE I. Clinical features of patients operated on with cardiopulmonary bypass

Author	Sex	Age	Primary Renal Site	Main Symptom	Concomitant IVC Resection	Postoperative Complication	Follow-up
Present Case	M	63	Right	Pedal edema, anemia, ascites	–	None	Complete relief of symptoms. Decompressive laminectomy done to relieve neurologic symptoms due to epidural metastasis developed 9 months later.
Ardekani et al.[2]*	M	59	Right	Pedal edema	–	Transient CVA	Died 8 months after surgery from bronchopneumonia
Farrell et al.[4]	M	46	Right	Anemia, right flank mass	+	None	Brain metastasis 18 months after surgery
Gleason et al.[5]	M	58	Right	Hematuria	+	None	Well 9 months after surgery with brain metastasis
Marshall et al.[6]	Not given	Not given	Left	Not given	–	Expired due to postoperative pulmonary complication	. . .
Paul et al.[7]	M	58	Right	Dyspnea, pedal edema	+	None	Well after 24 months
Doughtry et al.[15]	M	68	Right	Shock due to massive pulmonary emboli	–	Transient CVA due to carotid atheroma	Well after 30 months

* Primary lesion in the left kidney was not removed.

mon features; almost all the patients were male between the sixth and seventh decades. Signs of inferior vena cava obstruction were absent in more than half the cases,[12] the use of ultrasound or an echocardiogram allowed proper preoperative planning for this difficult surgical problem.[16]

Most of the patients operated on under cardiopulmonary bypass had a benign postoperative course with minimal morbidity.

Different types of incisions varying from two separate intercostal incisions to thoracoabdominal incisions were used.[5,7] The right lateral position or lumbar lordotic position always carries more risk of acute obstruction of tricuspid valve by the right atrial tumor as shown by Paul, Rhodes, and Skow[7] and Utley et al.,[17] and does not allow cannulation of the ascending aorta. Median sternotomy incision connected to the midline abdominal incision, as in our case, provides several advantages in addition to excellent exposure of the retrohepatic vena cava.[18] Concommitant resection or division of the inferior vena cava below the hepatic vein level at the time of the right nephrectomy may be necessary.[4,7,8,19] This type of en-block incision is indicated when the tumor thrombus is densely affixed to the wall of the inferior vena cava. Aggressive surgical approach with a well-coordinated and -planned application of cardiopulmonary bypass should provide immediate symptomatic relief of inferior vena cava obstruction with a minimal risk. Any long-term prognosis depends on various other factors,[8,14] such as histopathologic grade, involvement of regional lymph nodes, or perinephric fat. Temporary occlusion of the main pulmonary artery, while removing the right atrial tumor, will prevent tumor embolization. The involvement of the inferior vena cava and right atrium does not necessarily mean a hopeless situation; palliation itself is gratifying.

Summary

A 63-year-old white male developed anemia and signs of inferior vena cava obstruction. Studies revealed a right renal-cell carcinoma with extension into the inferior vena cava and right atrium. Along with radical right nephrectomy, the tumor in the inferior vena cava and right atrium was removed, using cardiopulmonary bypass. Involvement of inferior vena cava by renal-cell carcinoma and its extension into the right atrium is well known and not a hopeless situation. Aggressive surgical management with carefully planned team approach using cardiopulmonary bypass appears to offer a safe, effective relief of symptoms and the best chance for survival.

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Injury of Superior Mesenteric Vein

Laparoscopic procedure with unusual complication

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Laparoscopy has become a widely accepted procedure in the United States.[1,2] The complications have been reduced to an acceptable minimum and are unique to the nature of the procedure.[1] In this article we report an injury to the superior mesenteric vein, a complication that has not been reported in the English literature to our knowledge.

Case report

A 38-year-old, gravida four, para four, was admitted for a routine laparoscopic tubal sterilization procedure. Findings on physical examination were within normal limits, and the patient was prepared for the procedure in the usual manner.

A subumbilical incision was made with the abdominal wall stretched laterally. At this time, it appeared that the peritoneal cavity had been entered. Exploration of the incision confirmed the entry and a rapidly increasing hematoperitoneum was noted. Prompt laparotomy was performed and a rent in the superior mesenteric vein was identified as the source of the bleeding. The vein was doubly ligated with four-0 silk sutures. The planned sterilization procedure was performed and the postoperative course of the patient was uneventful.

The technique of laparoscopy has been described in the literature. Many structures and organs have been injured either by needle or trochar, or during other manipulations.[1] To our knowledge, there has been no report of an injury to the superior mesenteric vein with the initial subumbilical incision. In this reported case, the surgeon failed to appreciate the degree of a rectus diastasis in this multiparous patient. With the patient in Trendelenburg position, the superior mesenteric vein was apparently well exposed and injured on penetration of the abdominal wall.

To avoid an inadvertent entry into the peritoneal cavity with the initial subumbilical incision, especially in thin and multiparous individuals, we recommend the use of Allis clamps or towel clips. These should be placed periumbilical and the abdominal wall elevated. This would avoid injury to intra-abdominal structures in case of inadvertent entry into the peritoneal cavity, except in cases of extensive intra-abdominal adhesions.

In cases of suspected injury to intra-abdominal structures or hematoperitoneum, laparotomy is always indicated.

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(*continued from page 910*)

President Reagan's proposed cuts in Social Security and programs for the unemployed were adopted in principle by the Senate Finance Committee in the first major test of the Administration's goals. With Republicans voting as a bloc, the Committee voted down a series of Democratic efforts to soften President Reagan's economies for a range of programs, including Medicare and Medicaid.

On the Senate Labor and Human Resources Committee, a Democratic assault on cuts was led by Senator Edward Kennedy (D., Mass.), who was defeated 9 to 7 on all but a few of his motions to restore funds for health programs. An 8 to 8 tie vote killed a Kennedy effort to add $89 million to the $58 million requested by the Administration for the embattled health planning program, which the Administration wants to kill.

On the House side, the House Ways and Means Subcommittee on Social Security has recommended that the Administration's cut of $2.4 billion be adopted.

* * *

Medicaid payments to physicians would be raised to the levels allowed for Medicare under a proposal by the National Commission on Social Security.

The bipartisan commission was formed five years ago by Congress to make an exhaustive study of the Social Security System and to submit recommendations for changes to Congress.

In its report, the nine-member commission said "Medicaid's reimbursement rates must be set high enough to encourage the participation of physicians." Not only should Medicaid fees be lifted to the Medicare level, but "the fees of both programs will ultimately have to be reasonably equivalent to those paid for privately-purchased services, or patients under both programs will be denied access to medical services."

* * *

The Reagan Administration will not seek to eliminate the Federal Trade Commission's antitrust authority but is recommending deep cuts in the agency's appropriations. An earlier report that the FTC's antitrust division was imperiled has been denied. Over the next three years, the Administration wants to scale back the FTC's budget from $78 million to $41 million. The antitrust activities of FTC often parallel those of the Justice Department. Many of the FTC's actions against medical and health related organizations involving codes of ethics, advertising, and so forth, have been FTC antitrust cases.

* * *

Major drug manufacturers plan a Commission to collect and distribute basic research leads for drugs to treat rare diseases.

Lewis Engman, President of the Pharmaceutical Manufacturers Association, has told Congress that through the Commission's work "every interested scientist and research institution, every society concerned with a rare disease, and every potential sponsor will be able to obtain information about the compounds and research leads of investigators who wish to use this mechanism."

The new Commission on Drugs for Rare Diseases was announced before a hearing of the House Commerce Subcommittee on Health. Engman said 40 products have

(*continued on page 950*)

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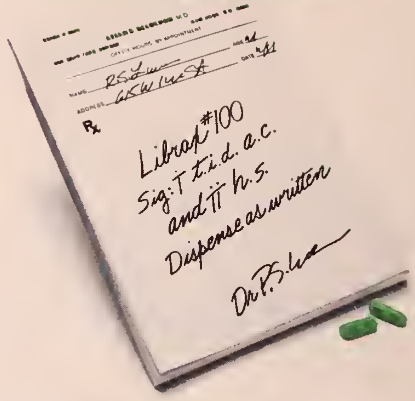
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Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated) Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established

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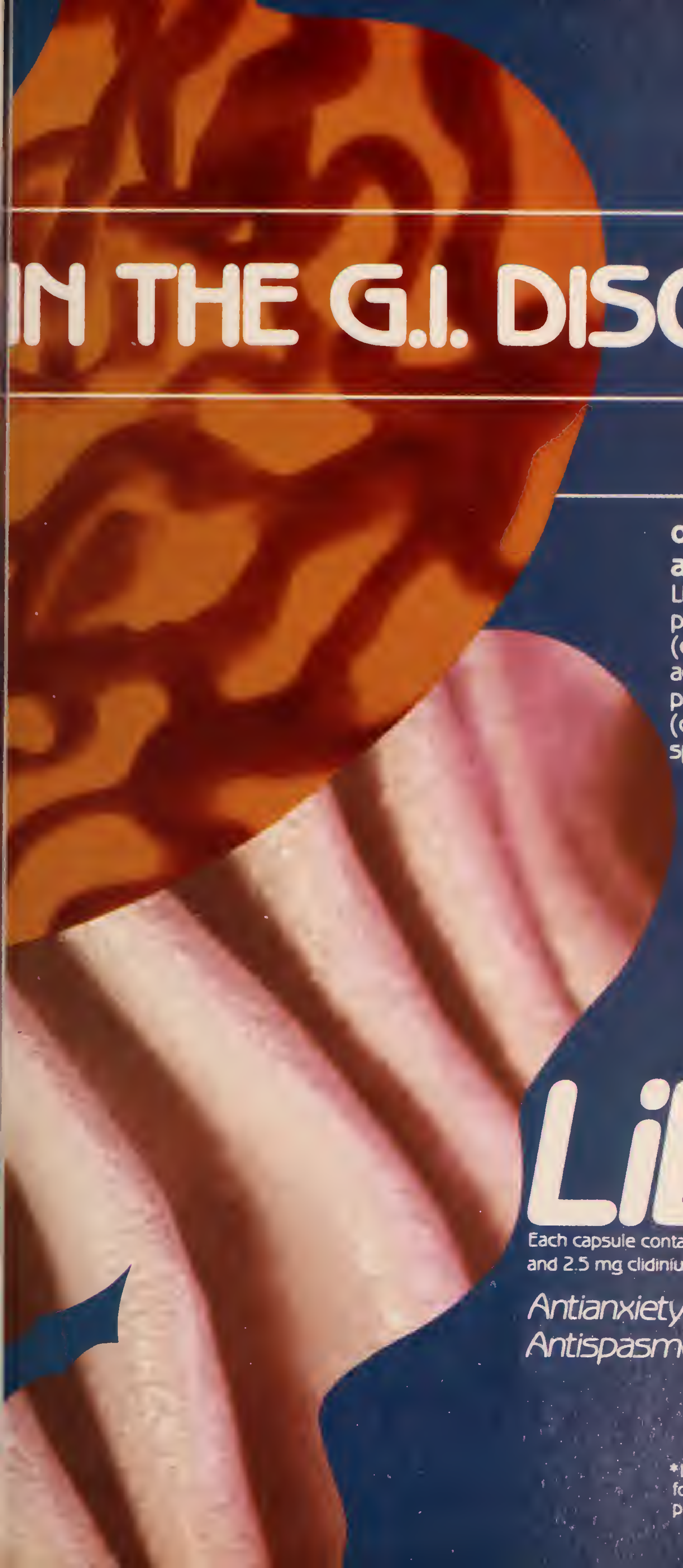

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Adenocarcinoma of the Prostate

Mucin secreting

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Mucous secreting carcinoma of the prostate is a rare condition. Since Boyd[1] described this condition in 1882, less than 30 cases have been reported in the English literature. We are reporting an unusual case of mucin-secreting adenocarcinoma of the prostate.

Case report

A 72-year-old Spanish-speaking male was admitted to the hospital January 16, 1977, with an acute urinary retention of 24 hours' duration. He gave a history of progressive prostatism for the past month. There was no significant past history. Findings on physical examination were essentially unremarkable, except for a hard nodular prostate of approximately 20 Gm., free from the rectum. Results of laboratory work-up were unremarkable, except for a very high acid phosphatase (total acid phosphatase, 3,368 K.A., (King Armstrong units) and prostatic acid phosphatase, 322 K.A.). Excretory urogram, (intravenous pyelogram), showed normal upper tracts. Metastatic series and bone scan showed diffuse, blastic metastasis in the axial skeleton, skull, ribs, and pelvis. Findings on chest x-ray films showed a metastatic nodule, posterior to the right hilum. Findings on liver and spleen scan were negative.

The patient underwent a perineal needle biopsy of the prostate and frozen section, which showed carcinoma of the prostate. Transurethral resection of the prostate and bilateral orchiectomy were performed. A permanent section of 22 Gm. of resected tissue showed invasive, mucin-producing adenocarcinoma of the prostate with a few areas of cribriform pattern (Fig. 1). The brain scan showed multiple cerebral lesions. Findings on work-up for gastrointestinal malignancy were negative.

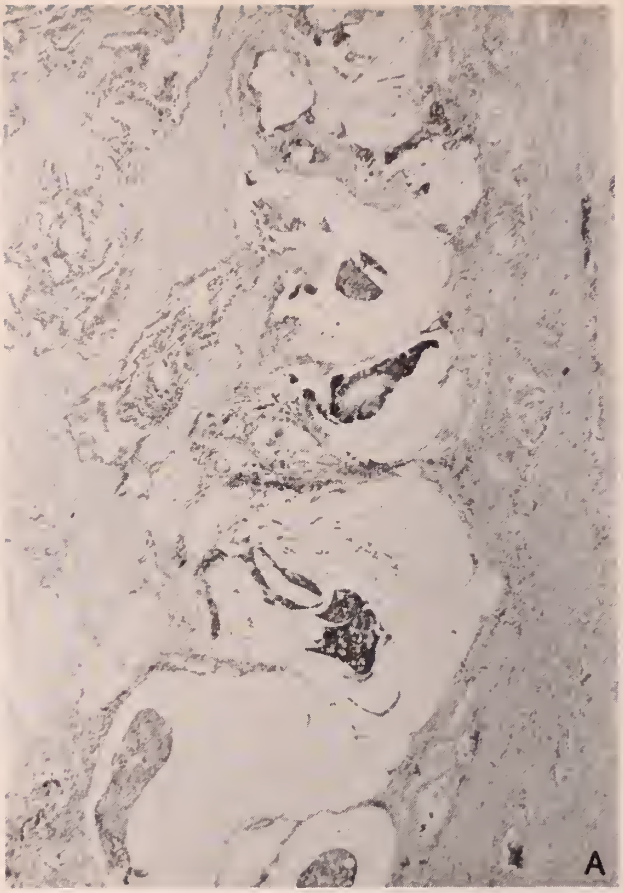


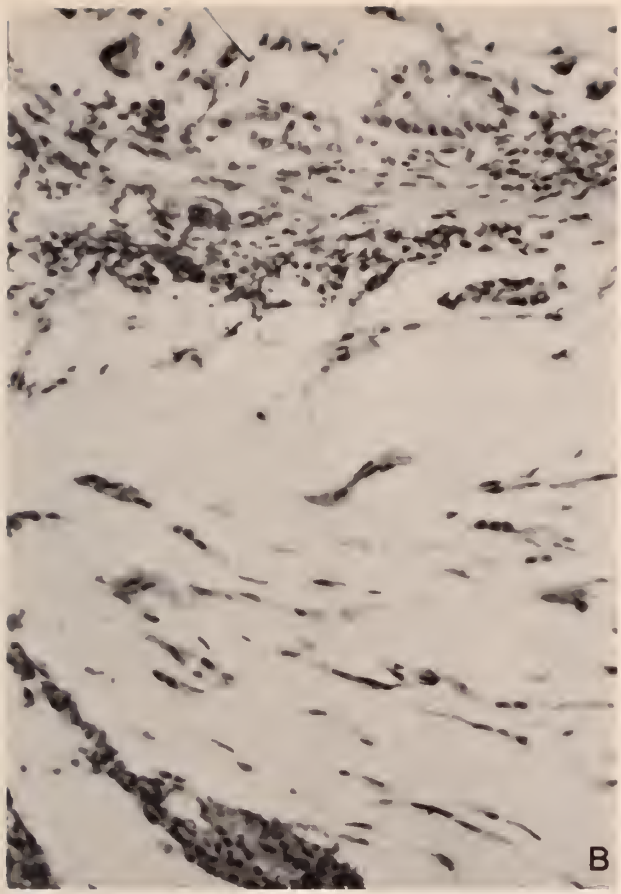
FIGURE 1. Microphotographs. (A) Cribriforming glandular pattern with mucous production, rupture of lining cells and mucous pools, interfacing with prostatic stroma.

Since he was found to have widespread metastasis and deterioration of his mental condition, intravenous diethylstilbestrol diphosphate (Stilphostrol), 1 Gm. for 10 days, was given. Following this treatment, the acid phosphatase level came down to a total of 12.9 and the prostate was 10.6. His general condition deteriorated rapidly and he died two months postoperatively.

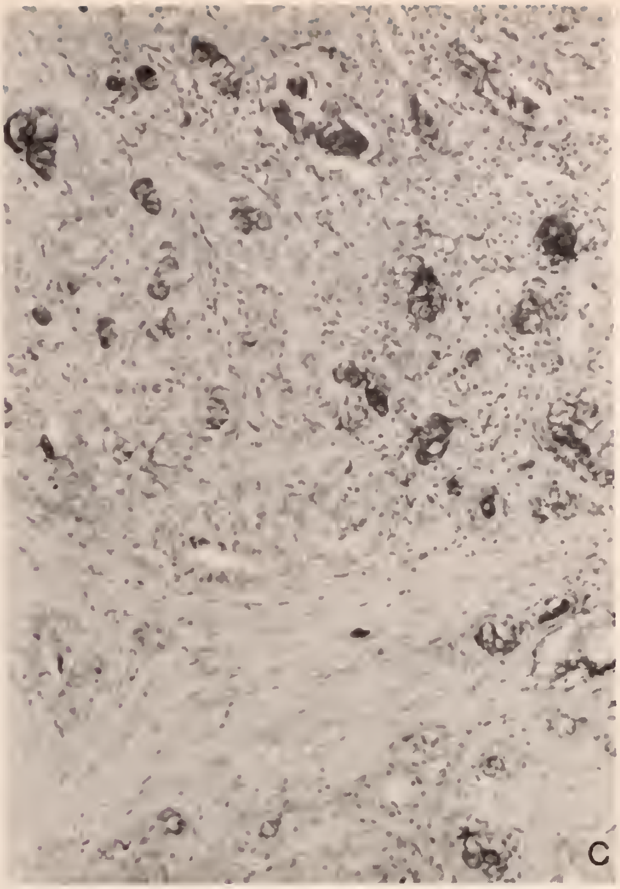
Comment

Histogenesis of mucous-secreting adenocarcinoma of the prostate remains uncertain. It has been suggested that this type of prostatic carcinoma arises in the middle portion of the prostate, does not metastasize to the bone, and is associated with normal serum acid phosphatase activity. It usually metastasizes to the lungs, liver, and lymph nodes.[2]

The histopathologic and diagnostic criteria of our case are similar to those described by Tannenbaum[3] and all possibilities of mucin-producing tumors of the bladder, urethra, and colon were ruled out. Our case is associated with a very high acid phosphatase level,



(B) Ruptured area interfacing with inflamed prostatic stroma; feature of colloid-type adenocarcinoma. (Hematoxylin and Eosin stain, original magnification ×400.)



(C) Compact glandular cribriforming area composed of cuboidal cells, with avoid nuclei, prominent nucleoli reminiscent of conventional prostatic adenocarcinoma; shows dark, stringy, bubbly luminal mucin-positive material. (alcian blue periodic acid Schiff stain ×160).

widespread bony metastasis and brain metastasis, with rapid deterioration.

In most of the reported cases, metastasis occurred late in the disease, and only three previous cases had bony metastasis.[2,4,5] Brain metastasis has never been reported before. Our case showed widespread brain metastasis; although many investigators have suggested that this tumor is less aggressive in nature than nonmucin-producing adenocarcinoma. The rapid progression of this disease has shown that this tumor can also be a very aggressive one.

Summary

This was a case of mucin-secreting adenocarcinoma of the prostate with a very high acid phosphatase level. The patient had rapid progression of the disease and died within a month following diagnosis.

Acknowledgment. With grateful acknowledgment to Harold P. Gaetz, M.D., Associate Director, Pathology Department, St. Luke's Hospital Center, for the microphotographs.

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Gastric Rupture from Blunt Abdominal Trauma

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Gastric rupture due to blunt abdominal trauma is an uncommon occurrence, especially in children. In a review of the English language literature from 1930 to 1975, Yajko, Seydel and Trimble[1] found only 35 cases. Since then an additional 16 cases have been reported.[2–8] The present report adds an additional case and reviews the literature since 1930.

Case report

Shortly after eating and subsequently thrown from the passenger seat of a pick-up truck, a 10-year-old female arrived in the hospital with a pulse of 120 beats per minute and a palpable blood pressure of 60 mm. Hg systolic. There were superficial abrasions of the chest on the left side. The abdomen was distended, diffusely tender, and without bowel sounds. Crepitus was present in the left upper abdominal quadrant. Additional injuries included a fracture of the left arm and an open laceration of the right knee. After receiving 1.5 L. of lactated Ringer's solution intravenously, she became coherent and her blood pressure stabilized at 100/60 mm. Hg. Findings on chest x-ray films and flat plate abdominal x-ray films were normal and showed no free intraperitoneal air. Peritoneal lavage revealed hemoperitoneum.

Upon opening the peritoneum at operation, air issued from the peritoneal cavity, which contained free bile and partially digested food. A 5-cm. perforation of the anterior wall of the stomach along the distal lesser curvature was present, as well as a 12-cm. perforation of the posterior wall of the stomach. There also was an avulsion tear of the jejunum at the ligament of Treitz. There were no other intra-abdominal injuries. Repair of the stomach lacerations was performed with one-layer closure, and after resection of the proximal jejunum, an end-to-end duodenojejunostomy was done. A gastrostomy tube was inserted, the abdomen was irrigated, and Penrose drains were placed in the left colic gutter and the lesser sac.

Postoperatively the patient required mechanical ventilation for respiratory failure for three days due to pulmonary contusion. She received a seven day course of broad spectrum antibiotics. The drains were removed on the seventh postoperative day, at which time she was started on oral intake of liquids. On the ninth postoperative day she complained of abdominal pain and had crepitus and tenderness along the right rectus muscle. Her temperature was elevated to 39°C. Computerized tomography scan of the abdomen revealed no intra-abdominal collection but suggested a gastric fistula which was confirmed by upper gastrointestinal series and originated from the anterior suture line. The wound was opened revealing fascial necrosis without evisceration. She was placed on nasogastric suction, intravenous alimentation, and wound care. Nine days later the fistula closed. She was gradually started on oral feedings and discharged 35 days after injury eating a regular diet without difficulty.

Comment

Gastric rupture from blunt abdominal trauma is not a frequent occurrence. Its incidence is estimated as occurring in 0.9 to 1.7 percent of hollow viscus injuries due to blunt trauma.[9,10] Information from 16 cases reported since 1975, in addition to the present case, is summarized as follows:

Age	
Range 2 to 63 years < 16 years 13 patients	Avg. 18
Etiology	
Motor Vehicle Accident	14
Physical Violence	2
CPR (Cardiovascular Pulmonary Resuscitation	1
Recent Meal	13 (77 percent)
Pneumoperitoneum on X-Ray	9 of 14 (64 percent)
Shock	9 (53 percent)
Sites of Perforation	
Anterior wall	9
Greater curve	5
Posterior wall	2
Lesser curve	1
Transection	2
Other Injuries	13 (77 percent)
Splenic	9 (53 percent)
Liver	4 (23 percent)
Orthopedic	7 (41 percent)
Bowel	5 (29 percent)
Mortality	2 (12 percent)
Complications	12 of 15 survivors (80 percent)
Intra-abdominal abscess	7
Pulmonary	7
Wound	4
Gastric fistula	3
Gastrointestinal bleed	3

* – No x-ray in 3 cases

The majority (78 percent) of cases reported since 1975 involved patients in the pediatric age group in contrast to Yajko, Seydel, and Trimble's[1] earlier review in which only 32 percent of the patients were less than 16 years old. Motor vehicle accidents remain the most frequent cause of gastric rupture, and similarly, a high incidence of recent eating is apparent in both reviews.

Patients with gastric rupture appear with abdominal pain and tenderness and are often in shock (86 percent in Yajko, Seydel, and Trimble's[1] review; 53 percent in the present review). Subcutaneous emphysema may appear via the mediastinum when rupture occurs near the cardioesophageal area.[1] In the present case, the rupture was distal to this area and the abdominal wall crepitus was due to the presence of peritoneal air in a patient with a thin abdominal wall. Although chest and abdominal x-ray films may reveal the presence of free intraperitoneal air, this may be absent in up to 50 percent of the cases.[8]

Any portion of the stomach may rupture as a result of blunt trauma, but the anterior gastric wall was most often involved. Although associated abdominal injuries were somewhat more frequent in our review, splenic injury was the most common additional injury in both series.

The mortality of the cases compiled here was 11 percent, whereas in earlier reports it has ranged from 40 to 66 percent.[1-8] Complications occur in a significant number of survivors, (80 percent in our review), even though most patients were operated on within hours of their injury. The majority of complications were septic in nature with intra-abdominal abscesses and wound infections predominating. Since 1975 the reported incidence of postoperative gastric fistula from a suture line is 10 percent. It is not clear if this high figure is due to inadequate debridement of the injury.

Summary

A case report and review of the literature on gastric rupture from blunt abdominal trauma is presented here. There is an apparent increased incidence of this injury in the pediatric age group. The mortality rate has diminished although morbidity remains high. As an isolated lesion, rupture of the stomach is rare.

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Spontaneous Rupture of Splenic Artery and Cerebrovascular Accident

With systemic lupus erythematosus

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Spontaneous rupture of solid organs is a rare complication of SLE (systemic lupus erythematosus). Spontaneous rupture of both the spleen and liver have been reported.[1,2] We describe a patient who had a subarachnoid hemorrhage and a spontaneous rupture of the splenic artery in the absence of obvious vasculitis or histologic abnormalities of the spleen.

Case report

In January, 1970, SLE was diagnosed in a 37-year-old black woman with fever, alopecia, arthritis, malar rash, and nephritis. She had a positive LE (lupus erythematosus) prep and fluorescent antinuclear antibody test. Her hemoglobin was 8.6, hematocrit 23, white blood cell count 7,100 per cubic millimeter, platelet count 200,000 per cubic millimeter, and negative findings on Coombs' test. Prednisone, 40 mg. per day, controlled her disease and she was maintained on 10 mg. of prednisone and 100 mg. of azathioprine daily. Over the next nine years, she had several exacerbations manifested by thrombophlebitis, malar rash, and leg ulcers over both medial malleoli. PT (prothrombin time), PTT (partial thromboplastin time), and platelet counts showed consistently normal results.

In September, 1979, she developed calf tenderness, intermittent fevers, arthralgias, and fatigue. Her white blood cell count was 2,600 per cubic millimeter with a normal differential, hematocrit 32, platelet count 225,000 per cubic millimeter; findings on Coombs' test and ANA (antinuclear antibodies) were negative; and serum C3 was 74 mg. per 100 ml. (normal: 60 to 90 mg. per 100 ml.). The leukopenia was thought to be secondary to azathioprine bone marrow toxicity. This drug was stopped and prednisone, 10 mg. daily, continued. The calf tenderness failed to improve with bed rest, and in October, 1979, she was admitted to Kings County Hospital for treatment of thrombophlebitis, her other symptoms having subsided.

On admission, the patient was in no acute distress and her vital signs were normal. The skin over both lower legs was dystrophic with areas of hyper- and hypopigmentation. Her calves were warm, swollen, and tender with a positive Homans' sign bilaterally. Findings on physical examination were otherwise normal. Hemoglobin was 10.8, hematocrit 31.3, white blood cell count 3,400 per cubic millimeter (69 percent polymorphonuclear leukocytes, 19 percent lymphocytes, 10 percent monocytes) and Coombs' test result was negative; platelets were adequate on smear, the PT was 12.7/11.7 seconds, PTT was 20.2/25.9 seconds and ESR (erythrocyte sedimentation rate) 54 mm. per hour (Wintrobe). Electrolytes, glucose, blood urea nitrogen, creatinine, urinalysis, tests of liver function, serum C3, chest x-ray, and electrocardiogram test results were normal. Findings on a Doppler study were consistent with venous thrombosis.

The thrombophlebitis improved with bed rest, warm soaks, and intravenous heparin infusion of 24,000 units daily. On the fifth hospital day, the platelet count was 86,000 per cubic millimeter. Repeat platelet counts over the next week ranged from 100,000 to 176,000 per cubic millimeter. On the ninth hospital day, intravenous heparin was discontinued and subcutaneous heparin, 12,000 units daily, was begun. On the eleventh hospital day, she complained of nausea and abdominal pain. Her temperature was 101° F., with a normal pulse rate, blood pressure, and abdominal examination. Platelet count was 144,000 per cubic millimeter, PT 19.2/11.0 seconds, PTT 96/27 seconds, fibrin split products negative, and fibrinogen 130 mg. per deciliter (normal: 200 to 400 mg. per deciliter). Heparin was stopped. The next day she had a syncopal episode. Physical examination revealed a blood pressure of 90/60, temperature 103°F., and diffuse abdominal tenderness with distention and ascites. Gentle abdominal palpation failed to reveal any masses or organomegaly. During the ensuing eight hours her hematocrit fell from 31 to 14 and the PT and PTT remained abnormal (16/11 seconds and 120/27 seconds respectively). Stool and gastric aspirate were hematest negative. Despite vigorous fluid replacement and transfusions of blood and fresh frozen plasma, the patient failed to stabilize and an emergency laparotomy was done. Several liters of blood were noted in the abdomen. A ruptured splenic artery was the only site of active bleeding. A splenectomy was performed and three liters of blood were autotransfused. Findings on pathologic examination of the splenic artery were normal without evidence of vasculitis or aneurysms. The splenic parenchyma was normal, and penicillar arteries showed mild periarterial fibrosis and fibrinoid degeneration compatible with systemic lupus erythematosus.

The patient's postoperative course was complicated by an abnormal coagulation profile (PT 16/11 seconds, PTT 109/26 seconds, fibrinogen 110 mg. per deciliter, fibrin split products 10 to 20 micrograms per deciliter (normal: 0 to 10 micrograms per deciliter), and platelet count 40,000 per cubic millimeter). The ANA became positive in a titer of 1:160 and serum C3 fell to 35 mg. per 100 ml. After transfusions of whole blood, fresh frozen plasma, and platelets, the coagulation profile returned to normal and remained normal. Her hematocrit was stable at 32 and her blood pressure remained normal.

On the ninth postoperative day, she complained of severe headaches and blurred vision. Findings on neurologic examination, blood pressure, and coagulation profile were normal. However, the next day, she became obtunded with dilated pupils and flaccid paralysis of all four extremities. Results of lumbar puncture and computerized axial tomography of the head were consistent with both subarachnoid and intracerebral hemorrhages. At this time, her coagulation profile was normal. Treatment with dexamethasone, 16 mg. intravenously daily, was instituted and supportive intensive care maintained. Over a period of two weeks she recovered full motor, sensory, and intellectual function. Repeat ANA titer was 1:80 and C3 103 mg. per 100 ml.

During a follow-up period of 11 months, she has been living at home and functioning independently in all activities of daily living. She attends rheumatology clinic where she is being treated with tapering doses of prednisone.

Comment

This patient was admitted to the hospital with an exacerbation of systemic lupus erythematosus (SLE) and suffered two major hemorrhages. Previous reports of spontaneous rupture of the spleen in SLE described splenic parenchymal fragmentation in the absence of either vasculitis or coagulopathy.[1,3] A ruptured splenic pedicle is one of the anatomic types of spontaneous splenic rupture described by Orloff and Peskin.[4]

Spontaneous rupture of the splenic artery is rare and is usually secondary to trauma, aneurysmal rupture, pregnancy or portal hypertension.[5] There is one reported case of splenic artery rupture at the site of an atheromatous plaque without predisposing trauma or aneurysm.[6] An early theory attempting to explain spontaneous rupture of the splenic artery was that the vessel undergoes degenerative changes at an earlier age than do other arteries of the body, and rupture of a degenerated vessel leads to an interstitial hematoma which dissects to the surface and evacuates.[7] Orloff and Peskin[4] argue that if arterial degeneration were responsible, one would expect the condition to be common and its incidence to increase with age, neither of which is true. In addition, thickening and hyalinization of the vessels were not noted in the majority of spleens reviewed by him. Others have felt that a local vascular abnormality similar to the congenital "weak spots" in the arteries at the base of the brain is responsible for this condition.[8] That our patients also suffered cerebrovascular accident makes this theory attractive.

Greene and McCormick[9] reported a case of concurrent rupture of intracranial and intra-abdominal aneurysms. Both vessels were not inflamed and almost completely free of atherosclerosis. Microscopic examination revealed typical congenital or medial-defect-type aneurysms. Their review of the literature found only 10 published cases of intracranial and splenic artery aneurysms in the same patient.

Two infrequent but potentially lethal complications of SLE are subarachnoid and intracerebral hemorrhages. Cerebrovascular accidents occurred in 5 of 140 SLE patients described by Feinglass et al.,[10] one of which was fatal. There is no mention of their coagulation profiles. Evidence of neuropsychiatric disease was present in 37 percent of this series. They found that the most significant laboratory features correlating with neuropsychiatric manifestations were thrombocytopenia and evidence of vasculitis. Eighty-two percent of neuropsychiatric disease episodes occurred while patients were on no steroids, on low dose therapy, or while being tapered from high dose steroids.

In the absence of trauma, it is unclear exactly what factors were responsible for the ruptured blood vessels in this patient. Early signs of an LE flare were the patient's preadmission leukopenia and thrombophlebitis. In the hospital she had anemia, thrombocytopenia, hypocomplementemia, an elevated erythrocyte sedimentation rate, and a rising ANA titer. Abrupt withdrawal of azathioprine before admission may also have exacerbated her disease.[11] It is difficult to judge to what extent the heparin therapy contributed to the splenic artery rupture. The presence of a circulating LE anticoagulant as an isolated finding is not associated with a bleeding tendency; in fact, recent data suggest that patients with this abnormality may be at increased risk of thrombosis.[12] It is conceivable that thrombocytopenia (heparin or SLE induced), in addition to an LE anticoagulant, precipitated the first major hemorrhage. Postoperative disseminated intravascular coagulation was, at least in part, responsible for the prolongation of the partial prothrombin time. The fact that it corrected with plasma is inconsistent with the presence of a circulating LE anticoagulant. The subarachnoid hemorrhage is more difficult to explain, as the coagulation profile and blood pressure were normal for several days prior to this event.

Certainly an abnormal clotting profile will facilitate bleeding, but it is not sufficient alone to precipitate rupture of a medium-sized vessel.

Cerebrovascular accidents in patients with active lupus erythematosus are presumably secondary to a vasculitis. One could imagine a similar process in the splenic artery of a patient whose spleen showed periarterial fibrosis. However, vasculitis was not seen in the section of splenic artery submitted for biopsy, and at surgery, the peritoneal space was carefully inspected and no evidence of bleeding or vasculitis was seen.

It is possible that the splenic and cerebral arteries have been weakened by nine years of systemic lupus erythematosus and corticosteroid therapy. It has been noted that vascular disease as a cause of death in SLE has been increasing from 0 percent in the presteroid era to 45 percent in a recent series.[13,14] Damage to vascular endothelium in SLE has multiple causes other than prolonged administration of corticosteroids. Active vasculitis, hypertension, nephrotic syndrome, and hyperlipidemia, have all been implicated as contributing factors. Our patient exhibited none of these other factors. One might expect to find fibrinoid deposition in a vessel wall that is injured by LE. This was not seen in the splenic artery submitted for biopsy. Perhaps the disease was localized to the exact site of rupture. What factor or factors was responsible for rupture of either the splenic or intracranial arteries could not be determined from clinical or biopsy findings.

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Delayed Radiation Effects on Left Subclavian Artery

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This report describes a patient who five and one-half years after irradiation for left axillary node recurrence of breast cancer developed a localized irregularly stenotic lesion of the left subclavian artery. The authors consider this lesion to be secondary to delayed radiation effects.

In the patient with ischemic symptoms, the diagnosis of atherosclerosis is often made without an attempt to determine whether the histologic changes could be related to any specific arterial insult. Many theories as to the etiology and subsequent progression of atherosclerosis have been postulated.[1,2] Ionizing radiation has been shown to cause arterial damage with subsequent degenerative changes.[3-10]

Case report

A 55-year-old white female was admitted for evaluation of Raynaud's phenomenon of the left hand. One week prior to admission, she complained of the sudden onset of throbbing pain, coldness, numbness, and sensitivity to cold in her left hand.

On admission, the significant finding in her physical examination was blood pressure in the right arm of 138/66 and in the left arm of 90/76. She had a bruit in her left supraclavicular region and cyanosis of her left fingers; the cyanosis was especially marked in the index finger. Routine laboratory tests gave normal results.

Past medical history revealed a left modified radical mastectomy for cancer of the breast six years prior to her present admission. Six months later she developed left axillary adenopathy which by biopsy was proved to be a recurrence of breast carcinoma. She subsequently underwent treatment with cobalt 60 radiation; 5,000 rads were given to the internal mammary chain, supraclavicular and axillary nodes with an additional 1,000-rad boost to the left axilla.

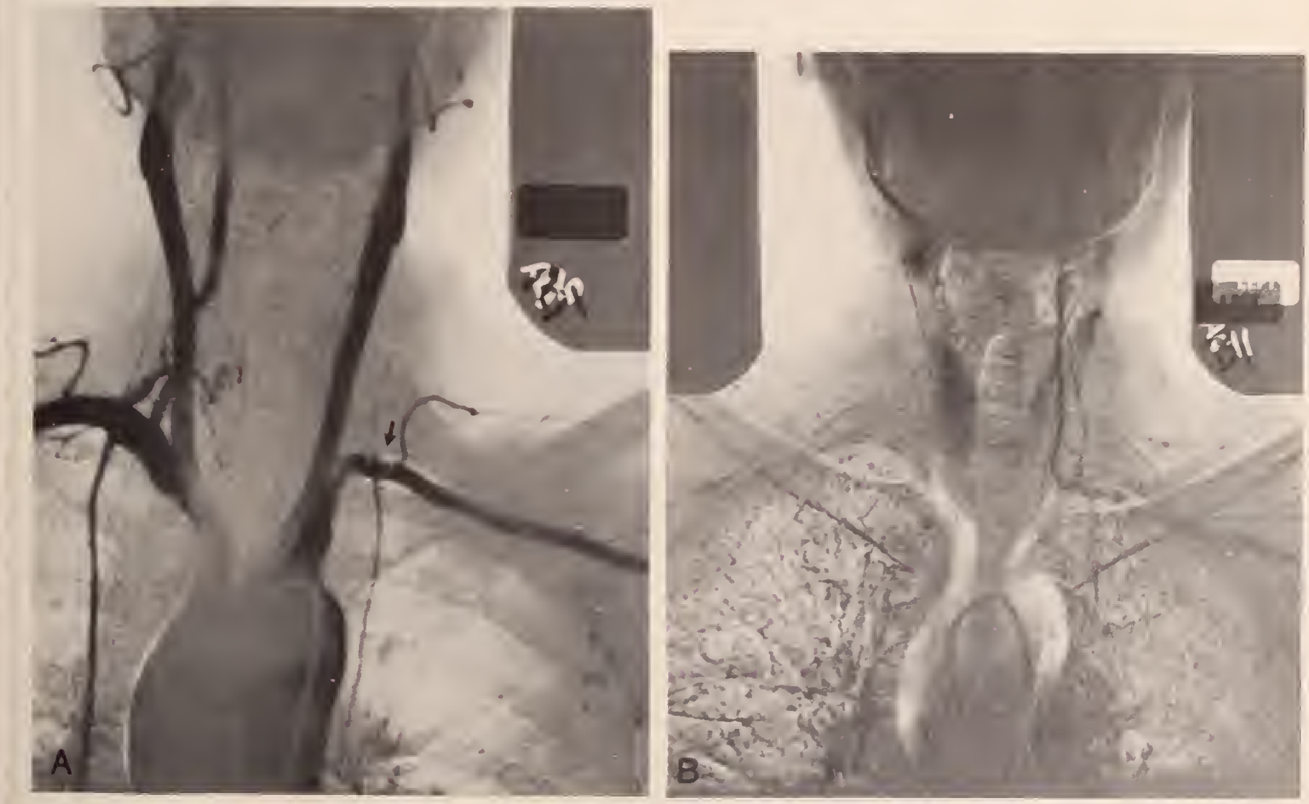

FIGURE 1. (A) Left subclavian artery is narrowed and irregular along a 2-cm. segment beginning approximately 2-cm. distal to its takeoff (arrow). Also shown is absence of left vertebral artery. (B) Delayed appearance of left vertebral artery due to retrograde filling (subclavian steal syndrome).

Hospital course. An aortic arch study revealed an irregularly narrowed segment of the proximal left subclavian artery with retrograde filling of the left vertebral artery (Fig. 1). There was poor distal runoff into the hand and the second digit had the poorest blood supply.

The patient underwent right-to-left axilla-axillary bypass graft surgery. Postoperatively she did well initially: blood pressure was equal in both arms and her complaints were almost eliminated. However, three days after surgery she began to complain of abdominal pain and later developed diffuse peritoneal signs. Abdominal exploration revealed massive small bowel necrosis secondary to superior mesenteric artery occlusion. She died in the immediate postoperative period. Postmortem examination did not reveal the exact source of the mesenteric occlusion.

Pathology. Of particular interest here is the sharply localized region of irregular stenosis of the left subclavian artery which was totally included within the radiation portal five and one-half years previously. Histologically, this region is characterized by variable and patchy hyperplastic changes as shown by fibrosis, mainly of the intima, with relatively little contribution by atheromatous conditions and no evidence of cancer cells or leukocytic inflammatory cell infiltration. "Bizarre" or "radiation" fibroblasts were also seen within the fibrotic arterial wall. These histologic findings, together with the radiation portal, the total dose to the region, and the time interval between the end of her radiation treatment and final hospital admission indicate a high probability that these changes were due to radiation effects.*

Comment

Atherosclerosis has been considered to be the end result of arterial injury from a variety of insults.[1,2] Ionizing radiation may be considered as such an insult.

Vascular structures after exposure to ionizing radiation have been reported to undergo a variety of changes which include altered state of permeability, accelerated atherosclerosis,[1-6] and fibrosis.[1,4,5,7,8] Radiation doses causing significant fibrotic changes have reported to range from 1,440 to 8,750 rads,[5] the mean occurring between 4,000 and 5,000 rads, and with a latency period ranging from 2 months to 39 years,[5] the mean being between 10 and 15 years. Due to this variability of vascular response to ionizing radiation, the clinician rarely considers radiation effects to be responsible for ischemic symptoms. In light of the case reported here and those reported previously,[1-8] we propose that radiation-induced ischemia be considered in any patient who has ischemic symptoms referrable to a specific region which previously received therapeutic ionizing radiation.

Summary

With the prevalence of radiation therapy in today's medical armamentarium, awareness by the clinician of the effects of ionizing radiation on normal tissues is essential. This report describes the delayed effects of radiation therapy on the left subclavian artery in a patient who five and one-half years previously had been given radiation therapy to the left axilla for recurrent breast carcinoma.

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When the Doctor Dies*

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IT SHOULD BE POINTED OUT THAT MANY OF THE FOLLOWING ITEMS ARE MATTERS WHICH TECHNICALLY WILL BE THE PROFESSIONAL RESPONSIBILITY OF THE EXECUTOR (IF THE DOCTOR DIED WITH A WILL) OR THE ADMINISTRATOR (IF THE DOCTOR DIED WITHOUT A WILL) AND THE ATTORNEY FOR THE DOCTOR'S ESTATE.

HOWEVER, THE INFORMATION CONTAINED HEREIN MAY PROVE TO BE HELPFUL NOT ONLY TO THE PERSON HAVING THIS RESPONSIBILITY BUT ALSO TO THE DOCTOR'S SURVIVOR.

WE RECOMMEND THAT THE SURVIVOR DISCUSS THE CONTENTS OF THIS PAMPHLET WITH THE EXECUTOR OR ADMINISTRATOR OF THE DOCTOR'S ESTATE AS SOON AS POSSIBLE.

YOU WILL PROBABLY NEED TO KNOW THESE ITEMS:

1. *SOCIAL SECURITY NUMBER* or Taxpayer's Identification number.
2. *ACCOUNTANT OR ESTATE PLANNER:* Name, address, phone number.
3. *ATTORNEY:* Name, address, phone number.
4. *EMPLOYEE(S):* Name(s), address(es), phone number(s), details of termination of services.
5. *INSURANCE AGENT (AND/OR ESTATE PLANNING MANAGER):* Name, address, phone number.
6. *STOCKBROKER:* Name, address, phone number.
7. *TRUST* (if established): Name of Trustee, address, phone number, name of bank's representative, phone, extension, if the trustee is a bank.
8. *WILL:* Location, location of any codicils.
9. *HOME:* Location of deed, mortgage papers, etc.
10. *OFFICE:* Location of deed or lease, mortgage papers, duration of lease or mortgage, provision for settling in event of death.
11. *OTHER REAL ESTATE:* Location(s) of deed(s) or mortgage papers(s).
12. *LIFE INSURANCE:* Location of policies.
13. *OTHER INSURANCE:* Location of policies.
14. *TEMPORARY COVERAGE OF THE PRACTICE:* Name, address and phone number of an associate.
15. *SECURITIES:* Location of policies.
16. *CURRENT UNPAID BILLS:* Location.
17. *OUTSTANDING OBLIGATIONS:* Notes, mortgages, pledges, charge accounts, credit checking accounts, etc. details.
18. *SAFETY DEPOSIT BOX(ES):* Location(s), number(s), location of keys.
19. *SAVINGS ACCOUNT(S):* Location(s), location(s) of passbook(s).
20. *CHECKING ACCOUNT(S):* Location(s), location(s) of checkbook(s).
21. *FINANCIAL RECORDS:* Location.
22. *CASH:* Location of receipts, unbanked cash, source of cash for immediate needs.
23. *TAX INFORMATION:* Location.
24. *ACCOUNTS RECEIVABLE:* Location, the Doctor's views on collecting current and delinquent bills.
25. *NOTES, LOANS, MORTGAGES*, etc., due from others: Location of items.
26. *NOTIFYING PATIENTS:* Method preferred by the doctor, location of appointment book.
27. *NOTIFICATION:* Hospital(s)—(Administrator), phone numbers; colleagues, phone numbers, Societies, etc., phone numbers.
28. *VETERANS ADMINISTRATION:* Branch of Service, date of discharge, service number, VA number(s), location of discharge papers.
29. *BLUE CROSS, ETC:* Policy numbers of Blue Cross, Blue Shield and other Health Insurance (see later discussion).
30. *NARCOTICS:* Location of drugs, tax stamp, narcotics ledger, narcotics order book.
31. *EQUIPMENT* (major): Purchase price, sales outlet.
32. *THE DOCTOR'S VIEWS* on disposition of property, securities, anticipated income, etc.
33. *BIRTH AND MARRIAGE RECORDS:* Location.
34. *CITIZENSHIP PAPERS* (if applicable): Location.

In addition to the foregoing, but subject to the rights and duties of the Executor or Administrator, you may become involved with the following:

- I. *PROBATE OF THE WILL:* Your attorney will do this.
- II. *DISPOSITION OF NARCOTICS, DRUG SAMPLES AND MEDICATIONS:*
  - A. Narcotics remaining:
    1. Contact the nearest Regional Office of the Drug Enforcement Administration for instructions on the disposal of controlled substances.
    2. Return unbroken packages to a wholesale drug firm.
  - B. The certificate of registration along with unused order forms must be returned to the nearest Regional Office of the Drug Enforcement Administration.
  - C. Narcotics Ledger must be retained for 2 years.
  - D. Disposition of drug samples and other

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* Copies of the pamphlet may be obtained by writing to the Office of the General Counsel of the Medical Society of the State of New York.

medications:

1. Do not throw away unless opened, unlabeled, or deteriorated.
2. Any purchased drugs may be returnable for refund if unopened. Perhaps the Doctor's supplier or pharmacist would be kind enough to help in this matter.

III. PATIENT RECORDS:

A. These are important and confidential records which should be carefully preserved.

B. The contents of such records should be disclosed to another physician only if the patient so requests. Such a request should be in writing and should be retained with the records. Normally, the records are confidential and diagnostic information in them should not be disclosed directly to the patient because of the risk that he might misinterpret them.

C. All patients' medical records should be kept for a minimum of six years since theoretically a patient may sue for breach of contract (6 year statute of limitations) as well as for malpractice. Records of patients who were infants, i.e. under 18 years, when treated prior to July 1, 1975, should be preserved until three years after the patient reaches eighteen. Records of infants treated after July 1, 1975, should be kept for a minimum of 10 years after the last date of treatment. Financial records should be kept for six years, in case any question of tax liability arises.

IV. *TELEPHONE:* If there is an answering service, this can be a very helpful way of notifying patients of the Doctor's death with possible suggestions regarding their continued care. It is suggested that this service be retained for at least a month.

V. *NOTIFYING PATIENTS:* Perhaps a simple sign on the office door "Call —— (office phone number" will relieve you of the burden of contact with most of the patients and the answering service can take care of the matter. If the physician's secretary is retained temporarily, she might perform this service by being present during usual office hours. She also could notify patients with future appointments during this time.

VI. *TAXES:* The accountant and/or attorney should take care of this in connection with the financial records.

VII. *STOPPING ADVERTISING MAIL:* It may take a year for knowledge of the Doctor's death to reach all the mailing lists; there is no central clearing office. You may perhaps choose to let it run out in this fashion, or you may write "Deceased return to sender" on each piece and mail it back. While the latter course might entail some effort initially, it will rapidly and effectively cut off the flow.

VIII. *INSURANCE AGENT AND/OR TRUSTEE:* A preliminary brief conference might be in order to settle the question of immediate funds, documents to be located, and arrangements for a later, detailed conference. Prompt notification of such people is important.

IX. *CONSIDERATION OF SALE OF PRACTICE:* If the practice is to be sold, with or without real estate, relatively rapid action is advised, for it will quickly lose value. It can be advertised in your *local county society bulletin*, the *New York State Journal of Medicine*, the *Journal of the American Medical Association*, etc. There are also agencies which specialize in such matters. Professional status of physicians who are prospective buyers can be verified with the Medical Society of the State of New York.

X. *REAL ESTATE:* Except for practice-connected real estate, a hasty decision on sale or retention is not advised. It is hoped that the Doctor has made known his views on this subject.

XI. *TEMPORARY COVERAGE OF PATIENTS:*

A. Some arrangement with a colleague should be made immediately as regards patients in the hospital.

B. While not required, it would be a courtesy to be able to suggest a colleague to other patients.

XII. *INSURANCE:* Retain copies of *all* insurance policies *permanently* since claims may be made at a much later date and evidence of insurance is needed.

A. *Malpractice Insurance:* A refund on unused premiums may be possible. Find the policy and consult the broker.

B. *Liability and other Insurances:* Certain policies issued with reference to the practice might have provisions for refund of unused premiums. Consult the issuing company or your insurance agent.

C. *Blue Cross and Blue Shield:* A widow of a physician who was a member, can in many instances, keep her Blue Cross and Blue Shield contracts with the county medical society group. The widow should contact the local county medical society for information.

XIII. *VETERANS ADMINISTRATION:* If the Doctor was a Veteran, notify the Veterans Administration with the indicated information and apply for deserved benefits.

Obtain Veterans Administration Fact Sheet "IS I" from the Veterans Administration. It contains a good summary.

In this connection, save the Doctor's discharge papers permanently. It is possible that Pensions or other forms of remuneration may be provided in the future.

XIV. *SOCIAL SECURITY:* Physicians have been covered under the Social Security Program since January 1, 1966. This means there are certain benefits available to the widow, children, and under certain conditions dependent parents.

These benefits need be applied for at a Social Security District Office. You will need your marriage certificate and birth certificates for any eligible children to receive benefits. You will also need the physician's Social Security or Employer Identification Number.

XV. *AUTOMOBILE(S):* Title, if in Doctor's name, can be transferred with assistance of automobile club, if a member. Also be sure insurance coverage is retained.

XVI. *EQUIPMENT:* It is best disposed of as part of the practice, if possible. Otherwise, it might be possible to obtain an estimate of value from one of the reputable equipment vendors and then sold either privately, through an advertisement in your local county medical society bulletin, or to a dealer on used equipment. Equipment dealers are listed in the Yellow Page Directory under Physicians and Surgeons Supplies and Equipment. The sale value of used equipment is low.

XVII. *CURRENT BILLS:* These must be paid, but not until the court has approved the Executor or appointed the Administrator of the Doctor's estate.

XVIII. *MAGAZINE SUBSCRIPTIONS:* Those purchased for office use might be checked for possible stoppage and subscription refund if you do not wish to continue them.

XIX. *DUES:* There is ordinarily no refund on Medical Society dues unless hardship exists.

XX. *SECURITIES:* It is worth noting that Securities can be used as collateral for loans to meet financial needs. This may be preferable to selling the securities.

Acknowledgment. A grateful acknowledgment is made to the Academy of Medicine of Cleveland, Ohio, for its pamphlet "When the Doctor Dies," on which the New York version is partially based.

Medical Society of the State of New York
420 Lakeville Road
Lake Success, New York 11042

County medical society rescues poison data center

The LACMA (Los Angeles County Medical Society) has rescued the city's Poison Information Center that was about to be shut down because of financial problems.

With time running out, David B. Horner, M.D., LACMA president, took action to assure the perpetuation of the 23-year-old center, which is believed to be the world's busiest, says a report in an issue of American Medical News, the American Medical Association's newspaper for physicians.

The Los Angeles poison center logs more than 100 calls a day from all over the U.S., from foreign countries, and from ships at sea, the article reports.

LACMA's executive committee, board of trustees, and council supported Dr. Horner's decision. Each quickly approved a contribution of $60,000 to fund the center for the remainder of the fiscal year.

Days later, LACMA incorporated a nonprofit foundation for community service to support the center, which has a $140,000 annual budget.

"The poison center is one of the most important resources that physicians have in this community, and I knew that our members could not stand by and watch its demise," said Dr. Horner. "It has provided an invaluable service since its inception in 1957, and its closing would have had a devastating effect on both physicians and patients alike," he said.

"One of the primary goals of our profession is to save lives, and that is what the Poison Information Center is all about," the Inglewood, California, orthopedic surgeon said.

"I'm certain that this will prove to be a most successful association—one that will be beneficial both to the medical profession and to our patients."

The center was rescued from oblivion as financially pressed Children's Hospital of Los Angeles was about to terminate the service as too costly.

According to a hospital spokesperson, Children's was no longer able to provide $100,000 a year to finance the center, which was also supported in part by a memorial fund.

The information service will remain at Children's but LACMA will make up the deficit with contributions from its members, income from fund-raising events, and grants from philanthropic foundations.

Although staffed by only six individuals, Los Angeles' poison center takes calls 24 hours a day, seven days a week, for a total that exceeds 36,000 a year. Eighty percent of the calls come from physicians in emergency situations.

Corrine Ray, director, told American Medical News that the center functions like a library by bringing the physician up-to-date about the ingredients and toxicity of a substance, as well as the symptoms of the poison and its management.

Despite its small staff, Los Angeles' poison center is believed to respond to more calls than any other poison center in the world, Mrs. Ray said.

Most of the telephone calls originate in Los Angeles county and nearby San Bernardino and Ventura counties.

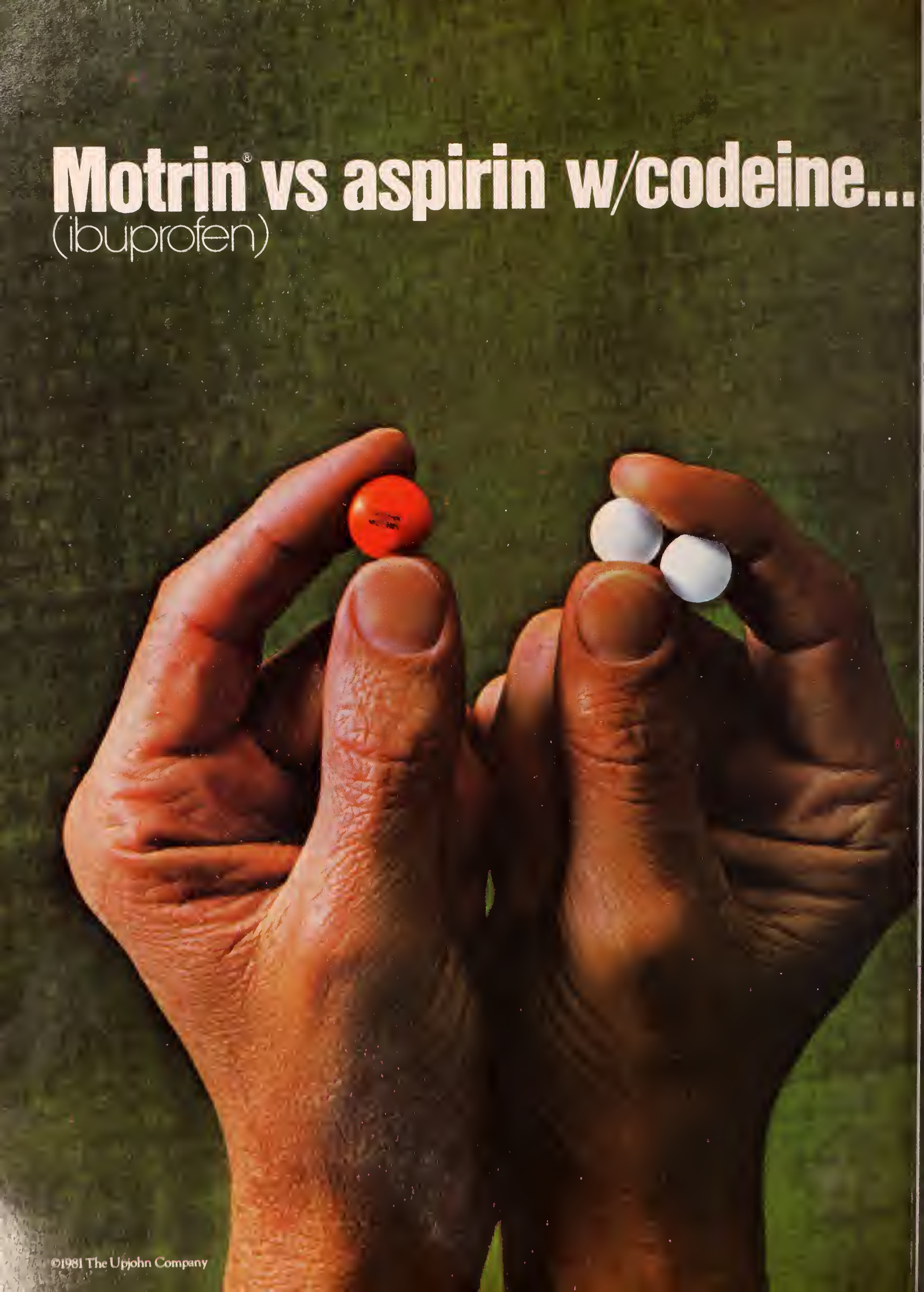
However, former Los Angeles physicians now practicing elsewhere in the United States, Latin America, or the Far East, remember the speed and accuracy of LACMA's poison center, and call long distance when emergencies arise, Mrs. Ray said.

The poison center has also been instrumental in making the environment safer for infants and children with an appetite for household poisons.

Until 1966, for example, baby aspirin was sold in bottles of 100. With the center's urging, the product was changed to a 36-tablet package that did not contain enough aspirin to cause harm if the entire contents were consumed.

The center was also partially responsible for getting a rat bait called Vacor removed from the market because its ingestion produced permanent diabetes, according to LACMA sources.

The article is by Senior Editor Richard Lewis.



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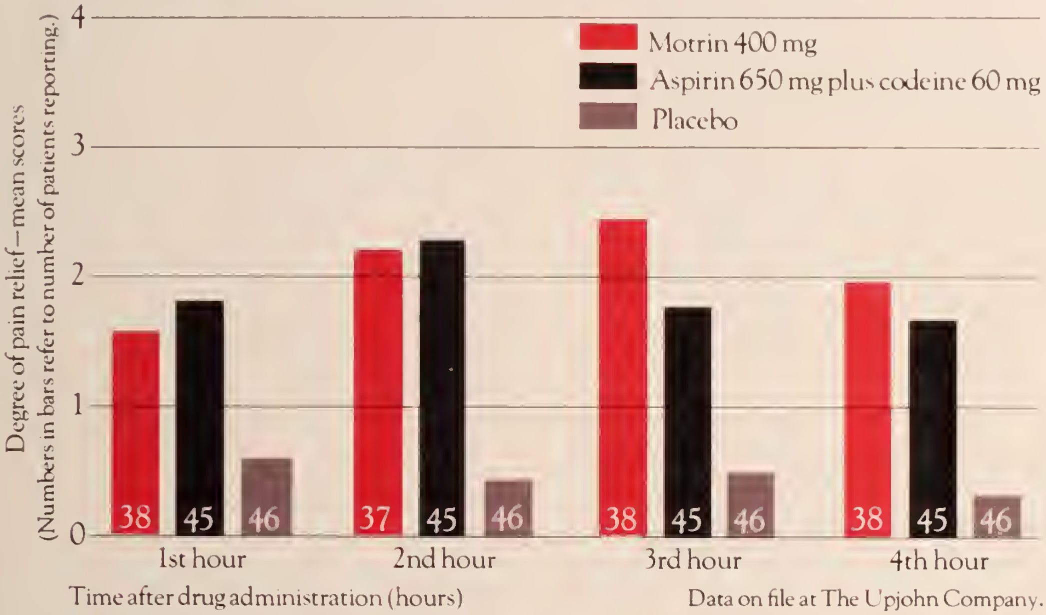
compare the analgesic effect

A *Motrin* 400 mg dose relieved postsurgical dental pain as effectively as a combination of 650 mg aspirin and 60 mg codeine (two aspirin-with-codeine No. 3 tablets) in a study of 129 patients. In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the *Motrin* and aspirin-with-codeine groups… with *Motrin* being significantly more effective ($p = 0.03$) at the three-hour interval. Active treatment was significantly more effective ($p < 0.0001$) than placebo at all time intervals.

Comparison of pain relief
Motrin vs aspirin-codeine combination

4 = Excellent relief 3 = Good relief 2 = Fair relief 1 = Poor relief 0 = No relief



Data on file at The Upjohn Company.

One tablet q4-6h prn
For relief of mild to moderate pain:

Motrin® 400 mg TABLETS
ibuprofen, Upjohn

• Not a narcotic • Not addictive • Not habit forming • Nonscheduled • Acts peripherally • Relieves pain rapidly • Relieves inflammation • Indicated in acute and chronic pain • Well tolerated (The most common side effect with *Motrin* is mild gastrointestinal disturbance.)

Please turn the page for a brief summary of prescribing information.

Upjohn

Motrin® (ibuprofen)
now proved an effective analgesic for mild to moderate pain

Motrin® **Tablets** (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* Used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Do not exceed 2400 mg per day.

Caution: Federal law prohibits dispensing without prescription.

For additional product information, see your Upjohn representative or consult the package insert.

Upjohn
THE UPJOHN COMPANY
Kalamazoo, Michigan 49001 USA

MED B-4-S

(*continued from page 934*)

been marketed since 1970 for use in rare diseases and another 39 have been made available for research on patients.

As examples, he cited Demser (metyrosine) which treats conditions caused by pheochromocytoma, a rare tumor of the adrenal gland; and Vira-A (vidarabine) which treats rare herpes infections of the eye and brain.

Engman also urged administrative reforms by the Food and Drug Administration to make new drug approval less difficult and costly. The average cost of taking a promising new drug from discovery to market approval today exceeds $70 million, he said.

* * *

A sharp decline in the installation of CT (computed tomography) scanners in the past two years may indicate the market is reaching its limits, according to a study by the Congressional OTA (Office of Technology Assessment).

Although critics have blamed government interference for inhibiting scanners, the OTA study said "the real boon to diffusion and use of the CT scanner has been in the government's almost open-ended commitment to pay for CT scans."

The OTA said it is concerned about regulatory approaches being considered to control CT scanners and other technologies in the absence of definitive scientific information on their efficacy and safety that would permit wise decisions by federal officials or insurance companies.

The U.S. has the greatest number of CT scanners per population, with 1,471 last year.

Prepared by the Washington, D.C., office of the American Medical Association.

Pet dogs exonerated as multiple sclerosis carrier

The family pet puppy is exonerated as a possible carrier of MS (multiple sclerosis) in a scientific study appearing in the January issue of an American Medical Association Journal.

It is measles, not canine distemper, that is involved, says Dr. David L. Madden of the National Institutes of Health, Bethesda, Md.

For some years reports have surfaced in medical journals indicating that families owning small dogs had a higher incidence of MS, a degenerative crippling disease. This has caused a stir among medical and animal medicine circles.

Dr. Madden found that antibody levels in the blood to measles and canine distemper viruses are very closely related, leading some researchers to conclude that the animal virus was involved in MS. He conducted blood tests on MS patients in the Milwaukee area.

Measles and canine distemper are very closely related biologically, as is another animal disease, rinderpest, he says. From the Milwaukee studies, Dr. Madden concludes that the canine distemper antibodies observed in MS patients are closely related to measles antibody, and that canine virus "is not implicated as a causative agent in MS."

The report appears in the January Archives of Neurology.

Medical Judgment
vs.
Court Imposed Rules

In treatment of terminally ill patients

JOSEPH G. ZIMRING, M.D., F.A.A.F.P.*
Long Beach, New York

"Let me be intent upon one thing, O Father of Mercy, to be always merciful to thy suffering children"
Maimonides Daily Prayer of a Physician

Recent court decisions involving cases relating to the treatment of terminal patients has resulted in making medicine and the law contenders in some of the most important problems involving certain aspects of life. With the problems created by the courts intervening more and more in the physician-patient relationship, the medical profession has shown an increasing interest and concern in death and dying. This interest and concern has also resulted from technical advances in medicine, which now permit maintenance and support of cardiac and respiratory function in man long after massive or even total destruction of the brain occurs. Certain specific issues resulting from the use of these extraordinary measures include the following: (1) medical treatment of the terminal patient including the use of passive euthanasia and the use of "No Code"; (2) the definition of death; (3) "pulling the plug" or disconnecting the respirator, and (4) the court's attempt to impose rules on the medical profession in regards to the care of the terminal patient.

Medical treatment

Traditionally, the medical profession has been dedicated to preserving and prolonging human life. With the advent of modern advances in scientific and technological fields, the physician is now faced with ethical, moral, and legal questions in the treatment of terminal patients. The attending physician should have latitude to exercise his own professional judgment in making his decision on the question of what treatment he should follow in the care of terminally-ill patients. In making this decision, the physician must have the consent of the patient and/or the immediate family; in the case of an incompetent patient, the consent of the immediate family and/or the guardian should be obtained and not the consent of the courts.

It is my firm belief that a dying person should not be subjected to unwarranted and unwanted life support measures; he should be treated in the most humane way possible without the use of active euthanasia. At times, when possible, terminal patients should be transferred home to die because a hospital is a lonely, impersonal place during the death process, while at home, the patient will benefit from familiar faces, familiar surroundings and the fact that he is not being abandoned.

The Massachusetts Supreme Judicial Court in the case of *Earle Spring*, a 79-year-old incompetent, who was receiving dialysis therapy in spite of his family's attempt to stop it, reaffirmed its assertion that the courts should decide whether life-prolonging procedures can be terminated on certain cases.[1] This decision was passed by the court, in spite of the fact that the patient died before release of the decision and in spite of the fact, as medically stated, that treatment was merely prolonging the patient's life in a negative state. This case confirms the fact that it should be the attending physician who, in exercising his clinical judgment, should make the decision on the question of what treatment the terminally-ill patient should receive.

Use of "no code"

With the increase in the number of cases that are being submitted to the courts for their decision in deciding what type of therapy should be used, one can predict an increase in the use of "No Code" orders for terminal patients in the event of cardiac or respiratory arrest. Attempts to apply resuscitation in these cases, if successful, will do nothing to cure or relieve the illnesses which will have brought the patient to the threshold of death. When a decision has been made to use a "No Code" order, the physician should clearly mark it on the chart. In addition, he should document on the patient's chart, his opinion that the patient meets the medical criteria for a "No Code" order and his discussion with the immediate family or guardian, in case of an incompetent patient.[2]

In support of the use of a "No Code" order by a physician *without* the approval of the courts was the case entitled "*In the Matter of Shirley Dinnerstein*" heard in the Massachusetts Appeals Court in 1978. The court stated "that the decision to enter a "No Code" order presents a question peculiarly within the competence of the medical profession of what measures are appropriate to ease the imminent passing of an irreversibly, terminally-ill patient in light of the patient's history and condition and the wishes of her family." This important decision is the first in the nation to uphold the validity of "No Code" orders.[3]

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* Chairman, Committee on Ethics of the Medical Society of the State of New York; Medical Director, Komanoff Pavillon, Long Beach Memorial Hospital, Director Emeritus, Department of Family Practice, Long Beach Memorial Hospital

Definition of death

A statutory definition of death can be used in cases where patients are proved to be dead due to irreversible loss of brain function and whose heart beat and respiration are mechanically sustained by a respirator. I believe that in such cases, the attending physician should have the right to "pull the plug" without any court interference. At least 25 states have statutory definition of death and thereby avoid the controversial subject of who shall have the right to "pull the plug." However, several states, including New York, New Jersey and Massachusetts, do not have a statutory definition of death and as a result "pulling the plug" is quite a controversial subject in these states.

The Medical Society of the State of New York recognizes the concept of brain death as defined by the criteria formulated in 1968 by the Harvard Medical School. The criteria consist of:

1. Unreceptivity and unresponsitivity;
2. No movements or spontaneous breathing;
3. No reflexes;
4. Flat electroencephalogram;
5. The above tests to be repeated 24 hours later;
6. Exclusion of hypothermia and central nervous system depressants.

Language for a new model state legislation on the determination of death was approved by the AMA Board of Trustees in October, 1980. This model legislation had been drafted earlier by representatives of the American Medical Association (AMA), the American Bar Association and the National Conference of Commissioners on Uniform State Laws and it is being offered to state legislatures for enactment.[4]

Passage of such a bill by a state legislature would prevent needless cruelty and hardship and diminish the threat of civil or criminal persecution which presently inhibits physicians in issuing a declaration of death based solely on irreversible cessation of brain function. Furthermore, the bill would help alleviate the shortage of vital organs suitable for transplant by eliminating the present medical/legal discrepancy in the determination of death. The MSSNY (Medical Society of the State of New York) has approved and urges the immediate enactment by the State of New York of a bill that provides a statutory definition of death.[5]

Court imposed rules

The Supreme Court, Appellate Division, Second Department of the State of New York, in rendering its decision "*In the Matter of Brother Joseph Charles Fox*" stated that the enactment of such a bill containing a definition of death would be the preferable alternative to bringing this type of case to the courts.

On October 2, 1979, Brother Fox underwent surgery for repair of a hernia; during which he suffered cardiac arrest and after heroic measures were used to restore his cardiac and respiratory functions, he was placed on a respirator. Father Eichner, after reviewing the case with the medical staff, asked the hospital to remove the respirator. The hospital refused and Father Eichner applied to the court for permission to have the respirator removed.

Legal counsel of a hospital is usually not interested in the medical or moral reasons for terminating life support systems. Four factors are usually considered by legal counsel in advising not to terminate life support systems. These factors are: (1) fear of civil liability; (2) fear of disciplining action by regulatory agencies; (3) fear of adverse publicity; and (4) fear of criminal liability. However, legal counsel does not take into consideration useless efforts of keeping a "dead body" alive with a mechanical system or the mental suffering on part of the patient's family or the high increase in the costs of this type of useless treatment.

For the Fox case the Special Term Court ordered the "plug to be pulled"; however, the county district attorney appealed this decision and the case went to the Appelate Court, Second Department. While waiting for a decision, Brother Fox expired on January 24, 1980. The Appellate Court in its decision first stated "that Brother Fox's death neither renders the court moot nor ousts this court of jurisdiction to decide it." This decision came on March 27, 1980. The court pointed out "that Constitutional right to privacy encompasses freedom of a terminally-ill but competent individual to choose for himself whether to decline medical treatment where he reasonably believes that such treatment will only prolong his suffering needlessly." The court also pointed out "that any state scheme which irrationally denies to a terminally-ill incompetent that which it grants to the terminally-ill competent patient is subject to Constitutional attack."

The court in its conclusion stated that "specifically there was evidence sufficient to permit Father Eichner to exercise Brother Fox's right to have the life-support respirator withdrawn." The court also stated that in the *Quinlan* court, the decision to terminate was, in the final analysis, a purely medical one; the injection of the judicial process would constitute a gratuitous encroachment upon the medical profession's field of competence." The court further stated that "the *Saikewicz* case provided that final decision making must reside with the judicial process and the judicial process alone."

The court finally stated that "the following procedure shall be applicable to the proposed withdrawal of extraordinary measures from the terminally-ill and comatose patient." The procedure was to consist of the following guidelines:

1. the physicians attending the patient must certify that the patient is in an irreversible permanent or chronic vegetative coma and that the prospects of his regaining brain function are extremely remote;
2. a committee of three physicians of the hospital must either confirm or reject the diagnosis;
3. upon confirmation, one must seek appointment as the committee for the incompetent and for permission to have life-sustaining measures withdrawn;
4. the Attorney General and the appropriate District Attorney shall be given notice of the proceeding and, if they deem it necessary, shall be afforded opportunity to have examinations by physicians of their own choosing;
5. a guardian ad litem shall then be appointed;
6. the case is then ruled on by the court.

Since these guidelines are applicable only to cases in the Second Department, the Nassau County District Attorney appealed this decision because he wants these guidelines to apply statewide.[6]

Discussion

In August 1980,* the Medical Society of the State of New York received a letter from Father John Paris, Professor of Ethics of the College of the Holy Cross, suggesting that the MSSNY file a brief as *amicus curiae* involving the appeal to the Court of Appeals of the Brother Fox case. This letter was referred to the Chairman of the Committee on Ethics of MSSNY.* The Chairman then submitted a letter to the Council of the MSSNY asking them to approve the appointment of a counsel to submit a brief as *amicus curiae* on the Brother Fox case to protect the medical profession. The following reasons were given for the approval of the above request:

1. The medical profession must defend their traditional responsibilities in the area of care of a terminal patient.
2. The guidelines as promulgated by the Appellate Court, Second Department, are ill-conceived, unrealistic, totally impractical and dangerous.
   - (a) Besides increased hospital expense, the family is forced to incur the expense of litigation with its emotional drain and adverse publicity. (Pope Pius XII in 1957 stated: ". . .a burden for the family that one in all conscience cannot impose upon them.")
   - (b) A waste of time–3 to 6 months–before decision may be reached.
3. The court claims that the medical profession faces ethical and legal problems which would be solved by application of the guidelines. Such claims are misguided at best:
   - (a) Responsibility and trust given to the physician by the family is discharged faithfully to the best of his ability and in accordance with accepted professional standards of ethics and technical competence.
   - (b) Physicians neither desire nor expect immunity for their medical decisions.
4. The medical profession must convince the courts that "pulling the plug" is merely a recognition that a human being no longer exists and that such termination of artificial support is not homicide but death that is inevitable and if done in a timely fashion, death can come with dignity as well as peacefully and without pain or discomfort.
5. Right of privacy is involved. The treatment of a patient is a personal and confidential matter between physician and patient and/or immediate family or guardian and not a matter for public display or intrusion by the courts.
6. The court states that its guidelines would ultimately affirm the dignity and worth of human life. These guidelines would be doing just the opposite–by keeping a "body"–which has no life–alive with a machine. The court is thus lowering the dignity and worth of the human life and is also assuming the role of "Playing God."
7. A family would not lightly authorize the termination of life extending medical treatment for a beloved member of the family. They are more qualified to make such decisions than a committee of strangers or a judge.
8. According to its position papers, the MSSNY:
   - (a) Opposes any legislation which would designate individuals other than physicians to pronounce death.
   - (b) If the use of artificial means of support precludes a determination that these functions (spontaneous respiratory and circulatory) have ceased, a person shall be dead, if in the announced opinion of a duly licensed physician, based on prevailing standards of medical practice, such person has experienced a total and irreversible cessation of brain function.

The Council of MSSNY approved the request of Father Paris and a brief as *amicus curiae* in the case of Brother Fox was submitted to the Court of Appeals during the second week of December, 1980.†

The guidelines as dictated by the Appellate Court are an intrusion on the practice of medicine and will have a bad influence on the medical profession in its treatment of the terminal patient. The use of "No Code" will be definitely increased resulting in the reduction of the use of respirators with the resultant loss of many organs necessary for the salvation of certain patients awaiting organ transplants.

Nothing justifies the taking of a decision making process in the treatment of a terminally-ill or comatose patient to the courts. The courts should recognize the fact that these decisions should be made by the attending physician, who has the following necessary resources available to him:

1. his own familiarity with the case;

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* Letter to Henry Fineberg, M.D., Executive Vice-President MSSNY from Joseph Zimring, M.D., Chairman of Ethics Committee, MSSNY dated August 18, 1980.

† On March 31, 1981, the Court of Appeals reversed the decision of the Appellate Court 2nd Division and removed the guidelines.

2. his education, training and experience;
3. the availability of consultive opinions; and,
4. the advice and input by the patient and/or the immediate family or guardian.

"It hath been often said that it is not death, but dying which is terrible."—**Henry Fielding**

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Low chloride infant formulas linked to health hazards

Babies who were fed low chloride infant formulas may have been exposed to serious growth and health problems.

Infant formulas sold under the brand names of Neo-Mull-Soy and CHO-free were found to be low in chloride between the summer of 1978 and a year later when they were withdrawn from the market.

These formulas are generally given to infants with food allergies. Infants who have received Neo-Mull-Soy or CHO-free and had no acute ill effects are unlikely to have long-term problems attributable to the use of these formulas.

Cases of hypochloremic metabolic alkalosis were reported in some infants who had been fed these formulas without other foods. These infants showed lethargy, failure to thrive, loss of appetite, and constipation. Recovery and catch-up growth began when adequate chloride was added to the infants' diets or when infants were changed to other formulas.

The American Academy of Pediatrics advises parents with children who have displayed these symptoms or who received these formulas between 1978–79 that they may wish to discuss this with their pediatrician.

The National Institutes of Health is studying a representative group of infants who had documented evidence of metabolic alkalosis while receiving the formulas.

Physicians or parents with any information about health problems in infants who have been fed these chloride-deficient formulas should contact Jose F. Cordero, M.D., Birth Defects Branch, Chronic Diseases Division, Bureau of Epidemiology, Centers for Disease Control, Atlanta, Georgia 30333 (404/452-4035).

The American Academy of Pediatrics is an organization of 22,000 certified pediatricians in North and South America dedicated to the health, safety and well-being of infants, children, and adolescents.

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Neurobiology of Aging

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Although biologic aging may involve changes in the organs of the entire body, the brain, as the master organ in adaptation to the environment, and in the integration of all bodily functioning, plays a critical role in the rate of aging. This is the basis of the poetic statement that "one dies at the top, like a tree."

Since the literature on the neurobiology of aging is replete with various theoretic and philosophic treatments of the subject, and there are disturbing inconsistencies and discrepancies, raising doubt about some of the methodological approaches, one must be very cautious in interpreting much of the data.

The major problem that confronts the student of the neurobiology of aging is whether or not the morphologic and biochemical changes found in the tissues of aged individuals are pathologic, and whether conditions such as Alzheimer's disease and senile dementia, which are major killers, represent an accentuation of normal aging of the nervous system, or are distinct disease entities. According to many, "normal aging" is simply that stage of pathologic condition which is without functional impairment or without clinical expression.

From a clinical standpoint, there is considerable confusion in the literature as to whether or not there is a steady decline in cognition, motor performance, the capacity to adapt to an ever changing environment, and in the survival of stress that comes with age. In this regard, it was initially concluded that there was a peaking of intelligence during the third decade of life, with progressive decline in most human abilities after the mid-twenties; recent data from a number of studies have questioned these conclusions. According to Jarvik, et al.[1–3] if illness does not supervene, intellectual and cognitive functioning remain intact well into the ninth decade, and "senility is a term best relegated to the lexicon of medical historians, rather than to clinical use."

Since space does not permit an in-depth discussion of all aspects of the neurobiology of aging, a brief overview of the morphologic and neurochemical aspects of normal aging will be given, with somewhat greater emphasis on the neurochemical aspects.

Morphologic changes

Since there can be no function without structure, it is necessary to begin with a discussion of the morphologic changes in the brain during aging. Gross changes in the brains of aged persons were described in the literature almost 150 years ago by Esquirol, and include reduction of brain weight and volume, marked atrophy of the gyri and widening of the sulci,[4] especially over the frontal lobes, thickened, opaque meninges variably adherent to the underlying cortex, fibrotic and calcified arachnoid villi,[5] and a frequently dilated ventricular system, with perceptibly shrunken cortical grey and white matter.[4] Most of these gross changes can be well visualized in the CAT (computerized axial tomography) scan (scintiscan).

Cell losses

From a microscopic standpoint, study of the normal aged brain has shown neuronal loss in various portions of cerebral and cerebellar cortices, the anterior thalamus, hippocampus, and locus ceruleus[6–8]; the greatest loss, according to Brody,[8] is in the cerebral cortex, that is, in the superior temporal and precentral gyri, area striata, and hippocampus. Glial-cell increases with age have been described.[9] Whether this glial cell proliferation represents a compensatory reaction to degeneration or whether it is caused by other mechanisms remains to be determined. Studies[7,10,11] indicate that loss of neurons in brains of mentally healthy elderly people is significantly less than in cases of dementia.

In addition to nerve-cell loss, significant ultrastructural alterations in nerve and glial cells occur in the aging brain. Within the cell body of the neuron occur neurofibrillary degeneration, granulovacuolar

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degeneration, lipofuscin accumulation, and the presence of Lewy and Hirano bodies. Neurofibrillary tangles are abnormally large numbers of intracytoplasmic tubules running as compact parallel bundles, which eventually push the cell nucleus to one side.[12] They are believed to be the product of abnormal protein metabolism.[13] It should be noted that although neurofibrillary degeneration is one of the most common histologic features of Alzheimer's disease, senile dementia, and the normal aged brain, it may also be found in other pathologic conditions such as postencephalitic parkinsonism, and the amyotrophic lateral sclerosis-Parkinson-dementia complex indigenous to the Chamorro population on Guam in the Mariana Islands. This would indicate that abnormal tubule formation can be induced by a variety of pathologic agents.

The intracellular accumulation of lipofuscin in cell bodies of neurons and glia has been extensively studied, and is in proportion to age.[14,15] Although lipofuscin, which may represent an accumulation of oxidized nerve-cell membranes, is a normal constituent of neurons in the brain of aged subjects, its presence in large amounts in young or even middle-aged subjects may be considered abnormal. It is not known whether or not the presence of lipofuscin has any actual effect on cell function. In the case of granulovacuolar degeneration, silver staining shows granules surrounded by spaces or vacuoles.[16] Lewy bodies, which are hyaline-like masses of cytoplasmic protein, and Hirano bodies, which are eosinophilic, rod-like structures, have been observed in the nervous tissue of aged animals and man.[17,18]

It is also of considerable importance to examine the status of the neuropil or cell processes, such as dendrites, axons, and axon terminals, since the texture and character of the neuropil in which neurons are embedded provide the matrix in which information is received, processed, and acted on. The major changes in the neuropil consist of the formation of neuritic or senile plaques, amyloid deposits, loss of dendritic spines, shrinkage of dendritic arbor, and decrease of the extracellular space. The classical neuritic or senile plaque is composed of a central core of amyloid surrounded by degenerative neuronal processes and reactive cells.[18–20] In the body there are two types of amyloid—amyloid A and amyloid B. Amyloid A is a protein of unknown origin; amyloid B, believed to be associated with aging, consists of a complex of light chains of immunoglobulins.[21,22] This fact is one of the major reasons for the theory that the immune system may be involved in normal aging and in senile dementia. According to Walford,[23] due to impairment of surveillance and a decline in the protective mechanisms, the aging body demonstrates increased susceptibility to infections. From the work of Nandy,[24,25] it has been shown that brain-specific antibodies, which are gamma globulins, are present in the sera of old mice but not in the young, and that a break in the blood-brain barrier results in antigen-antibody reactions and morphologic damage to the brain tissue. It has also been observed that sera of senile dementia cases have significantly higher levels of such antibodies than do age-matched control subjects.[26]

In regard to loss of dendritic spines and shrinkage of the dendritic arbor, dendritic tissue is not only of great importance because of its demonstrated plasticity and reactivity to environmental challenges, but because dendrites constitute 70 to 90 percent of the total membrane area of the neuron. Using the Golgi technique, it has been found that the earliest changes include loss of dendritic spines,[8,27,28] with a decrease in dendritic branching.[29] Swellings and varicosities distort the outline of the shafts. As the changes become more extensive, there is progressive swelling and lumpiness of the cell body, particularly of the cortical pyramidal cell bodies in the third cortical layer of the prefrontal and superior temporal cortex, with eventual disappearance of the parent cell body, followed by replacement gliosis. In the motor strip, the giant pyramidal cells, such as Betz cells, are particularly vulnerable, perhaps accounting for some of the motor disturbances seen in old people. It is important to note that the number of neuritic plaques, neurofibrillary degeneration, and other changes are not necessarily correlated with behavior and cognitive function, and that there may be postmortem evidence of these lesions with relatively intact psychologic status. The extent to which extracerebral factors, such as cardiac malfunction and pulmonary pathologic causes, contribute to these findings in the aged brain is not known.

Another measure of aging of the brain that is not unique for neural tissues is the change in relative proportions of intra- and extracellular compartments,[30] with a decrease in the relative volume of the extracellular space in different parts of the orain. This change is thought to result in a decrease in the capacity of the extracellular channels to support neuronal metabolism.

Neurochemistry of aging

In recent years, biologic research on aging has received its major impetus from the growth of molecular biology and neurochemistry. In studying the neurochemistry of aging, however, one is confronted with many pitfalls. Unlike organs such as the kidney or lung, where there is a repetition of structural-functional units, the mature brain is a collection of different cell groups with varying function, metabolism, and susceptibility, each of which may react to age in different ways and at different rates. A serious inadequacy of almost all studies of the biochemistry of normal or aged human brain is that specimens that are examined for biochemical data are not assessed for possible histologic abnormality. One can also question whether or not the biochemical data obtained from animal models, particularly small laboratory animals with short life spans used in many studies on aging, are relevant since these animals do

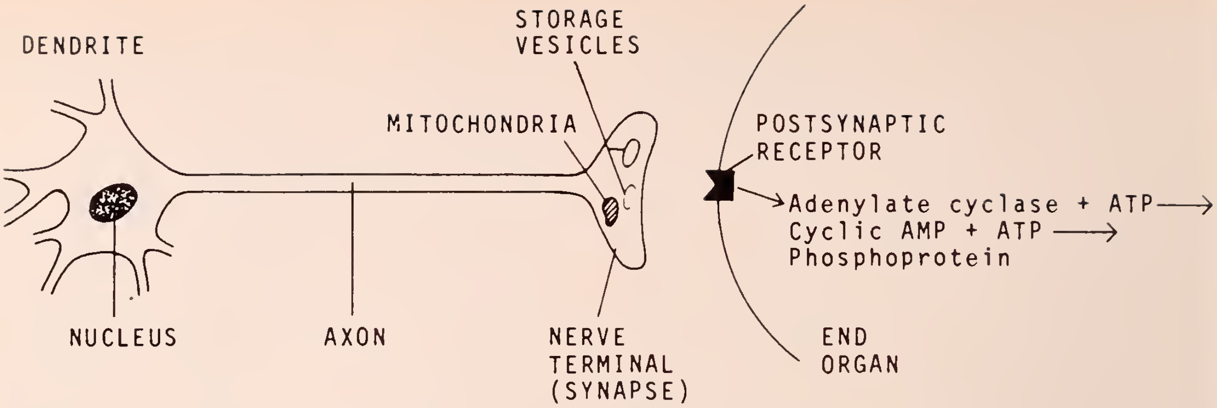


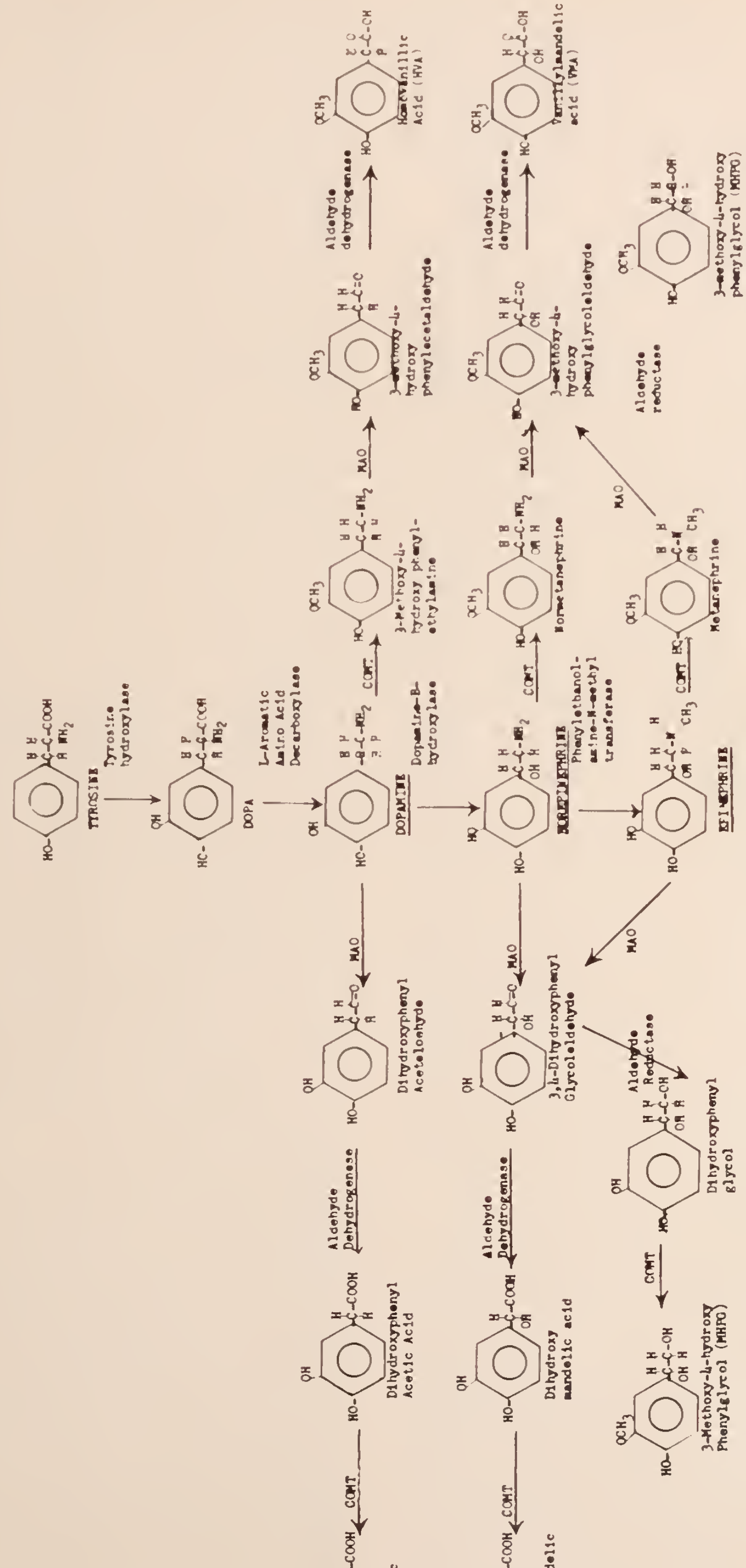
FIGURE 1. Schematic drawing of neuron.

not possess the neocortical development seen in man and apes. The rapid postmortem changes in the human brain have also been a barrier to neurochemical studies. Moreover, persons dying after prolonged coma show extremely low levels of several of the enzymes. And, last, the problem of devising proper controls is almost insurmountable.

Not only is our knowledge of the biochemical changes in the aging brain limited, but our understanding of the functional implications of these alterations is minimal. It is generally agreed that a number of chemical substances, many of which are biogenic amines, mediate brain function, such as wakefulness, sleep, thermoregulation, mood, learning, memory, and behavior. These neurotransmitters are, respectively: acetylcholine, the catecholamines, dopamine and norepinephrine, serotonin, gamma amino butyric acid, glycine, substance P, glutamic acid, histamine, the prostaglandins, taurine, and the endorphins and encephalins. In the geriatric brain one might expect alterations in the synthesis, axonal transport, release, degradation or re-uptake of these neurotransmitters, in the number of receptor sites, and in the sensitivity of receptors to the neurotransmitters as a possible basis of the behavioral changes. The evidence is growing that the behavioral deficits of the aged may be due primarily to metabolic dysfunction or neurotransmission imbalance rather than to cell alterations or loss. Needless to say, the interrelationship between the various neurotransmitters is very complex and poorly understood at the present time. Some neurotransmitters play facilitatory, and others play inhibitory roles, and they interact with each other to modulate the function or behavior in a balanced manner. For instance, in the striatum there normally exists a proper balance between the excitatory neurotransmitter, acetylcholine, and the inhibitory neurotransmitter, dopamine. Any change in the balance between these two may lead to abnormal involuntary movements or other abnormalities.

During aging the most striking changes in neurotransmission appear to involve the catecholamines dopamine and norepinephrine. Before describing some of the reported biochemical changes during aging, it might be well to briefly review what happens during neurotransmission (Fig. 1). The arrival of a nerve impulse or action potential at the nerve terminal leads to the release of a minute amount of transmitter from its storage vesicle, and the extrusion of the vesicular contents into the synaptic cleft. Once released, the neurotransmitter diffuses across the synaptic cleft, and then interacts with specialized receptor sites on the surface of the postsynaptic membrane,[31] activating the enzyme adenylate cyclase to increase the production of cyclic AMP (adenosine monophosphate), a so-called intracellular "second messenger,"[32] which is formed from adenosine triphosphate. The cyclic AMP then activates a protein kinase to phosphorylate,[33] via ATP (adenosine triphosphate), a protein substrate. The phosphorylated protein then permits an alteration of membrane conformation to initiate the change in ion permeability, with a resulting depolarization or hyperpolarization, depending on the equilibrium potential of the various ions in the cell. The activity of the system is terminated by a phosphodiesterase[33] that cleaves cyclic AMP,[34] and by a phosphatase that dephosphorylates the phosphoprotein to its native form. Termination of transmitter action depends not only on postsynaptic enzyme degradation, but washout from the synaptic cleft by diffusion, and, most important, re-uptake of the transmitter into the presynaptic neuron.

In regard to the synthesis of the catecholamines, dopamine and norepinephrine (Fig. 2), these substances have, as their starting compound, tyrosine,[35] which is hydroxylated by the enzyme tyrosine hydroxylase, the rate-limiting enzyme, to dopa or dihydroxyphenylalanine. This is then decarboxylated by means of the pyridoxal-dependent enzyme, dopa decarboxylase, to dopamine, the neurotransmitter. Dopamine appears to be an inhibitory neurotransmitter in at least four major brain tracts (the nigrostriatal, the mesolimbic and mesocortical systems, and in the tubero-infundibular system). Dopamine may then be beta-hydroxylated by the enzyme dopamine beta hydroxylase to the neuro-



TYROSINE
Tyrosine hydroxylase
DOPA
L-Aromatic Amino Acid Decarboxylase
DOPAMINE
Dopamine-B-hydroxylase
NOREPINEPHRINE
Phenylethanolamine-N-methyl transferase
EPINEPHRINE
COMT
MAO
3-Methoxy-4-hydroxy phenylethylamine
Normetanephrine
Metanephrine
3-Methoxy-4-hydroxy phenylacetaldehyde
3-Methoxy-4-hydroxy phenylglycolaldehyde
Aldehyde dehydrogenase
Homovanillic Acid (HVA)
Vanillylmandelic acid (VMA)
Aldehyde reductase
3-Methoxy-4-hydroxy phenylglycol (MHPG)
Dihydroxyphenyl Acetaldehyde
3,4-Dihydroxyphenyl Glycolaldehyde
Dihydroxyphenyl glycol
Dihydroxyphenyl Acetic Acid
Dihydroxy mandelic acid

FIGURE 2. Synthesis and catabolism of catecholamine neurotransmitters, dopamine, norepinephrine, and epinephrine.

transmitter norepinephrine, or may go on to form epinephrine by N-methylation by the enzyme phenylethanolamine N-methyl transferase. The conversion of norepinephrine to epinephrine occurs primarily in the adrenal medulla. Since only a very limited amount of synthesis of epinephrine occurs in discrete areas of the brain, and since the function of epinephrine in the brain is as yet poorly understood, it will not be further considered.

In regard to the catabolism of these two important catecholamine neurotransmitters, one can see (Figure 2) that two enzymes are involved, that is, the mitochondrial enzyme, monoamine oxidase, and catechol-o-methyl transferase. There may first be oxidative deamination by MAO (monoamine oxidase), and then o-methylation with catechol-o-methyl transferase, or first o-methylation and then oxidative deamination, to produce the final metabolic product, homovanillic acid in the case of dopamine, and 3-methoyx-4-hydroxy phenylglycol for norepinephrine. In the brain, the latter product rather than VMA (vanillylmandelic acid) is the most important final metabolic product of norepinephrine.

Only a very small number of reviews have concentrated on the age-related changes in the levels of the various neurotransmitters and their synthesizing and catabolizing enzymes. The values reported in the literature are generally inconclusive and fragmentary, with wide variations, possibly due to the presumed rapid postmortem autolysis, and, in part, to older chemical techniques. In the normal aged human brain, Samorajski and Rolsten[36] found dopamine levels in the striatum to be reduced, as well as decreased synthesis of catecholamines in a variety of brain regions in senescent mice. Carlsson and Winblad[37] found a progressive decline with age in the dopamine concentration of the putamen in man. The significant decline in dopamine content in the striatum of the aging brain disturbs the normal acetylcholine/dopamine ratio in favor of excess acetylcholine, accounting for the slowness in initiation and execution of movement and other parkinsonian features often seen in elderly people.

There are some conflicting reports in the literature regarding age-related changes in the excitatory catecholamine neurotransmitter, norepinephrine, which is found in the brainstem, particularly in the locus ceruleus, hypothalamus, cortex and elsewhere. Robinson[38] found that the norepinephrine concentration in hindbrain progressively decreased with age, and that this decrease correlated negatively with the increase in MAO activity. Based on the catecholamine hypothesis that depression is associated with decreased norepinephrine in the brain, one of the current treatments of depression includes the use of MAO inhibitors, which block MAO, elevating the level of norepinephrine by preventing its catabolism. The decrease in norepinephrine associated with aging might explain the depression and apathy so often seen in this age group.

McGeer and McGeer[39] found that there are substantial declines in the catecholamine synthetic enzymes, tyrosine hydroxylase and dopa decarboxylase, with age, particularly in the caudate, putamen, and nucleus accumbens. Robinson,[38] however, found no statistically significant relationship between tyrosine hydroxylase and age in a study of nine brain areas, including the caudate, in a series of 30 humans ranging in age from 4 to 83 years. The situation is unclear with respect to changes in the levels of the synthesizing enzyme, dopamine-B-hydroxylase. Samorajski and Rolsten[36] reported that the catabolizing enzyme, catechol-o-methyl transferase, showed no consistent trends with age in the mouse or rhesus monkey, but exhibited a marked decrease in activity with senescence in the human caudate nucleus. The activity of adenylate cyclase, which is indirectly essential for catecholamine neurotransmission, is greatly attenuated in the brains of geriatric patients.[40–42]

In contrast, the destructive enzyme, MAO, which is concerned in the oxidative deamination of brain monoamines, appears to increase with age in human serum, platelets, and brain tissue.[38,42] If one wishes to study MAO in aging, however, one must keep in mind the fact that the enzyme exists in multiple forms in the brain, heart, and liver,[43] is characterized by selective inhibitors and substrate specificity, and that the MAO pattern for the newborn infant is different from that of the adult or elderly individual in all tissues studied. For this reason there has been considerable confusion in the literature about the changes in MAO with aging in different species. In essence, there are two types of MAO: type A, in which the inhibitor, clorgyline, can be used to distinguish this type,[44] and in which serotonin is the best substrate, and type B, in which the inhibitor, deprenyl,[45] can be used for differentiation, and in which the preferred substrate is benzylamine. Tyramine and tryptophane are common substrates for both types. The functions of the two forms of MAO in the brain are not known.

Using benzylamine as the substrate, Robinson[47] and others[48] found that in the human hindbrain there is a consistent increase in MAO activity with age similar to that seen in human plasma and platelets. Gottfries et al.[46] found that the rise in MAO activity with advancing age was observed with B-phenylethylamine (preferred by MAO B as substrate), but not with tryptamine (a substrate for both types A and B). In contrast, Shih[43] in 1973 found that MAO activity increased in a four-month old rat compared with a two-month old rat when serotonin was used as a substrate, but that MAO decreased in the older rat when tyramine or benzylamine was used. McGeer and McGeer[39] reported that MAO activity in rat brains was not changed with age.

The neurotransmitter, serotonin, is found in the raphe nuclei in the brainstem, and in the hypothalamus, as well as in other locations. In regard to the synthesis and catabolism of this putative neurotransmitter (Fig. 3), serotonin is synthesized from

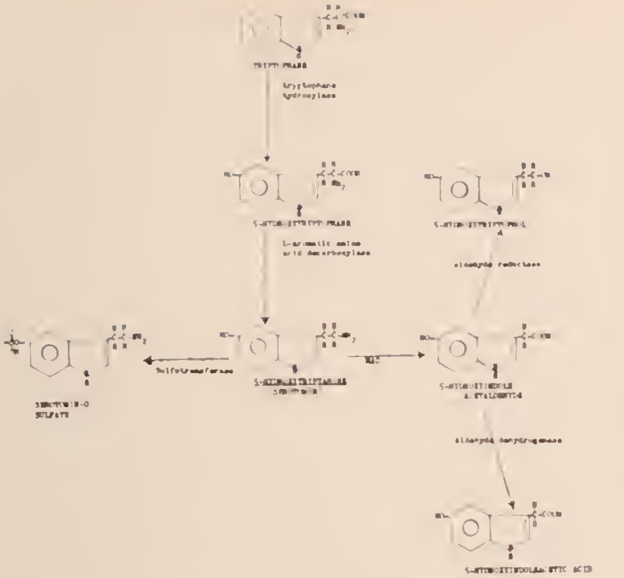


FIGURE 3. Synthesis and catabolism of neurotransmitter, serotonin.

tryptophane, an essential amino acid.[48,49] Tryptophane is hydroxylated by the enzyme tryptophane hydroxylase, the rate-limiting enzyme, to 5-hydroxytryptophane, which is then decarboxylated by the enzyme tryptophane decarboxylase to 5-hydroxytryptamine or serotonin. Serotonin is then catabolized by the enzyme monoamine oxidase to 5-hydroxy-indole acetaldehyde, and then either oxidized by aldehyde dehydrogenase to 5-hydroxy-indole[50,51] acetic acid, the major metabolite, or reduced by aldehyde reductase to 5-hydroxytryptophol, depending on the relative abundance of the enzymatic cofactors NAD (nicotinamide adenine dinucleotide) and NADH (nicotinamide adenine nucleotide dehydrogenase). Actually, reuptake is the main method of terminating its action.

Regarding the age-related changes in serotonin, Meek et al.[52] reported a marked loss of both serotonin and tryptophane hydroxylase in areas containing serotoninergic cell bodies and terminals, such as the raphe nucleus in the brainstem, septum and, hippocampus in old (24 months) rats, suggesting a loss of serotoninergic cell bodies with age. Others have found decreased levels in old chick and rat brains, but no change in the brains of aged humans.[53] Still other authors believe that successful assays of tryptophane hydroxylase are unreliable because of its instability in post-mortem samples. In contrast, the concentration of 5-hydroxy-indole acetic acid, the major metabolite of serotonin, appears to increase in the hindbrain[54] and cerebrospinal fluid[55] of elderly humans, thus lending support to the idea that the net synthesis rate of the neurotransmitter declines, but the rate at which it is catabolized increases during senescence.

Since very little is known about the age-related changes in the probable inhibitory neurotransmitter, gamma amino butyric acid, this substance will not be discussed. Mention should be made, however, of the fact that its synthesizing enzyme, GAD (glutamic acid decarboxylase), which converts glutamic acid to GABA (gamma-aminobutyric acid), and which is widely and rather evenly distributed in the grey matter of the brain, is decreased in the elderly, particularly in the thalamus, followed by cortical and rhinencephalic areas, with the basal ganglia showing relatively less decline with age (Fig. 4).[39,56]

In view of the role of the cholinergic system in learning and memory, and in the decreased capacity of these functions in the geriatric patient, it is surprising that relatively little is known about the alterations in the cholinergic system in the aged brain. The neurotransmitter, acetylcholine, is synthesized by the enzyme choline acetyl transferase, and then metabolized by the enzyme acetylcholine esterase. Although choline acetyl transferase is highly concentrated in the caudate, putamen, and parts of the limbic system, appreciable activity can be measured in every area of the brain examined. In the cholinergic system it is generally recognized that choline acetyl transferase is a more reliable index of acetylcholine content than is acetylcholine esterase.

No changes in acetylcholine levels[39,52,57] have been observed in any brain regions studied, but a significant decrease in choline acetyl transferase activity in the caudate nucleus has been noted in senescent brains.

In 1976 James and Kanungo[58] found that the density of muscarinic cholinergic receptor binding sites decreased with increasing age, as judged by the binding of atropine to synaptosomal fractions prepared from cerebral cortices of rats. In the human cortex there are indications that in the elderly, receptor binding also declines. This depletion of cortical cholinergic system, particularly in the hippocampus, might account for memory impairment in the elderly.

Frolkis[59] has contended that with aging there is a significantly increased sensitivity of receptor sites to neurotransmitters, a possible explanation of the age-related increased sensitivity to drugs.

The characteristics of an organism are determined by sequences of nucleotides found in DNA (deoxyribonucleic acid), which direct messenger and transfer, and ribosomal RNA (ribonucleic acid). The RNA in turn, directs the sequences of amino acid incorporation into proteins. Loss of DNA, RNA, and protein in the cell has been proposed as a source for declining functional capacity with increasing age. Since neurons and glia contain about the same amount of DNA, although neurons contain much more RNA than do glia, the ratio of RNA to DNA in brain tissue is an indication of neuron-glial relationships. Samorajski and Rolsten[36] reported a decrease in the RNA/DNA ratio in monkey brainstem, and a slight decrease in the human putamen, suggesting a loss of neurons with or without an increase in glia consistent with the general trend toward neural loss and glial proliferation with age.

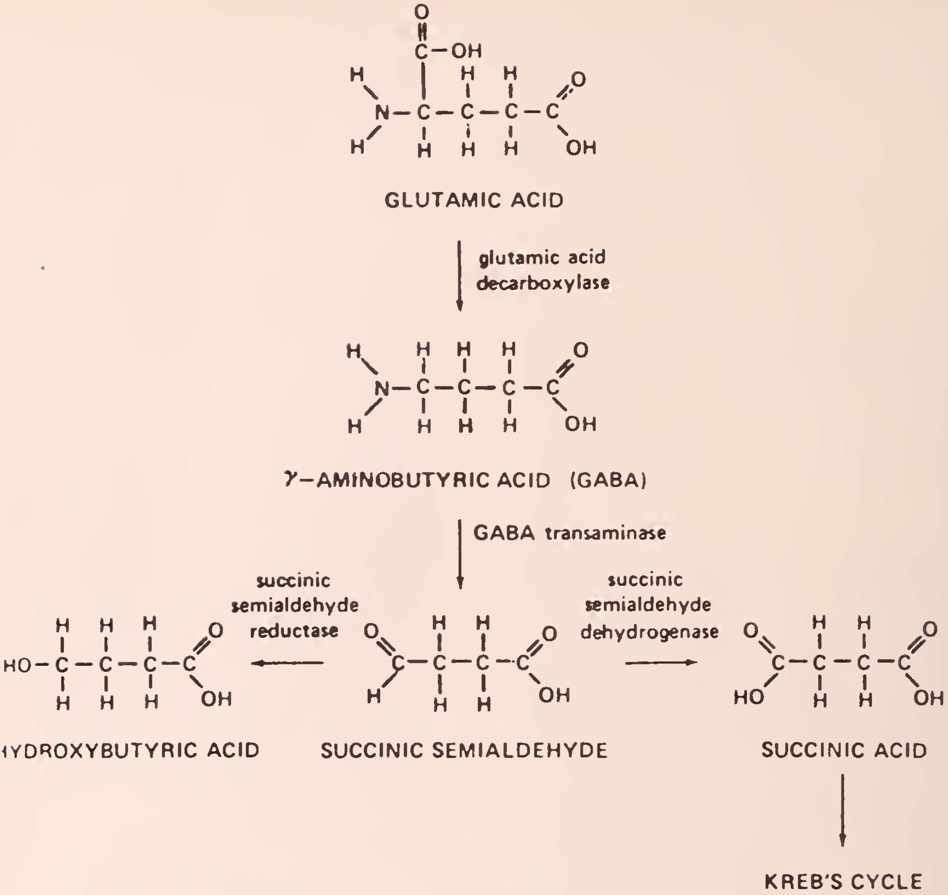

GLUTAMIC ACID
glutamic acid decarboxylase
γ–AMINOBUTYRIC ACID (GABA)
GABA transaminase
succinic semialdehyde reductase
succinic semialdehyde dehydrogenase
HYDROXYBUTYRIC ACID
SUCCINIC SEMIALDEHYDE
SUCCINIC ACID
KREB'S CYCLE

FIGURE 4. Synthesis and catabolism of GABA (gamma aminobutyric acid).

These authors[36] also measured the regional distribution of DNA and RNA in young and old mice, and in monkeys and humans, and found no great or consistent changes in concentration of these substances in various brain regions. As one might deduce, the total protein content is decreased,[60] and the rate of degradation is slightly increased.[61]

In regard to lipids, over half the dry weight of the brain is composed of these substances. Although small amounts of gangliosides and phospholipids in cellular and subcellular membranes may be concerned with neurotransmission and metabolic processes, most of the lipids in the central nervous system are an integral structural component of membranes. As a broad generalization, human brain lipid composition and turnover appear to change rapidly during development, and turn over relatively slowly during maturity, but continuously throughout life. The total lipid content is said to be decreased in senescence,[62,63] the rate of degradation slightly increased,[64] and the ratio of saturated to unsaturated fatty acids increased.[65]

Although it is certainly possible that pacemakers of aging reside in the hypothalamus, which could serve to regulate cellular aging in distant target organs, changes in the hypothalamic-pituitary-adrenal axis and neuroendocrine function during aging will not be discussed, since there are difficulties in interpreting the discordant data.

Despite the fact that with age there is a decline in cerebral blood flow, oxygen consumption, and glucose utilization in the human brain (as has been reported), these age declines have been attributed primarily to changes in cerebral blood flow associated with pathologic conditions rather than with normal aging. Although there are many contrary clinical reports, the most current view is that cerebral blood flow, oxygen uptake, and blood glucose levels and glucose utilization do not decline significantly in the brain of healthy normal human subjects from 50 to 72 years of age.[66,67] Cerebral vascular resistance, however, is said to increase.[66]

Comment

Despite the many studies on aging, very few substances have been reported to prolong life. It has long been known that partial starvation early in life has been capable of prolonging life, perhaps by delaying the time table for maturation, senescence, and death. The drug, meclophenoxate hydrochloride, which removes lipofuscin, and corticosteroids, are also reported to do this. Procaine hydrochloride (Gerovital H_3) is said by its proponents to have a rejuvenating effect, possibly because it is a weak MAO inhibitor. The late George Cotzias, who discovered the use of L-dopa (levodopa) in the treatment of Parkinson's disease, reported that the addition of L-dopa (40 mg. per gram) to the diet of rats extended their life span by 50 percent. Although no mechanism was proposed, the ready conversion of this amino acid precursor to dopamine and norepinephrine, and the known relations of these neurotransmitters to central nervous system function and to neuroendocrine regulation, suggest that these mechanisms may be involved.

It is obvious from this discussion that we know very little about the various physicochemical mechanisms that underlie aging. Since the central nervous system is of prime importance for normal physiologic and behavioral adaptation, changes in its structure or chemistry contribute greatly to the aging process.

Although the science of neurochemistry is still in its infancy, in the future it is hoped that growth in this field, with a study of the interactions of brain neurotransmitters and endocrine target organs, will help us to approach that ultimate, ever-elusive, goal, the fountain of youth.

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It's dangerous to awaken a sleepwalker, expert warns

Is there a sleepwalker in your household? If so, what can you do about it?

Psychiatric research studies published in the December issue of an American Medical Association publication, Archives of General Psychiatry, suggest that the sleepwalker not be rudely awakened.

Generally, the sleepwalker returns on his own to his room. If not, he usually can be led back gently. The sleepwalker episodes should not be interrupted, however. Such an intervention may lead to more confusion and fright.

The same advice holds for the sufferer of night terrors. Forcibly interrupting a night terror episode may result in more terror and confusion, and aggravate the patient's violent behavior, the researchers found.

Safety measures sometimes are necessary to guard the sleepwalker or night terror sufferer from physical injury. These include sleeping on the ground floor to prevent falling from upper windows and providing special locks and bolts for windows and doors.

MDs Anthony and Joyce Kales of the Sleep Research and Treatment Center, Pennsylvania State University College of Medicine, Hershey, and colleagues studied 50 adults with present or past complaint of sleepwalking, and additionally studied 40 adults who had a current complaint of night terrors.

Sleepwalking occurs most often in childhood. In adults it sometimes indicates an underlying emotional problem that requires treatment.

Night terrors and sleepwalking often go together. Bedwetting is a common problem among sleepwalkers.

Parents of children who sleepwalk may be reassured that in most cases sleepwalking does not reflect a serious psychological disorder, the Drs. Kales declare. Most children outgrow the condition.

Night terrors and sleepwalking probably are related to genetic and developmental factors in children. Adult night terror patients often are psychologically disturbed and psychotherapy is indicated, they say.

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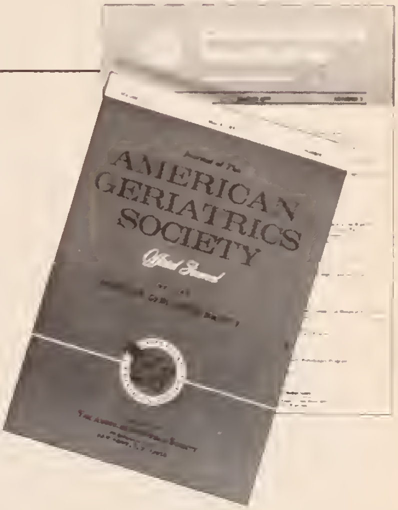
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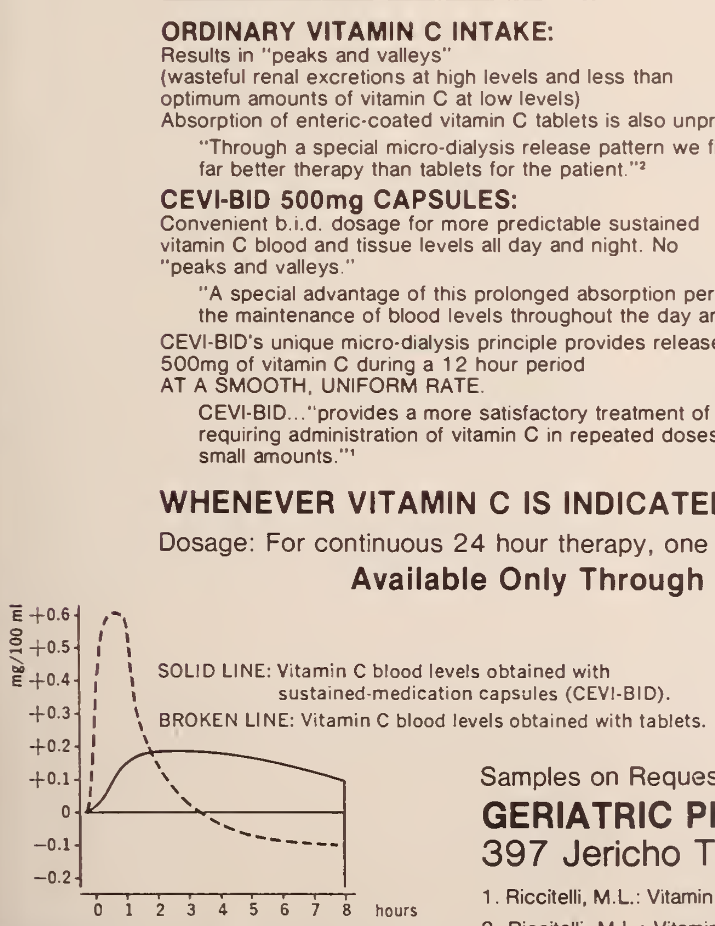

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DEVELOPERS AND SUPPLIERS OF GER-O-FOAM • GAYSAL • B-C-BID

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JEAN-ROBERT LEONIDAS, M.D.
Brooklyn, New York

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It is becoming more and more apparent that medicine should be practiced as both a science and an art,[1] and that treatment should be holistic and not consist almost solely of drugs and surgical procedures; reaching the patient's soul is equally critical.[2] This article emphasizes the role of selected music as an adjunctive therapeutic tool. The author is presenting herewith some personal observations and anecdotal reports, together with some scientific data.

Personal observation and anecdotes

On one of those days that even the nonatopic person would call murderous, I stopped at an intersection for a traffic light and was seized by my one-hundreth attack of rhinitis—runny eyes, headache, and myalgia. Suddenly, from a nearby church, sounds of bells drifted through the air and the vibration of a supreme "E" revitalized the deepest cells in my body. The next moment I felt bathed in a pure and complete harmony, and drove away feeling ready to continue the battle. That is not to say that I was completely cured, but from somewhere deep down surged enough energy and serenity to alleviate the physiologic disturbance.

This fleeting moment of deep experience brought back precious memories; I recalled those afternoons of my childhood at the choir rehearsal of Gregorian chants. These melodies never failed to bring about a feeling of peace, particularly after days of arid mathematics and never ending geography.

Gregorian chants originated in early Christian times under the reign of Pope Gregory I and probably were derived mostly from Jewish melodic practice with some Greek theoretic influence. During the Middle Ages, the chant melodies were used as the basis for polyphonic composition, and the traditional Gregorian method of performance was mutilated, to be restored only in the nineteenth century by the Benedictine monks. Today, many inspiring polyphonic pieces and church songs are reminiscent of this music.

The obviously soothing and healing effect of music (particularly liturgic or religious) is well known. Recently, the author had a moving experience at the Kings County Hospital and requests your forbearance in relating it here. During the relocation of the medical clinic to another floor with new and better facilities, everyone was short tempered; things were not well organized, charts were not available, and clerks, nurses, and physicians were unfamiliar with the new surroundings. This chaotic situation was fast becoming explosive when one of the administrators approached a nurse, known for her singing talent, and asked her to perform. As she sang the "Lord's Prayer," her nightingale-like voice filled the air with melodious tones. Never have we witnessed anything like what happened next. All action ceased; voices were hushed, and heads turned toward the amplifiers. Before the nurse could vocalize the last notes, "the power, and the glory . . . forever, A-a-men," a complete metamorphosis had taken place: the atmosphere had become lighter and was conveying peaceful vibrations. One of the patients said, as I went in to examine him: "Doctor, it is a miracle."

Yes, a miracle! Have you ever heard about a hospital run by a convent? The patients from the wing of the sanatorium adjacent to the chapel showed a degree of recovery far superior to those from the distant wing. In the vicinity of a convent where the young neophytes were singing every day, another asylum registered a one-time, high record of healing and recovery. Would you be surprised to know that in one of the mountain top villages in Switzerland, the temperament of the inhabitants became mellowed and their health improved in the areas where the wind direction carried the sounds of the chapel bells?

Facts

We say "La musique adoucit les moeurs" (Music mellows the character). All of us have benefited from some relaxation provided by sweet musical sounds, in particular those produced by those marvellous instruments, the vocal chords. An irritated baby or upset child responds almost immediately to the tune of a lullaby. From time immemorial, princes and princesses were offered musical boxes to calm and soothe their periods of agitation and tears.

All our children benefit from singing Teddy-bears, musical elephants, and so forth. The abdominal colic of an infant oftentimes disappears when he is sung to. A known fact remains that the American slaves adapted certain biblical verses and sang them at times of trouble and deep physical or emotional hurt. The beauty and therapeutic qualities of Negro spirituals remain to this day, and are well documented. Some cults and esoteric sects use special sounds to create an ambiance in which harmony and contemplation are achieved. It is believed that adepts of transcendental meditation, by reaching inner peace and harmony, are free from psychosomatic maladies.

Have you ever worked in an emergency room during the Christmas season? Fewer patients are admitted! Could it be at least partially because everywhere the carols are being heard? In some hospitals, during early hours of rounds on Sundays, religious music is generally piped in throughout the corridors. Patients, personnel, and visitors are much more quiet, and it seems that the patients are less tense and their complaints are fewer.

One certain effect of music on the physiology of mammalians cannot be denied when one remembers, for example, that the milking cows produce more milk in an environment filled with piped-in music. One wonders what would be the effect of music on human prolactin.

Data from medical literature

Some data are available in medical literature that stress the beneficial effect of music on certain physiologic disturbances, or in its role as an adjuvant therapeutic agent. For example, listening to relaxing music will decrease airway resistance.[3] One wonders if one should not take advantage of such an effect. In emergency divisions having separate "asthma rooms," relaxing or sedating music, concurrent with the administration of standard pharmacotherapy, could be played; a beneficial effect should be expected, particularly in emotionally and exercise-induced asthma.

> . . . David took an harp and played with his hand: so Saul was refreshed* and was well, ..."—1 Samuel, Chapter 16, Verse 23

Parenthetically, Saul probably suffered from an episode of reversible airway obstruction. It certainly was not left-ventricular failure or pulmonary embolism!

It seems logical to expect other stress-related diseases to benefit from musical therapy; as we know, the list of such diseases would encompass all organ systems, with the cardiovascular system in the front line. "At present, emotional stress remains an elusive yet culpable risk factor in the pathogenesis of most major cardiovascular disorders of our time."[4] Luckily, some scientists begin to stress the importance of nonpharmacologic therapy in the treatment of major conditions, for instance, the use of diet and relaxation techniques to control hypertension.[5] Music is one effective means of relaxation and is even thought to be of therapeutic value in hypertension.[6] Perhaps soft music in the waiting room of a physician's office or a hospital clinic would alleviate the anxiety of the first visit and would help to prevent the high blood-pressure recordlng of the well-known "first visit." Indeed, music is being used as an anxiolytic agent in dental offices.[7] The patient lays back in the dental chair listening to music through headphones, is calm, and at the same time is isolated from the dental instruments' noise. It is being recognized that music is helpful in physiotherapy for the elderly; during sessions, music is used as background and serves as an incentive to achieve optimum exercises.[8,9]

Music is also an analgesic. In the palliative-care unit at the Royal Victoria Hospital in Montreal, selected musical pieces helped improve the quality of life in patients with advanced malignant conditions. Frequently, analgesics were discontinued and patients were "treated' only with relaxation techniques and musicotherapy.[10] The "morceaux" were often liturgic in nature: "Ave Maria" (Schubert); "Jesu Joy of Man's Desiring" (Bach); "Laudate Dominum from the Vespers" (Mozart); and "Swan" (Saint Saens). The idea of music selectivity is important. Needless to say, the stimulating and stormy beats of some pop music would be less than welcome when one suffers from a throbbing migraine headache. Such music induces cardiovascular changes that probably would not be beneficial to a patient with angina or other cardiovascular diseases.[11] We also know the deleterious effect of noisy sound on the hearing system. Therefore, in musicotherapy, the selection of music is essential.

Music has already been tried as an important adjuvant therapy, with the reports available coming mostly from Europe.[6,12–14] In 1976, Gala[13] reported on a study done at Dusznikachzdroju Medical Center in Poland; 408 patients with headaches and painful neurologic diseases participated in the study. They were divided into two groups treated with both analgesics and sedatives. One group was allowed 12 20-minute sessions of symphonic music and the patients were followed for six months. It was found that the amount of medication used was significantly lower in the group that received musicotherapy; therefore, such therapy prevented drug abuse.[13] Furthermore, music had been used in the treatment program for drug addiction.[14] Last, but not least, music can be a powerful tool in the management of psychologic disturbances and character disorders.[15]

Comment

To avoid the so-called "piecemeal approach to health" and to take into consideration the spiritual needs of the patient, it is about time we physicians begin to view the patient in a more holistic manner.[2]

---

*breathed better.

Obeying rigid scientific rules is not realistic and we need to be better educated in that aspect. Fortunately, some of us already see the importance of introducing more humanistic material in medical curriculum.[1] What good is a healthy body with an ailing soul, or, rather, how healthy can the body be when the soul suffers? Music can speak to the soul and refresh the body. Since we are in the business of healing and restoration of life, we must use whatever means and resources that are available to us toward this worthy goal. One way to achieve a greater harmony and serenity is through the judicious usage of music; let us offer the same analgesic to our patients.

> We shall be then like Socrates when we can endite hymns of praise to the gods in prisons.—Epictetus

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High altitudes blamed in eye hemorrhages

Skiers, hikers, and mountain climbers who mount rapidly to great heights risk eye injury from small hemorrhages under the surface of the eyeball.

Further studies on this medical event are reported in the February 13 Journal of the American Medical Association from scientists in a laboratory on the summit plateau of Mt. Logan in the Canadian Yukon, at 17,500 feet.

Thirty-nine healthy men and women were examined before and after a stay on the Mt. Logan facility. More than half had hemorrhages in the retina of the eye and one showed "cotton-wool spots."

The eye hemorrhages were more frequent during strenuous exercise, and more frequent among those who reached the high altitude quickly. Those who climbed slowly up to Mt. Logan had fewer eye bleeding episodes.

Most common damage consisted of multiple flame-shaped hemorrhages, but "dot and blot" and other types also were seen.

The hemorrhages in the eye are the result of the lower oxygen content of the high air. This brings a large increase in volume of blood flow to the eyes in an effort to compensate for reduced oxygen in the blood. The extra rush of blood sometimes brings small ruptures under the surface of the eye.

Usually the eye hemorrhages caused no permanent damage, clearing up without treatment. For the most part they are not sufficiently serious to require the climber to descend. There is, however, one type of altitude-induced eye hemorrhage that interferes with vision. If this occurs, the climber should go to lower elevations quickly.

The report is from a group headed by D. Murray McFadden, M.D., of the Arctic Institute of North America, Calgary, and the Department of Ophthalmology, the University of British Columbia, Vancouver. Charles S. Houston, M.D., of the University of Vermont, Burlington, was the American physician with the Canadian research team.

Obituaries

Paul Max Caan, M.D., of New York City, died on November 7 at the age of 89. Dr. Caan received his medical degree from the University of Strassburg in 1915. He was an adjunct orthopedic surgeon at the Hospital for Joint Diseases and Medical Center. Dr. Caan was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

William Fields Caveness, M.D., of New York City, died on January 24 at the age of 72. Dr. Caveness graduated in 1943 from McGill University Faculty of Medicine.

John Marquis Converse, M.D., of New York City, died on January 31 at the age of 71. Dr. Converse received his medical degree from the University of Paris in 1935. He was director of plastic surgery at Manhattan Eye, Ear, and Throat Hospital and an attending surgeon at Bellevue and University Hospitals. Dr. Converse was a Diplomate of the American Board of Otolaryngology, a Diplomate of the American Board of Plastic Surgery, a Fellow of the American College of Surgeons, and a member of the American Society of Plastic and Reconstructive Surgery, the American Academy of Ophthalmology and Otolaryngology, the American Laryngological Association, the Society for Experimental Biology and Medicine, the American Association of Plastic Surgeons, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

George Francis Cunningham, M.D., of Sayville, formerly of Brooklyn, died on November 29 at the age of 71. Dr. Cunningham graduated in 1935 from Long Island College of Medicine. He was a consulting pediatrician at Brooklyn-Cumberland Medical Center. Dr. Cunningham was a Diplomate of the American Board of Pediatrics and a member of the American Academy of Pediatrics, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Isaac E. Edelman, M.D., of Richmond Hill, died on February 1 at the age of 83. Dr. Edelman graduated in 1921 from Long Island College Hospital. He was an honorary general practitioner at Jamaica Hospital. Dr. Edelman was a member of the American Academy of Family Physicians, the American Geriatrics Society, the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Martin L. Goebel, M.D., of Hicksville, died on February 10 at the age of 86. Dr. Goebel graduated in 1921 from University and Bellevue Hospital Medical College. He was a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

William Goldring, M.D., of New York City, died on February 2 at the age of 82. Dr. Goldring graduated in 1922 from University and Bellevue Hospital Medical College. He was an attending physician at Bellevue and University Hospitals and a consulting physician at Beth Israel Medical Center. Dr. Goldring was a Diplomate of the American Board of Internal Medicine (Cardiology), a Fellow of the American College of Physicians, and a member of the Society for Experimental Biology and Medicine, the American Physiological Society, the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Seymour Goldstein, M.D., of Pembroke Pines, Florida, formerly of Brooklyn, died on February 4 at the age of 69. Dr. Goldstein received his medical degree from the University of Berlin in 1938. He was an assistant family practitioner at Brookdale Hospital Medical Center. Dr. Goldstein was a member of the American Academy of Family Physicians, the American Geriatrics Society, the Medical Society of the County of Kings, the Medical Society of the State of New York, the American Medical Association.

Henry Greenberg, M.D., of Lindenhurst, died on March 2 at the age of 75. Dr. Greenberg graduated in 1930 from New York Homeopathic Medical College and Flower Hospital. He was a general practitioner at Brunswick Hospital Center. Dr. Greenberg was a member of the American Academy of Family Physicians, the Suffolk County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Aleksander Grudzinsky, M.D., of Astoria, Long Island City, and Jackson Heights, died on January 26 at the age of 80. Dr. Grudzinsky received his medical degree from the Univeristy of Zagren in 1928. He was a general practitioner at Flatbush General Hospital. Dr. Grudzinsky was a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

August G. Hinrichs, M.D., of Lake Success, died on November 21 at the age of 82. Dr. Hinrichs graduated in 1920 from Columbia University College of Physicians and Surgeons. He was a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Jane Smith Hobson, M.D., of Cranford, New Jersey, formerly of New York City, died on December 30 at the age of 57. Dr. Hobson graduated in 1948 from Cornell University Medical College.

S. Ransom Jagger, M.D., of Westhampton Beach, died on February 25 at the age of 82. Dr. Jagger graduated in 1924 from Cornell University Medical College. He was an honorary physician in medicine at Central Suffolk Hospital Association and Southampton Hospital. Dr. Jagger was a member of the American Academy of Allergy, the Suffolk County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Else Kaufmann, M.D., of New York City, died on January 17 at the age of 83. Dr. Kaufmann received her medical degree from the University of Vienna in 1921. She was a senior clinical assistant, off service, pediatrician at The Mount Sinai Hospital and an adjunct, off service, pediatrician at Bronx-Lebanon Hospital Center. Dr. Kaufmann was a Diplomate of the American Board of Pediatrics and a member of the American Academy of Pediatrics, the American Medical Women's Association, the Pan American Medical Association, the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Maver Miller Lee, M.D., of Guilderland, died on February 21 at the age of 87. Dr. Lee graduated in 1921 from Albany Medical College. He was a member of the Albany County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Robert McClanahan, M.D., of New York City, died on January 2 at the age of 77. Dr. McClanahan graduated in 1929 from the University of Virginia Department of Medicine. He was an honorary ophthalmologic surgeon at the New York Eye and Ear Infirmary and a consulting ophthalmologist at St. Luke's Hospital Center. Dr. McClanahan was a Diplomate of the American Board of Ophthalmology, a Fellow of the American College of Surgeons, and a member of the American Academy of Ophthalmology and Otolaryngology, the New York Academy of Medicine, the New York Ophthalmological Society, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Morton Field Mark, M.D., of Sarasota, Florida, formerly of New York City, died on January 25 at the age of 74. Dr. Mark graduated in 1933 from Rush Medical College. He was a Diplomate of the American Board of Internal Medicine.

Everett Thomas Mercer, M.D., of Hamburg, died on January 26 at the age of 87. Dr. Mercer graduated in 1918 from the University of Buffalo School of Medicine. He was an honorary member of the medical staff at the Sisters of Charity Hospital of Buffalo. Dr. Mercer was a member of the American Academy of Family Physicians, the Buffalo Academy of Medicine, the Erie County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Kalman Molnar, M.D., of New York City, died on January 25 at the age of 83. Dr. Molnar received his medical degree from the University of Budapest in 1924. He was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Arnoldo C. Mora, M.D., of New York City, died on November 14 at the age of 50. Dr. Mora received his medical degree from the University of Buenos Aires in 1959. He was a member of the American Psychiatric Association, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Melvin David Moskowitz, M.D., of Islip and Islip Terrace, died on February 16 at the age of 49. Dr. Moskowitz received his medical degree from the University of Ghent in 1959. He was an assistant physician at Southside Hospital and a gastroenterologist at Central Islip Psychiatric Center. Dr. Moskowitz was a member of the American Thoracic Society, the American Gastro-Enterological Association, the American Geriatrics Society, the Suffolk County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Francis John O'Neill, M.D., of Hauppauge, died on February 23 at the age of 73. Dr. O'Neill graduated in 1932 from the University of Vermont College of Medicine.

Nelly Schick, M.D., of Jackson Heights, died on April 24, 1980, at the age of 86. Dr. Schick received her medical degree from the University of Vienna in 1920. She was a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

David H. Schulman, M.D., of Brooklyn, died on January 26 at the age of 73. Dr. Schulman graduated in 1930 from Long Island College Hospital. He was a Fellow of the American College of Angiology, a Fellow of the American College of Chest Physicians, and a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Louis William Stoller, M.D., of Red Hook, died on March 3 at the age of 83. Dr. Stoller graduated in 1928 from Harvard University Medical School. He was a consulting surgeon at Northern Dutchess Hospital, an orthopedic surgeon at Harlem Valley Psychiatric Center, an honorary surgeon at Vassar Brothers Hospital, and a consulting orthopedic surgeon at Wassaic Development Center. Dr. Stoller was a Fellow of the American College of Surgeons and a member of the Dutchess County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Alexander F. Wahlig, M.D., of Bath, died on February 20 at the age of 75. Dr. Wahlig graduated in 1919 from Hahnemann Medical College of Philadelphia. He was an ophthalmologist at the Ira Davenport Memorial Hospital. Dr. Wahlig was a member of the Steuben County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Richard Cunningham Wallace, M.D., of New York City, died on January 11 at the age of 42. Dr. Wallace graduated in 1965 from Columbia University College of Physicians and Surgeons. He was an assistant psychiatrist at Montefiore Hospital and Medical Center. Dr. Wallace was a Diplomate of the American Board of Psychiatry and Neurology (Psychiatry) and a member of the American Psychiatric Association, the New York County Medical

Society, the Medical Society of the State of New York, and the American Medical Association.

Louis Leo Weiss, M.D., of Bay Harbor Island, Florida, formerly of Brooklyn, died on December 28 in his 72nd year. Dr. Weiss graduated in 1926 from the University of Maryland School of Medicine and College of Physicians and Surgeons. He was a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Acute appendicitis remains frequent and serious illness

Old fashioned acute appendicitis is still the most frequent reason for emergency surgery. And people still die from it.

Timing is all important. If the condition is diagnosed early and surgery performed before the appendix ruptures, the death rate has been quite low. And even in cases of burst appendixes mortality has greatly decreased through modern medications and techniques.

In a report from Finnish surgeons in Helsinki published in the February Archives of Surgery, a publication of the American Medical Association, of 9,652 cases of appendicitis, 26 patients died. The proportion of deaths is six times as great among those whose appendix ruptures.

Most of the deaths were among elderly people, the Finnish physicians found. With the rise in the elderly population, more older people are suffering appendicitis. Symptoms are similar in all age groups, but in the older individuals progression of appendicitis is much quicker and thus a rupture is more likely.

Active and careful attention to patients with possible appendicitis, especially in the elderly, is important to survival.

Pain, tenderness, and spasm in the right side of the abdomen are the typical symptoms of appendicitis. Nausea and vomiting are common, but do not always occur. There usually is a slight fever. Pain may be first felt in the pit of the stomach, then moves to the right side of the abdomen. Pain sometimes occurs in the back.

Sudden disappearance of pain does not mean that the appendicitis attack has ended. This might be caused by a rupture of the appendix, releasing its contaminating contents into the abdominal cavity.

Crying, vomiting, and refusal of food may be the first symptoms in children. Do not give a laxative or enema without first consulting a physician.

Many conditions produce symptoms similar to appendicitis, making the diagnosis not always quick or simple. The only treatment for appendicitis is removal of the appendix, a relatively simple operation if the organ has not burst. After a rupture, the surgery and cleanup task is much more difficult.

In an editorial comment on the Finnish studies, Ward O. Griffen, Jr., M.D., of Lexington, Ky., points out that populations in the Scandinavian countries and the United States are increasing in age, and surgeons are more likely to be confronted with elderly patients suffering from appendicitis. Diagnosis often is difficult, as the customary symptoms sometimes are lacking in the elderly, Dr. Griffen says.

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Annotations of Books Received*

* Books received for review are acknowledged promptly in this column. No other obligation is assumed for the courtesy of those sending them for this purpose. Selection for review is made on the basis of merit and reader interest.

HISTORY OF MEDICINE

American Medicine in Transition, 1840–1910. By John S. Haller, Jr. Urbana, Ill. University of Chicago Press, 1981. Illustrated, 457 pages. Cloth, $27.95.

An analysis of the changes and growing pains of American medicine in this transitional period and its development from art to science.

INTERNAL MEDICINE

Advances in Internal Medicine. Volume 26. Edited by Gene H. Stollerman, M.D. Associate Editors: William J. Harrington, M.D., Joseph B. Kirsner, M.D., Charles J. Kossmann, M.D., and Marvin D. Siperstein, M.D. Chicago, Year Book Medical Publishers, Inc., 1980. Illustrated, 599 pages. Hardcover.

A review of selected topics in the field.

PHYSIOLOGY

Respiratory Physiology III. Edited by John G. Widdicombe, M.D., Ph.D., F.R.C.P. Baltimore, University Park Press, 1981. Illustrated, 339 pages. Hardcover, $39.50 (**International Review of Physiology, Volume** 23).

Reviews of key topics and current developments.

NEOPLASMS

Cancer: Signals and Safeguards. Edited by Gerald P. Murphy, M.D. Littleton, Mass. PSG Publishing Co., Inc., 1981. Hardcover, 224 pages.

Current concerns and levels of activity in cancer control and prevention.

TESTICULAR NEOPLASMS

Early Detection of Testicular Cancer. Edited by Niels E. Skakkebaek, Jorgen G. Berthelsen, Kenneth M. Grigor, and Jakob Visfeldt. Copenhagen, Denmark, Scriptor, 1981. Illustrated, 239 pages. Cloth, $20.

Proceedings and discussions from a workshop held in Copenhagen, Denmark, November, 1980.

BRAIN DEATH

Cerebral Death. By A. Earl Walker, M.D. Second edition. Baltimore, Md., Urban & Schwarzenberg, 1981. Illustrated, 212 pages. Hardcover, $32.50.

New developments in the diagnosis and new ramifications of the problem of cerebral death.

ENZYME INHIBITORS

Angiotensin Converting Enzyme Inhibitors: Mechanism of Action and Clinical Implications. Edited by Zola P. Horovitz. Baltimore, Md., Urban & Schwarzenberg, 1981. Illustrated, 451 pages. Hardcover, $35.

Proceedings of the A. N. Richards Symposium sponsored by the Physiological Society of Philadelphia, May, 1980.

Pneumonia vaccine effective in diabetics

Pneumonia vaccine is effective in raising the antibody level against the disease in diabetics, says a report in the December 12 Journal of the American Medical Association.

Health authorities have recommended that diabetics be vaccinated against pneumonia, because pneumonia when combined with diabetes greatly increases the risk of death, says Thomas R. Beam, Jr., M.D., of the State University of New York, Buffalo.

But it had been uncertain whether diabetes impaired the ability of the vaccine to trigger antibody production against pneumonia in the body.

Dr. Beam conducted a test of the vaccine, Pneumovax, among volunteers in the Buffalo Veterans Administration Medical Center. He administered Pneumovax, which includes 14 different strains of the pneumonia virus. Pneumovax, according to AMA Drug Evaluations, 4th edition, protects against about 80 percent of the viruses that cause pneumonia.

Dr. Beam found that the diabetics responded well to the pneumonia vaccine. Levels of antibodies in the blood were sufficiently high to offer protection from the disease, if caused by one of the 14 strains included in the vaccine.

(*continued from page 875*)

tied to the critical realities of today's heroin policies at the state and federal levels. Each of the ten selections bears on such central and timely policy issues as the social and legal costs of heroin use; the effects of heroin price fluctuations and drug expenditures on criminal activity; the influence of foreign opium growth on domestic heroin use; the effectiveness of legal sanctions on addicts; measurement of the effectiveness of drug abuse prevention programming; cost-benefit analysis, and the effectiveness of employment programming for ex-addicts.

The authors obviously have been carefully selected. They consistently demonstrate competence in method as well as excellence in conceptualization. One minor drawback is that all of the research is dated—none contain data past 1975, and much of the data are from the late 60s and early 70s. Nonetheless, the methodological contributions are rich and varied and should be of enormous assistance in furthering policy research in the field of substance abuse. The potential substantive contribution of this book is even greater because it focuses on issues critical to funding decisions at a time of major potential fiscal reductions in the face of alarming increases in heroin availability and purity. **Douglas S. Lipton, Ph.D.**

Biology of Ovarian Neoplasia. Edited by E. D. Murphy and W. G. Beamer. Geneva, Switzerland, International Union Against Cancer, 1980. UICC Technical Report Series, Volume 50. Paperback, 132 pages. Price, Swiss Francs, 16. (Available from above organization at 3 Rue du' Conseil General, Geneva, 1205).

This UICC workshop on the "Biology of Ovarian Neoplasia" has attempted to review the current understanding of the etiology, pathogenesis, and pathophysiology of the major types of human ovarian cancer. Broader clinical aspects such as diagnosis and treatment are considered only in so far as they relate to these objectives.

Special emphasis is placed on the evaluation of animal models in terms of their similarities to and differences from the human tumor types.

While each presentation was prepared by the listed author, it was thoroughly discussed by the entire group and modifications based on additional information were included. The "Suggested Goals for Further Research" represent a consensus of the group.

The material is recommended especially for gynecological endocrinologists and researchers involved in the epidemiology of ovarian cancer. **Leonard B. Goldman, M.D., F.A.C.R.**

Nutrition in Clinical Surgery. Edited by Mervyn Deitel, M.D. Baltimore, Md., Williams & Wilkins, 1980. Illustrated, 318 pages. Cloth, $34.

It may surprise many in reading this volume that various forms of parenteral nutrition in experimental animals and man were attempted as early as the 17th century. Refinement to their present state of clinical application is due to a long succession of far seeing physicians and nutritionists who have developed these life-saving modalities for intervention in not only surgery, but also many catastrophic clinical circumstances.

The volume is comprised of two parts; Section I. *Principles and Techniques;* contains 17 chapters which review in detail current procedures, advances in knowledge of nutritional concepts, and parameters for assessment of health benefits. Section II. *Special Problems in Surgical Nutrition;* presents 14 chapters which describe in detail new horizons in intravenous alimentation, hyperalimentation procedures for the management of various gastrointestinal complications, nutritional support modalities for cancer or burn patients, and operative risks encountered in obese patients. Each of the 47 contributors to this much needed volume are all eminently qualified by scientific approach and practical expertise in this rapidly expanding area of clinical nutrition. **Anthony A. Albanese, Ph.D.**

Pathology Annual: Part I. 1980. Volume 15. Series Editors: Sheldon C. Sommers, M.D., and Paul Peter Rosen, M.D. New York, Appleton-Century-Crofts, 1980. Illustrated, 482 pages. Cloth, $35.

Many pathologists have a favorite article from a previous edition of the "Pathology Annual" to which they refer for a review of a subject or as a different look at a biologic process. This volume will not disappoint most physicians. The editors have enlisted the talents of a distinguished group of scientists resulting in a somewhat irregular level of coverage of a wide array of subjects that tries to provide something for everyone. For the practioner there is an excellent review in the use of depth of invasion of melanomas to predict prognosis.

There is an articulate look at the differential diagnosis of a wide variety of myxoid tumors and a review of nonneoplastic bone lesions by the Mayo group which provides much usable information for diagnosis. There are two provocative articles discussing new and different concepts concerning breast malignancy.

For the electron microscopist, there are articles on electron microscopy diagnosis of lysosomal storage disease and adipose tumors. The basic biologist will find information on immune complex in thyroiditis and on the immunopathology of infectious mononucleosis. There are a number of other articles spanning a wide range of pathology. The two articles on the myofibroblast are not complementary and should have been combined into a single presentation.

There will be many articles which appear to be too superficial for some readers and others too complex or esoteric. However, this volume again succeeds in providing an intelligent mix of provocative, practical, and basic biologic information that is worthy of reading and having as a ready reference in each pathologist's library. **Bedros Markarian, M.D.**

Psychiatric Consultation in the General Hospital. By Lewis S. Glickman, M.D. New York, Marcel Dekker, Inc., 1980. Hardcover, 273 pages. Price, $23.50.

Louis S. Glickman, M.D., clinical associate professor of psychiatry at State University of New York Downstate at Brooklyn, and director of adult psychiatric consultation at Kings County Hospital, has had special training and research interest in the field of psychosomatics and psychiatric consultation.

This is a well written practical guide, a "what to do and how to do it," covering the majority of problems the psychiatric consultant meets in the general hospital. Part I focusses on the process: data gathering, formulation of the problem, and communication. Part II is a clinical display

(*continued on page 986*)

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BACTERIA, DIET AND THE PREVENTION OF DENTAL CARIES—PART II

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In part I of this article[1], human dental caries (tooth decay) was discussed as an infectious disease resulting from specific interactions between cariogenic oral bacteria, such as *Streptococcus mutans*, and the fermentable carbohydrates which are found in the diet. From our increasing knowledge of the details of the formation of carious lesions in teeth, three main approaches to disease control have evolved. In addition, good oral hygiene practices, such as brushing and flossing, continue to be extremely important in helping to prevent dental caries. Each of these approaches contains several new and exciting potential means for caries prevention.

Caries Control: Protecting the Teeth

Water fluoridation, salt fluoridation and fluoride containing tablets, dentrifices, mouth rinses and gels are all capable of preventing caries to some degree.[2] Fluoride can suppress sugar metabolism by bacteria, make enamel more resistant to acid and stimulate remineralization of the teeth. "...optimal level fluoridation of drinking water can prevent 65 percent of decay that would otherwise occur."[3] Three new approaches to deliver fluoride to the tooth surface and ensure adequate exposure time are being studied.[4] Sodium fluoride has been incorporated into capsules which, when chewed, release 10 to 15 percent of the fluoride. When the capsule is swallowed, the remaining fluoride is released in the gastrointestinal tract from where it is absorbed and slowly returned to the mouth via saliva. A second related approach involves an aerosol which causes fluoride-containing microcapsules to adhere to the teeth where enhanced fluoride uptake by plaque and enamel could occur. A third approach involves attaching to the teeth a small device consisting of an inner core of a fluoride-containing material surrounded by a membrane. Fluoride is released from the device at a predetermined rate for at least six months.

It is important to note that fluoride is most effective in reducing caries on the smooth surfaces of teeth, but it is less effective on the biting surfaces. Since caries on these latter surfaces account for approximately 40 percent of all carious surfaces in six and seven-year-old children, it must be pointed out that sealant materials have been developed which are ideal for protecting these areas of the teeth. These polymers must be carefully applied in a dental office.

Caries Control: Diet Modification

Dental caries is associated with both the frequency of ingestion of fermentable carbohydrate and the duration of time the substrate is retained in the mouth.[5] Few clinical trials to determine the cariogenicity of various sugars have been performed. One important study was performed in Turku, Finland.[6] In this experiment caries formation was monitored in subjects ingesting foods containing a normal level of sucrose, foods with fructose in place of sucrose, and foods with xylitol in place of sucrose. After two years it was determined that the group consuming sucrose had an average caries index of decayed, missing and filled teeth of 7.2. The indices of the fructose and xylitol groups were 3.8 and 0.0, respectively. Since oral bacteria can not ferment xylitol, this study demonstrated the role of fermentable carbohydrate in human caries formation. It is important that this study does not allow a prediction as to what might be the effect of partial substitution of fructose for sucrose in the diet.

It has been proposed that caries could be prevented by altering the diet through replacement of sucrose or by reducing the frequency of sucrose consumption. The unique physical and chemical properties of sucrose have made attempts to develop and substitute other agents in many foodstuffs extremely difficult. Artificial sweeteners and other sugar substitutes have been extensively evaluated.[7,8] In developing an appropriate substance, one must carefully consider the metabolism and safety of the substitute, practical problems in using the compound, and the regulatory aspects of its utilization. As with xylitol, evaluation of the cariogenic potential of a substitute can be upstaged by an evaluation of its carcinogenicity.[9]

As mentioned previously,[1] an important aspect of *S. mutans* metabolism is that this bacterium has the ability to efficiently transport and metabolize not only sucrose but glucose, fructose, lactose, mannitol and sorbitol.[10] The latter two compounds are sugar alcohols which meet many of the criteria for sugar substitutes. Although there are problems in their utilization in a wide range of foodstuffs, they have been accepted in chewing gums. Some manufacturers of these products have used the label "Does not promote tooth decay." It is true that in animal model systems sorbitol and mannitol are markedly less cariogenic than sucrose and that dental plaque produces little acid when incubated with these polyols. Few bacteria in plaque are capable of fermenting sorbitol or mannitol. However, *S. mutans* can grow rapidly and produce acid when incubated *in vitro* with sorbitol or mannitol as its primary carbon source.[10] Ingestion of these sugar alcohols between meals could enhance the ability of *S. mutans* to compete with other oral bacteria. Within plaque, *S. mutans* has the potential to metabolize the polyols when they are supplied in the absence of other fermentable carbohydrates. Work should be performed to determine if, by supplying these compounds, we are inadvertently aiding a bacterium with documented cariogenic potential.

There is no experimental support for a direct correlation between the total intake of sugar and the incidence of caries. One of the dietary guidelines from the U.S. Department of Agriculture (USDA) and the U.S. Department of Health, Education and Welfare (DHEW) suggests a reduction in the consumption of refined and other processed sugars. With regard to dental caries, it is difficult to project any change in disease level with this decrease in consumption.

Indeed, a strong controversy exists concerning the relative cariogenicity of different carbohydrates. In general, it appears that monosaccharides and disaccharides are more cariogenic than starch, and sucrose is considered the most cariogenic sugar.[11] However, there are conflicting data on this subject and some animal studies indicate that *there is little difference in the cariogenicity of* *sucrose, glucose and fructose*[12]

It can not be too strongly emphasized that one must carefully monitor *which* surfaces and sites on the teeth are being attacked in such studies and also the *type* of bacterial flora that is present before, during and at the termination of the study. Since *S mutans* can readily transport and metabolize the predominant sugars found in the human diet, a great deal of caution should be used when attempting to evaluate studies where multiple types of fermentable carbohydrate are available. Only very low levels of sucrose may be needed to stimulate rapid decay when other fermentable carbohydrates are available in the diet. It is not unlikely that a subject with high or moderate levels of *S mutans* might develop significant caries after shifting to a diet free of sucrose if the new diet contained available carbohydrate. Clearly, there are no simple answers when discussing the cariogenicity of various fermentable carbohydrates.

Fermentable carbohydrates are eaten as an ingredient of food or are added by the user. Unfortunately, *the fermentable carbohydrate content of a foodstuff can not be used to predict its cariogenic potential*. If a food is rapidly cleared from the mouth or enhances saliva flow, its cariogenicity will be reduced. If there are components in the food which bind the carbohydrate, inhibit its metabolism, or buffer the acid which is produced, the foodstuff might be less cariogenic. These complications make it critical that methodology be developed which will allow confident statements concerning the relative cariogenic potential of a particular foodstuff. In response to this need, the Health Foundation Research Institute of the American Dental Association has initiated a collaborative program to develop suitable systems to measure the paramaters relating food to caries formation.[13] The methods being analyzed include caries formation in rat model systems, acid production by human dental plaque and *in vitro* caries models. This program could be a step forward in attempts to reduce caries formation in humans.

Caries Control
Combating Cariogenic Bacteria

Progress in caries control could be made by specifically suppressing *S. mutans* infections. Prophylaxis of a subject's teeth followed by three topical applications of an iodine solution has recently been shown to significantly reduce the levels of *S mutans* in plaque for prolonged intervals.[14] In light of the localized nature of *S mutans* infections, iodine may be a useful adjunct in attempts to prevent caries.

Bacterial infections may theoretically be controlled by allowing the host to be colonized with nonvirulent variants of the pathogenic bacteria. Mutants of *S mutans* have been obtained which produce minimal acid from carbohydrate.[15] Replacement therapy might involve supplying the mutants to subjects either during tooth eruption or after a thorough cleaning of the teeth. By filling specific ecological niches, the mutants might reduce the ability of pathogenic strains of *S mutans* to infect an individual's teeth.

It is known that the external secretions of the body, including saliva, contain secretory immunoglobulin A (sIgA) as their predominant immunoglobulin. These fluids bathe the mucous membranes of the body and their antibodies are involved in "first-line defenses," such as the coating of bacteria and inhibition of their adherence. Since colonization of teeth by *S mutans* involves production of glucan from dietary sucrose, *it is possible that inhibition by antibodies of the enzyme involved in glucan synthesis could prevent S mutans-initiated* caries. Recent excitement in vaccine development stems from the observation that ingestion of antigens results in the appearance of corresponding sIgA antibodies in saliva. It has been proposed that antibody-producing lymphoid cells are stimulated in the gut-associated lymphoid tissue. The cells then migrate through the lymphatic system and blood stream to secretory tissues in various parts of the body. In these tissues the lymphocyts differentiate and produce antibody directed to the original antigen. These ideas stimulated a study[16] where four adults ingested capsules filled with nonviable *S. mutans* for several weeks. After one week antibodies to the *S. mutans* strain could be detected in the saliva of the subjects. Immunization with a pill is an exciting concept and further studies on this problem will be of great interest.

Summary

Recent research on the bacterial and nutritional causes of human dental caries has revealed new and exciting approaches for prevention of this disease. In addition to brushing and flossing, the teeth may be protected by supplying fluoride in new ways. The diet may be modified as new methods for testing the cariogenic potential of foods are perfected. Cariogenic bacteria may be suppressed by utilization of selective agents, replacement with noncariogenic bacteria and by immunization. The multifactorial etiology of caries makes it likely that a combination of treatments will be required for complete prevention of this disease.

References

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Reprinted from **Contemporary Nutrition,** *General Mills, Inc.*, August, 1980, Volume 5, Number 8.

(*continued from page 982*)

of patients and situations, including clinical anecdotes and case histories, and emphasizes etiology, treatment, and other management recommendations. It covers the patient with organic brain syndrome, the patient who cannot adjust to organic illness and is upset by it, those who wish to have organic disease, the suicidal patient, those who refuse treatment, and the drug or alcohol dependent patient. Part III covers the use and indications for psychopharmacology and the special issue of patient competency.

The book is well written and is organized to facilitate problem solving. The part on the patient who wishes to have organic disease is particularly well done since it neatly ties up in one section many clinical entities that are so puzzlesome to the diagnostician. There is also a very useful part that spells out the risks of side effects of drug treatment in patients with specific diseases, that is, cardiac, hepatic, parkinsonism, and so forth.

There is a need for this book since it summarizes most of the other literature on the subject in one volume. It is also aimed at the mechanics of consultee-patient-consultant process rather than the liaison process. **Grace Bellotti, M.D.**

Casarett and Doull's Toxicology. The Basic Science of Poisons. Second edition. Edited by John Doull, M.D., Ph.D., Curtis D. Klassen, Ph.D., and Mary O. Amdur, Ph.D. New York, Macmillan Publishing Co., Inc., 1980. Illustrated, 778 pages. Cloth, $29.95.

The second edition of Casarett and Doull's Toxicology is an expanded, updated version of the excellent text that first appeared in 1975. That edition was a highly successful effort to present in a unified manner the multidimensional aspects which comprise modern toxicology.

The past few years have seen the rapid growth and transformation of toxicology from a hitherto relatively esoteric specialty into a basic, multidisciplinary science which is generating increasing interest in both the public and private sectors.

While all areas of toxicology are so involved, the environmental and industrial branches have been witness to a particular surge of activity, as concern over the purity, quality, and safety of our total environment has now become a paramount issue. In response to the complexity of the fundamental problems, modern toxicology draws on the analytic, chemical, biochemical, pharmacologic, and other clinical sciences. The interactions among the major branches of toxicology are increasing, thereby eliminating many of the traditional intra-disciplinary boundries and making important a broad knowledge of the entire field. Concurrently, we see the impact of the growth of regulatory toxicology and of the crucial role of toxicology itself in civil and criminal matters. The practicing toxicologist must be able to present and defend in a court of law both fact and informed opinion in a comprehensible and objective manner.

The need for basic texts which meet the complex, diversified academic and educational requirements of training programs in toxicology is obviously great. Happily, the present work can be highly recommended in this regard, not only to students at all levels, but also to those already in the field seeking information on specialties other than their own, and to all others in the medical sciences to whom toxicology is of interest or of relevance.

The book is divided into five units: General Principles of Toxicology; Systemic Toxicology; Toxic Agents; Environmental Toxicology; Applications of Toxicology. The chapters within each unit are written by specialists, and although not intended to be state of the art reviews do, in general, offer an excellent overview of the particular specialty. Each chapter is also very well referenced.

The first part of Unit I provides a review of such basic topics as toxicologic testing and evaluation, drug pharmacodynamics and pharmacokinetics, drug metabolism and factors influencing toxicological interpretation. The last three chapters are excellent surveys of the principles and mechanisms involving chemical carcinogens, genetic toxicology, and teratogens. These topics are the basis of much of the current research and controversy in several areas of toxicology and pharmacology, and the material presented here should serve as a suitable introduction to the reading of the current literature. The chapter on genetic toxicology is new and reflects the growing awareness of the role of heredity in relation to the response to drugs and chemicals.

The toxic responses that develop in such specific systems of the body as the central nervous system, liver, kidney, respiratory system, eye, blood, and reproductive system are discussed in individual chapters in Unit II (Systemic Toxicology). Each chapter incorporates the basic physiological and pharmacological information necessary for an understanding of the mechanisms of the toxic actions. In general, the effects of specific types of drugs and chemicals are presented on the basis of which agents and metabolites produce a given toxicologically induced pathological disorder, or in relation to organ structure and function. The role of organic and inorganic pollutants is well covered, particularly in the chapter on respiratory toxicology. With regard to the discussion of carbon monoxide poisoning in the chapter on the blood, I would like to see included in future editions the recent work (see Leo Goldbaum: "Is Carboxyhemoglobin Concentration the Indicator of Carbon Monoxide Toxicity?," in Legal Medicine Annual, 1976, p. 165) which provides very strong evidence for a mechanism involving the unbound, circulating carbon monoxide as being responsible for the poisoning of the cytochrome system. Overall, each chapter is an excellent source of essential information, not usually available in most textbooks, on the nature, type, and mechanism of drug and chemical induced toxicity in a given system.

Unit III (Toxic Agents) is a comprehensive survey of the respective toxicologies of such classes of compounds as pesticides; metals; solvents and vapors; radiation and radioactive materials; plastics; toxins of animal origin; and phytotoxicology (plant toxins). These chapters are most useful to anyone seeking familiarity with the basic aspects of these topics. Unit IV (Environmental Toxicology) deals with food additives and contaminants, air pollutants, and water and soil pollutants. The chapter on air pollutants is a very good introduction to the subject and should be read in conjunction with the chapter on toxic responses of the respiratory system as there is much overlapping and mutually relevant material.

The final unit, Applications of Toxicology, deals with the forensic, clinical, and occupational toxicologies and concludes with two chapters entitled regulatory toxicology and toxicology and the law. The chapter on forensic toxicology contains a concise assessment of the basic objectives, material requirements, problems of interpretation, and future trends of this field and, in addition, discusses the all-important relationship between the toxicologist and the legal system. The section on clinical toxicology provides an excellent survey of the symptoms and medical management of overdoses of a wide variety of therapeutic agents and chemicals. The discussion of occupational toxicology is a brief presentation of the basic problems of this area. The final two chapters offer an introduction to the role of the drug and chemical regulatory statutes, occupational, health and safety codes, and so forth, with which most toxicologists should be more familiar.

While keeping in mind both the general design of the book and the editors concern for avoiding an excessively large text, this reviewer would nevertheless like to see the unit on Applications of Toxicology expanded. In particular, the chapters on forensic and occupational toxicology could be enlarged to provide more comprehensive discussion of some of the more relevant theoretical and practical problems. In addition, the growing frequency of involvement of drugs other than or in combination with alcohol, and marijuana, in traffic accidents and fatalities, warrants some discussion of this increasingly alarming problem. As methodology itself has become an important factor in the crucial areas of interpretation and reliability in toxicological testing, some discussion of the scope and limitations of the complex and sophisticated techniques and analytic instrumentation currently employed is relevant.

These points aside, this book is an excellent, comprehensive, well-written text which provides essential information in all areas of this burgeoning field. It will no doubt find wide acceptance among students at both graduate and undergraduate levels, and it is highly recommended as a reference for all practitioners seeking basic up-to-date information in the specialty areas of toxicology. **Donald B. Hoffman, Ph.D.**

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Medical Meetings

Annual Meeting of the Medical Society of New Jersey

The 215th annual meeting of the Medical Society of New Jersey will be held in the Meadowlands Hilton Hotel, Secaucus, New Jersey, May 16 to 19.

Recent advances in coronary artery disease

"Recent Advances in Coronary Artery Disease" will be presented on May 21 and 22 at the Holiday Inn-Downtown, 701 East Genesee Street, Syracuse. This program meets the criteria for 11 credit hours in Category I of the Physician's Recognition Award of the American Medical Association.

Seventeenth annual course in internal medicine

The 17th annual course in internal medicine will be held July 13 to 17, YMCA Conference Center, Estes Park, Colorado.

Twenty-five (25) Category I credit hours will be given.

For further information, contact the Office of Postgraduate Medical Education, University of Colorado School of Medicine, 4200 East Ninth Avenue, Denver, Colorado 80262; telephone (303) 394-5241.

Five-day review course

A five-day review course in radiation physics and biology will be held Monday to Friday, July 13 to 17 at New York University Post-Graduate Medical School.

For further information: NYU Post-Graduate Medical School, 550 First Avenue, New York, N.Y. 10016; telephone (212) 340-5295 (24-hour service).

The kidney in systemic illness: malignancy, pregnancy, and connective tissue disease

"The Kidney in Systemic Illness: Malignancy, Pregnancy, and Connective Tissue Disease" will be the subject of a 4-day course, August 19 to 22, at The Given Institute of Pathobiology, Aspen, Colorado.

Credit is approved for 16 hours of American Medical Association Category I and 16 hours for The American Academy of Family Physicians.

For further information: Office of Postgraduate Medical Education, University of Colorado School of Medicine, 4200 East Ninth Avenue, Denver, Colorado 80262; telephone (303) 394-5241.

Sixth annual convention

The sixth Annual Convention of the American College of International Physicians, Inc., will be held August 20 to 23 at the Holiday Inn, Lake Shore Drive, Chicago, Illinois.

Category I CME credits for 12 hours will be given those attending the Annual Convention.

Further information regarding the Annual Convention can be obtained by contacting the College's office at 3030 Lake Avenue, Fort Wayne, Indiana 46805; telephone (219) 424-7414.

First International Congress on Computed Tomography and Ultrasonography

The First International Winter Congress on Computed Tomography and Ultrasonography will be sponsored by the International Body Imaging Conference and will be held February 4–14, 1982, in Kitzbuhel, Austria, with scientific sessions February 8–12, 1982. The Congress, offering Continuing Medical Education Credits, will present a correlative approach to the principles, indications, interpretations and results obtained with ultrasonography and computed tomography.

Congress registration is limited.

Address inquiries to: Secretary, Winter Congress, Annual International Body Imaging Conference, Department of Radiology, West Park Hospital, 22141 Roscoe Blvd., Canoga Park, California 91304, U.S.A.; telephone: (213) 340-0580, extension 280.

AMA to offer language study for foreign-trained physicians

The American Medical Association next July will offer an intensive one-day course on improving English pronounciation for foreign physicians.

The course is designed to assist foreign physicians now in practice in the United States in improving spoken communications with their patients.

Sessions will be held Saturday, July 18, at AMA Headquarters in Chicago. Physicians attending will receive formal credits in continuing medical education.

The course will be taught by Mrs. Elizabeth Lang, professor of English as a second language, Cuyahoga Community College, Cleveland, Ohio. Mrs. Lang has developed a study manual and cassette tapes for home study.

There will be lectures and practice on producing the sounds of general American English, intensive oral drill, and criticism of individual students, and practice in sustained discourse through reading and extemporaneous speaking.

The course is limited to 20 students. If it is oversubscribed by as many as 10, an additional course will be held on Sunday, July 19.

Further information on the course is available from Henry Mason, Division of Professional Relations, AMA, 535 N. Dearborn St., Chicago, IL 60610. Course director is Mortimer Enright, head of the AMA's Speakers and Leadership Programs Section.

Materials for inclusion in the medical meetings section must be received eight weeks prior to publication date.

(continued from page 869)

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Retrolental fibroplasia

To the Editor: An article titled "The Rise and Fall of Retrolental Fibroplasia in New York State" appeared in the New York State Journal of Medicine, May 1, 1956.* I should like to call attention to an error in the text on page 1474 under "Plan of Action" in which it is stated that "in the fall of 1953, as evidence that retrolental fibroplasia is linked to oxygen administration became fairly conclusive, the Maternity and Newborn Division staff of the New York City Department of Health during their routine visits to hospitals recommend reduction of oxygen concentrations to newborn infants."

The date stated as *fall of 1953* is definitely incorrect. The correct date should have been the *fall of 1954*. The importance of this date stems from the fact that malpractice lawyers are accepting cases of retrolental fibroplasia occurring in infants born prior to 1954 and winning awards for their clients. They have utilized this erroneous date stating that the evidence linking O_2 to retrolental fibroplasia was by then fairly conclusive.

In the interest of true justice, it is essential that this long overdue correction be noted.

No hospital or physician should be accused of malpractice or negligence in connection with liberal use of O_2 prior to the completion and publication of the results of the collaborative study by Kinsey et al.†

I have discussed this with Alfred Yankauer, M.D., the senior author, who agrees that attention should be called to this item for the record. He informed me that Harold Jacobziner, M.D., (deceased) had contributed this portion and that he had not questioned the accuracy of the stipulated date even though it appeared unlikely at the time.

Your cooperation in publishing this correction is appreciated.

JEAN PAKTER, M.D., M.P.H.
Director, Bureau of Maternity Services
and Family Planning
The City of New York
Department of Health
125 Worth Street
New York, N.Y. 10013

* Yankauer, A., Jacobziner, H., and Schneider, D. M.: The rise and fall of retrolental fibroplasia in New York State; preliminary report, New York State J. Med. 56: 1474 (1956).

† Kinsey, V., and Everett, R. L. F.: Co-op study of R. L. F. and the use of O_2, A.M.A. Arch. Ophth. 56: 481 (1956).

Coming

in

New York State

Journal of Medicine

●

Biochemistry of Collagen and Glycosaminoglycans

Pregnancy Induced Reversible Visual Field

Latter-Day Psychiatry
for the Common Man

Geriatrics

Foreign Bodies of the Esophagus
Review of Literature

Uterine Rupture and Placenta Percreta

Case Reports

Lipid Levels in Hemodialysed Diabetic Uremics

Medical Education in New York State

Laboratory Tests in Diabetes Mellitus

Medical Malpractice: How Has It Worked

Symposium: Thoracic Surgery

Temporal Arteritis: Seven Variations

Ethical Analysis of Risk-Benefits of
Recombinant DNA Research and Technology

Hypodermic Medication: An Early History

Sonographic Appearance of Emphysematous
Cholecystitis

Aspirin Induced Peptic Ulcer in Children

Ultrasonography in Diagnosis and Management

History of Medicine

●

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Material for inclusion in the medical news section must be received eight weeks prior to publication date.

City treats 5,000 handicapped children

New York City Health Commissioner Reinaldo A. Ferrer, M.D., in February reported, "Last year, 5,000 children received a wide variety of free services through the Health Department's Bureau for Handicapped Children. The Initial Diagnostic Evaluation Program provided for evaluative services to 2,800 children who were suspected of having a physical handicap. In addition, 2,200 children benefited from treatment programs.

"The Health Department has approved specific evaluation and treatment services at hospital centers in all five boroughs," explained Dr. Ferrer. "Health services can be obtained in several diagnostic categories: amputee, cancer, blood dyscrasia and leukemia, chronic asthma, hearing disorders, chronic rheumatic fever, cleft lip and palate, congenital heart disease, congenital malformations, including spina bifida, conditions requiring plastic surgery, convulsive disorders, cystic fibrosis, diabetes mellitus, eye conditions, chronic renal disease, neuromuscular conditions, including cerebral palsy and phenylketonuria (PKU).

"Many of the children who receive these services come from families who cannot afford health evaluations or the cost of rehabilitation without the Bureau's programs. It is extremely gratifying to provide these children with vital health care services," said Dr. Ferrer.

Bernard Zazula, M.D., director of the Bureau for Handicapped Children said, "In addition to providing for free evaluations, the Bureau for Handicapped Children administers the Medical Rehabilitation Program. This is a treatment program designed to deliver care for the rehabilitation of physically handicapped children under 21 years of age. To qualify for this program, however, the child and his or her family must meet certain financial eligibility requirements and have a physical handicap that is included within the medical scope of the program. The child must also be under treatment in a Health Department approved service in an approved hospital center. As part of the treatment program, funds are also available for the provision of appliances for the handicapped.

"Any parent or guardian who has received a recommendation from a physician to seek evaluation, or is diagnosed for a specific handicap, should contact the Social Service Department of their hospital center," urged Dr. Zazula. "The hospital social worker is the family's strong ally, since he or she has the information and know-how to take full advantage of the programs."

Dr. Ferrer concluded, "In addition to direct service and support activities, the Health Department's Bureau for Handicapped Children, through its Advisory Committees, consultants, and site visits, establishes and maintains a high standard of medical care for all handicapped children in the City of New York."

Annual congress on occupational medicine scheduled by AMA

Health hazards in the American workplace will be aired at the 41st Annual American Medical Association Congress on Occupational Health September 10-11 in Milwaukee.

The Congress will meet in conjunction with the Fall Seminar of the Central States Occupational Medical Association.

Program for the annual congress will stress four major aspects of occupational health – respiratory problems, pain clinics, heart problems, and arthritis.

Gershon W. Fishbein, publisher of newsletters on occupational and environmental health and genetic engineering, will be the keynote speaker for the Congress.

1981 Kodak photo contest

The contestants for the 1981 Kodak photo contests will compete for $55,000 in cash and travel prizes.

Nine physicians who are photo hobbyists won honors in the 1980 (Kodak International Newspaper Snapshot Awards) KINSA competition. Prizes received by the physicians included a $500 honor award, three special merit awards of $100 each, and six certificates of merit.

Each year Kodak sponsors the contest that is conducted at the local level by participating newspapers in the United States, Canada, and Mexico. One hundred and fifty-two newspapers received a total of 365,000 entries in 1980.

Kenneth A. Deitcher, M.D., a pediatrician from Albany, New York, won a $100 special merit award in the Kodak International Newspaper Snapshot Award. Each physician also received a Kodak Centennial commemorative plate with an 1980 picture-taking scene in the center as part of the company's 100th birthday celebration in 1980.

The competition has been held for 42 years and is open to all amateurs. The participating newspapers conduct their own contest during the summer. Winning entries are forwarded to the final round of competition in Rochester, New York, where a panel of judges select the international winners.

In 1981, contestants will compete for $55,000 in cash and travel prizes.

Anyone who wants to enter KINSA in 1981 and does not know a participating newspaper can write for details to Contest Activities Section, Corporate Communications, Eastman Kodak Company, Rochester, N.Y. 14650.

New $25,000 Bristol-Myers award to cite outstanding achievement in nutrition research

An annual $25,000 cash award to recognize outstanding contributions by a scientist to progress in nutrition research was announced on March 2 by Bristol-Myers Company and its Mead Johnson & Company subsidiary.

The first annual Bristol-Myers Award for Distinguished Achievement in Nutrition Research will be presented on November 9 at an award dinner in Washington, D.C.

A nomination may be made by any officer of a medical school, free-standing hospital, or nutrition research center. Each nomination should include: (1) a biographical sketch of the nominee, (2) a list of major publications, (3) an explanation of the work in applied or basic research that has led directly to significant improvements in understanding, prevention, diagnosis, treatment, and/or technology in the clinical aspects of human nutrition, and (4) an evaluation by the nominator as to specific accomplishments of the nominee (limited to 1,000 words).

Eight copies of the nomination should be furnished. Eight copies of a 150-word abstract, typed on the printed nomination form, should accompany each nomination.

Reprints may be included (eight copies of each). Books shall not be included. However, a short abstract is acceptable.

The nomination and supporting documents must be received no later than May 29, 1981.

Recipients are chosen by majority vote of the Selection Committee in the summer of each award year. All Committee members are required to participate in the selection. Announcement of the award recipient will be made during the fall of the award year at the annual Bristol-Myers Symposium on Nutrition Research.

For further information please send nominations and supporting documents to Bristol-Myers Award for Distinguished Achievement in Nutrition Research, 345 Park Avenue, Room 43-30, New York, New York 10154. For inquiries or requests for additional nomination forms, please write to Secretary, Award Committee at the address above, or call (212) 644-3894 or (212) 644-4526.

Playing bridge to better health!

"The game of bridge, for years considered simply either a game of skill by the American Contract Bridge League, or as a pleasurable home-style pastime in social circles, has now been found to have a third, and in fact, more important use as therapy toward better health," says a New York physician-researcher. Abner I. Weisman, M.D., as a result of his recent studies, is revealing a new therapeutic aid which he has termed *Creative Bridge*. He states that "This new approach should interest psychiatrists, psychologists, social workers, and others who are concerned with serving the lonely, "blue," and justifiably-depressed, particularly senior citizens."

Dr. Weisman, formerly a professor of gynecology at New York Medical College and founder of the Museum of Ancient Medicine of the Americas, has recently retired from practice and is devoting his life to helping senior adults. Overcoming the shock of his own cancer by playing bridge daily, hour after hour, he was able to escape reality and eventually regain a useful and productive life.

Realizing that bridge had been so valuable to him and having observed that older people turned to bridge for diversion, friendships and enjoyment, he decided to research bridge and its strange lure for seniors. He sent a detailed questionnaire to 200 senior bridge-players. The results were astonishing! Ninety-four percent said that it had made them many friends. Some 66 percent stated that it had actually helped them therapeutically—"Forgot my troubles." "Helped me out of depression." "Forgot pain." "Forced me out of the house."

The results of the survey were released at the *First Bridge Seminar on Geropsychology* held at the 92nd Street YM-YWHA in 1979. The panelists expounded three basic pitfalls to bridge as therapy: (1) The possible frustration suffered by a nonaggressive beginner; (2) the tension produced by an exacting partner; and (3) the danger of prolonged sedentary periods without a change in posture.

As a result, Dr. Weisman decided to develop a new type of bridge game involving in it features which would overcome the three objections. It employs a sympathetic, understanding, trained instructor; a selection of partners by personality makeup; a lighter game using laughter and fun in place of rigidity and sternness; time for movement or activity and other innovative factors.

4TH ANNUAL SYMPOSIUM

NUCLEAR CARDIOLOGY FOR THE PRACTICING PHYSICIAN

JULY 5-9, 1981

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This exciting 3½ day program will have one day devoted to techniques in Nuclear Cardiology and 2½ days for clinical applications. The topics will include:

- Applications of Radionuclide Ventriculography
- Cardiovascular Nuclear Medicine – Office Practice
- Cardiac Rehabilitation
- Tomographic Cardiac Imaging
- Equipment Selection

The program meets the criteria for 28.5 credit hours in Category 1 of the Physicians Recognition Award of the AMA. The guest faculty includes: P. O. Alderson, J. S. Borer, G. W. Hamilton, R. H. Jones, W. O'Neill, R. W. Parkey, H. W. Strauss, J. H. Thrall, and H. N. Wagner, Jr. Reservation deadline is May 15, 1981. For further information contact Jagmeet S. Soin, M.D., F.A.C.C., Program Director, Division of Nuclear Medicine, The Medical College of Wisconsin, 8700 W. Wisconsin Avenue, Milwaukee, WI 53226, or call (414) 257-5968.

His classes have become so pleased with the new kind of game that Dr. Weisman has changed his brownstone home to a Senior Center; he has organized a senior bridge club for beginners and teaches his free-style laughter-filled, pressure-free recreational therapy to an increasing number of seniors as each week goes by. Having begun with one class of 20 with weekly sessions, there are now three weekly classes scheduled for the Spring courses.

Those interested should telephone for an appointment (212-722-5300).

Here and there

Elected: J. William Fielding, M.D., New York City, elected president of the American Orthopaedic Foot Society . . . Norbert J. Roberts, M.D., medical director of the Exxon Corporation, elected president of The New York Academy of Medicine.

Promoted: Francis J. Hailey, M.D., has been promoted to director, clinical research in the medical affairs department of Norwich-Eaton Pharmaceuticals.

SCHEDULE OF SCIENTIFIC MEETINGS

1981 ANNUAL CME ASSEMBLY

Medical Society of the State of New York
Niagara Falls Convention Center

FRIDAY, JUNE 26

Morning: Cardiovascular Diseases (Meeting Room 1)
Obstetrics & Gynecology (Theatre)
Gastroenterology, Colon & Rectal Surgery (Meeting Room 3)
Cancer Update 1981—General Session (Meeting Room 4)
Chest Diseases (Meeting Room 2)

Afternoon: Occupational Medicine, and Medical Legal & Workers' Compensation matters (Meeting Room 2)
Obstetrics & Gynecology (Theatre)
Gastroenterology, Colon & Rectal Surgery (Meeting Room 3)
Alcohol & the Unborn—General Session (Meeting Room 1)
Preventive Medicine (Meeting Room 4)
Otolaryngology & Maxillofacial Surgery (Meeting Room 6)
Dermatology & Syphilology (Niagara Hilton, Room 234)

SATURDAY, JUNE 27

Morning: Ophthalmology (Meeting Room 3)
Internal Medicine (Theatre)
Surgery, Urology & Anesthesiology (Meeting Room 6)
Pathology, Radiology & Orthopedic Surgery (Meeting Room 4)
Neurosurgery (Meeting Room 1)

Afternoon: Opthalmology (Meeting Room 3)
Internal Medicine (Theatre)
Computer Application to Office & Hospital Practice General Session (Meeting Room 1)
Cost Containment (Meeting Room 2)
Albion O. Bernstein, M.D. Award Lecture—General Session (Theatre)

SUNDAY, JUNE 28

Morning: Allergy & Immunology (Meeting Room 3)
School Health & Pediatrics (Meeting Room 4)
Psychiatry & Family and General Practice (Theatre)
Plastic, Reconstructive & Maxillofacial Surgery and
Physical Medicine & Rehabilitation, and Orthopedics (Meeting Room 6)
Neurology (Meeting Room 1)

CME CREDITS: Each program will be eligible for CME Category I Credits on an hour-for-hour basis.

SCIENTIFIC & TECHNICAL EXHIBITS

BASIC CARDIAC LIFE SUPPORT (BCLS) COURSE is open to MSSNY members only, Friday & Saturday, 8:30 a.m.–4:30 p.m. (Lower Level)

THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

1981 Annual CME Assembly

Friday, June 26—Sunday, June 28

All physicians are invited to attend our Annual Continuing Medical Education Program to be held in Niagara Falls, New York. You will have the opportunity to obtain Category I CME Credits during 2½ days of outstanding General Sessions, Symposia, and Panel Discussions.

As in the past, there will be Scientific and Technical Exhibits to help the physician to become acquainted with the latest research techniques, and to learn about new products and services that will help the physician provide better medical care.

Niagara Falls
International Convention Center

NIAGARA FALLS INTERNATIONAL CONVENTION CENTER

The Convention Center is centrally located in downtown Niagara Falls just 1800 feet from the Falls and the Rain-Bow Bridge to Canada. The CME meetings and Exhibits will be located in the Convention Center. Ample on-site outdoor parking is provided at a special daily charge for convention participants.

THE NIAGARA HILTON

Our headquarters hotel, The Niagara Hilton, a few steps away from the Convention Center and a short stroll to the Falls, offers the ultimate in comfortable hotel living. Three different restaurants await you. Sidney's with its romantic atmosphere serves breakfast, lunch and dinner and is noted for its cuisine. Captain Jack's Nautical Nightclub is ideal for a casual drink or nightly dancing. For quiet relaxing atmosphere, the Casbah Cocktail Lounge offers cocktails before and after dinner. You can enjoy the Palm Court and indoor pool with sliding glass sunroof. Ample parking is provided under covered ramp connected to hotel. Hotel guest services include indoor heated pool, exercise room, saunas, beauty salon, gift shops, post office, pharmacy, and art gallery.

HOW TO GET THERE

The International Convention Center and the Niagara Hilton are located just 25 miles and 40 minutes from Greater Buffalo International Airport which is serviced by Allegheny, Eastern, United and American Airlines. The airport bus is $5.75. Amtrak rail service is available through Buffalo about 21 miles south; taxi about $20.00–$23.00. By car, Niagara Falls is about 450 miles from New York City via the New York State Thruway.

WHAT TO SEE—HIGHLIGHTS

The Falls.

Just a short walk from the Niagara Hilton, the Falls is one of the top attractions of the world. At night the Falls are illuminated by colored lights which create a spectacular sight.

Prospect Point & Observation Tower.

At Prospect Point, an elevator in the observation tower takes visitors to the base of the Falls or high above them.

CLIP & MAIL TO:

Rooms Department Manager
Niagara Hilton, Third & Mall
Niagara Falls, New York 14303

Phone: 716-285-3361

MEDICAL SOCIETY OF THE STATE OF NEW YORK • June 26–28, 1981

Please circle rate requested:

Single: $45, $50, $55, $60, $65 (suites available on request)
Double: $62, $67, $72, $77, $82

Name____________________
PLEASE PRINT

Address____________________

____________________Zip code________

Name (2nd Party)____________________

Arrival Date:________ Check-in time: 2:00 p.m.

Departure Date:________ Check-out time: 12 Noon

Arriving by: _____Auto; _____Plane; _____Other

Please hold my reservation for (check one):

_____6:00 p.m. arrival
_____Guaranteed by first night's deposit
_____Guaranteed by American Express Credit card
Card number________
Expiration date:________

Reservations must be received by JUNE 4, 1981. Reservations will be accepted after this date on an if-available basis. If room at requested rate is not available, one at nearest available rate will be reserved. If reservations are made by telephone, you must identify the Medical Society meeting for the special rate to apply.

Maid of the Mist.
Departing from the foot of the Observation Tower & Prospect Point, the boats pass directly in front of the American and Bridal Veil Falls, and enter into the Horseshoe Basin Boats depart about every 15 minutes and the trip lasts one-half hour.

Goat Island.
Dividing the Niagara River into the Horseshoe and American Falls, the island provides dramatic views of the Falls.

Cave of the Winds.
Guided tour to the base of the Bridal Veil Falls.

Niagara Viewmobile.
A guided mini-train excursion of Prospect Park and Goat Island.

Winter Garden.
A tropical park in a greenhouse-like structure on Rainbow Mall near the Niagara Hilton. On display are plants of 225 different varieties including 40 ft. high palms.

Geological Museum.
Contains the geological history of the Falls covering 500 million years.

Niagara Power Project.
Located 4½ miles north of the Falls, it has displays, exhibits, motion pictures, plus an observation deck overlooking the Niagara Gorge and River.

Artpark.
A 200 acre park located 12 miles from Niagara Falls at Lewiston. It includes a theatre, and artists and craftsmen working daily from 11 a.m. to 5 p.m.

Lewiston, N.Y.
A historic village noted for its portage.

Lower Niagara Cruises.
Two hour cruises on the Niagara River from Fort Niagara.

Old Fort Niagara.
Relive nearly 300 years of history under three flags in this well-preserved Fort.

BUFFALO. Albright-Knox Art Gallery.
Housed in a beautiful neoclassical, ionic columned building, the gallery is among the top ten museums of modern art in America. On view are major paintings by deKoonig, Rothko, Pollock, Kline, Motherwell, Frankenthaler, Stella, Jasper Johns, Rauschenberg & Still. And sculptures by David Smith and David Hare.

HOTEL RESERVATIONS

Physicians must make their own hotel reservations no later than June 4, 1981 in order to take advantage of the special rates. If making hotel reservations by telephone, please mention that you are attending the Medical Society CME Assembly.

SPECIAL EVENTS

MSSNY RECEPTION & DINNER.
All physicians and their guests are welcome to attend a reception and dinner to be held at the Niagara Hilton on Saturday, June 27th. An outstanding guest speaker is scheduled to appear. The reception will start at 7:00 p.m. and dinner at 8:00 p.m. Cost: $30.00.

GOLF TOURNAMENT.
A golf tournament will be held all day Thursday, June

(continued on following page)

PRE-REGISTRATION FORM
1981 Annual CME Assembly, June 26–28
Niagara Falls International Convention Center

(please print)

Name ____
(last) (first) (initial)

Address ____

City & State ______________________________ Zip ____________

Member of MSSNY: Yes ________ No ________ Specialty ____________________

Note: There is no registration fee, except for the special course in Basic Cardiac Life Support.

Thursday Golf Tournament—Green Fees & Cart: ________tickets @ $25.00. Total____________

Saturday Reception & Dinner ________tickets @ $30.00. Total____________

Friday or Saturday Special Course in Basic Cardiac Life Support.

Limited to members only. $50.00. Total____________

Total enclosed $____________

Please make checks payable to: Medical Society of the State of New York, clip and mail to Division of Advertising & Meeting Services Medical Society of the State of New York, 420 Lakeville Rd., Lake Success, New York 11042.

SPECIAL EVENTS—cont'd.

25th at the Ransom Oaks Golf Course. The cost for green fees and cart will be $25.00. Reservations are limited to 60 golfers.

SHAW FESTIVAL

The New York State Neurosurgical Society members will attend a Shaw Festival at Niagara-on-the-Lake, Ontario on Friday, June 26. The bus will depart from the Niagara Hilton at 7:15 p.m.

SPECIAL COURSES

BASIC CARDIAC LIFE SUPPORT

This course will take place on Friday and Saturday from 8:30 a.m. to 4:30 p.m., and is limited to 24 physician members of MSSNY. The registration fee is $50.00.

SPECIAL SESSION

1980 ALBION O. BERNSTEIN, M.D. AWARD.

On Saturday, June 27th, the award will be presented by Ralph M. Schwartz, M.D., President, Medical Society of the State of New York, to Georges Kohler, Ph.D. of the Basel Institute for Immunology in Switzerland for his outstanding achievement in immunology. Dr. Kohler will address the special session.

Your identification badge and tickets will be held at the MSSNY Registration Desk located in the Niagara Falls Convention Center.

INTERMISSIONS

There will be morning and afternoon intermissions for coff and to allow time to visit the exhibits.

MEETING HOURS

Friday, June 26:
8:00 a.m.–12 Noon
1:00 p.m. & 2:00 p.m.–5:00 p.m.

Saturday, June 27:
8:00 a.m.–12 Noon
1:00 p.m.–4:00 p.m.
4:30 p.m.–5:30 p.m.

Sunday, June 28:
8:30 a.m.–1:00 p.m.

●

All Meetings & Exhibits will close at 1:00 p.m. on Sunday.

The Niagara Hilton's beautiful Palm Court heated pool

Medical Society of the State of New York
Annual CME Assembly

●

All physicians and their guests are invited to an evening of gourmet dining and dancing to the beautiful music of Linc Lackey and his orchestra. Come join the festivities.

Saturday, June 27, 1981

Niagara Hilton *Rainbow Ballroom*

Reception: 7:00 p.m. *Dinner: 8:00 p.m.*

Per Person: $30.00

●

A reservation form appears in this issue of the Journal.

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RETIRED PATHOLOGIST wants part time work. Reply Dept. 164, NYSJM.

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MEDICAL OPHTHALMOLOGY: 43 y/o American Board Certified desires isfactory position in established practice. Will consider all locations. Curric Vitae on request. Reply Dept. 180, c/o NYSJM.

PRACTICES AVAILABLE

24 YEAR ESTABLISHED FAMILY PRACTICE, home-office combina separate entrances, 2 story building, office fully equipped, own parking lo tiring, will introduce, Syracuse, N. Y. Reply Dept. 166, c/o NYSJM.

GROWING GENERAL PRACTICE for sale in a country side community 60 from New York City. Excellent office location, fully furnished and equip Close to two hospitals. Lease financing can be arranged. Reply Dept. 17 NYSJM.

NEW YORK CITY—SURGERY AND WORKMEN'S Compensation, gross 6 figures/year: Suffolk County—ENT, gross high 6 figures/year: O County—General Practice, P/T, gross high 5 figures/year. Additional 20 m practices, all specialties in New York, New Jersey, Conn. and PA. Me Practices Transfer, 42-27 Union Street, Flushing, N.Y. (212) 445-9797.

FAMILY PRACTICE—NORTHEAST PENNSYLVANIA. Excellent based practice available immediately for board certified/eligible physician. two fine hospitals and multispecialty clinic. Quiet, scenic, sports and family Liberal incentives offered by community inc. housing with office attached. CV to Medical Placement Consultants, Box 14, Athens, PA—call (717) 9014.

WILLIAMSBURG, BROOKLYN—Well established 30 year solo internal med practice and gas heated building with two additional residential apartmen sale. Office fully equipped, 200 MA Picker X-ray, ECG. etc.—suitable also practice. P.O. Box 69, Midwood Station, Brooklyn, N.Y. 11230.

PHYSICIANS—MOVING OR RETIRING? Why let years of work go warded? Get the most from the sale of your practice. Our established phys search firm now services physicians with medical practice brokerage. valuable time as we honestly and accurately appraise the value of your pra Save money by using our expertise in the field to take the bother out of s your practice. For more information call us in complete confidence: Du Medical Search (716) 852-5911, or write suite 600, 268 Main Street, Buffalo, York 14202.

ESTABLISHED OPHTHALMOLOGICAL PRACTICE in Bay Ridge, Bro for sale. For information call (516) 742-3113.

ESTABLISHED PEDIATRIC PRACTICE FOR SALE in western Suffolk. information call (516) 273-3400.

DOCTOR RETIRING JUNE 30, 1981 after 43 years of active, solo family pr at Lewiston, New York. Just walk in and take over. All records and equip intact. If interested, contact Henry R. Alderman, M.D., 700 Center S Lewiston, N.Y., 14092 or Phone (716) 754-7081.

ACTICES WANTED

HTHALMOLOGIST, BOARD CERTIFIED desires to purchase practice in
e New York City or suburban area Confidence Maintained. Please contact
ept. 168, c/o NYSJM

ERNIST, 30 YEAR OLD, ABIM certified, academically trained, seeks private
ractice opportunity in Manhattan area Reply Dept. 179, c/o NYSJM

UIPMENT

HTHALMOLOGICAL EQUIPMENT for sale. Call (212) 744 1170.

SCELLANEOUS

ATTORNEY & PENSION PLAN SPECIALIST Former IRS Pension Plan
ecialist and Revenue Agent Professional Incorporation, Pension and Profit
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ings, actuarial certification and employee statements of participation – No
surance Required – References upon request –Jack Wachstock, 299 Broadway,
w York, N.Y. (212) 349-2248.

ORNEY SPECIALIZING IN MEDICAL LEGAL problems of a regulatory
ture and legal aspects of incorporation. Ralph Hochstein, 747 Third Ave.,
Y.C. 10017; (212) 752-3700.

LICATIONS AND TECHNIQUES OF ENDOSCOPY: 1981. The New York
ciety of Gastrointestinal Endoscopy will hold its annual course on November
and 20, 1981 at the Grand Hyatt Hotel in New York. Emphasis will be on
ent advances in diagnostic and therapeutic endoscopy of the pancreatico-
iary and hollow visceral systems. Relationships between endoscopy, clinical
ence and angiography will be stressed. Course faculty includes Drs. Sherlock,
inya, Waye, Winawer and Zimmon. The course is accredited for 11 hours of
IA Category 1 credit. Course directors are Drs. Lawrence Brandt and Kevin
rrisey. For information contact Dr. Lawrence Brandt, Montefiore Hospital
l Medical Center, 111 East 210th Street, Bronx, New York 10467.

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SICIAN, EMERGENCY MEDICINE--Newly established 654 acute and long
n bed, medical school affiliated, multi-hospital system in New York's Southern
r is recruiting full time physician, Emergency Medicine. Hospital actively
king Emergency Medicine Residency. Physician will have teaching respon-
lity in present residency program. Must have three years post graduate
ning and Emergency Department experience. Salary negotiable. Com-
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lam, M.D., Director Emergency Medicine, Wilson Memorial Hospital, 33-57
rison Street, Johnson City, New York 13790. An Equal Opportunity Em-
ver. Phone (607) 773-6371.

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e, throughout New York State. Excellent income, paid professional liability
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erience in Neonatology or Allergy preferred) to join Board Certified Pedia-
ans. Full partnership after one year. Nice, progressive college town in the
ger Lakes Region, New York State. Send Resume to Dept. 157, c/o
SJM.

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nore details send C.V. to: John F. Spring, M.D., Box 156, Southview Station,
hamton, N.Y. 13903.

EON: BOARD CERTIFIED OR ELIGIBLE—to join surgeon, pediatrician
OB-GYN. Full time hospital based group in attractive rural community.
tiable salary; good fringe benefits. Contact T. E. Lavell, M.D., 1 Titus Place,
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All specialties, especially internal medicine with subspecialty in cardiology or pulmonary disease; orthopedic surgery and psychiatry.

State agency in NEW YORK CITY AREA engaged in adjudication of disability claims.

Must be board certified or eligible for certification or possess workers compensation specialty rating.

Must be able to work minimum of 3 hours per day, 5 days per week.

Please send curriculum vitae
to: Director of
Bureau of Personnel Management

N.Y.S. DEPT. OF
SOCIAL SERVICES
Ten Eyck Office Building
40 North Pearl St., Albany, N Y 12243
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PHYSICIANS WANTED—CONT'D

ASSOCIATE FOR ESTABLISHED GENERAL PRACTICE in Flatbush. To lead to a partnership in a short time. Please forward resume to Dept. 173, c/o NYSJM.

INTERNIST– Two Board Certified internists seek third internist BE/BC to join active hospital-based practice July 1, 1981. Attractive salary/fringe benefits with full partnership after one year. Rural Western New York setting with proximity to major urban centers. Call (716) 786–5760.

INDUSTRIAL PHYSICIAN: Albany, N.Y. area. Interested in treatment of injuries, preemployment examinations, and evaluation of disabilities. Knowledge of disability evaluation of Workers Compensation claims is essential. Pension plan and excellent fringe benefits. Well established professional corporation with shareholder acquisition or investment potential. Salary negotiable. Reply Dept. 181, c/o NYSJM.

FELLOWSHIP IN NEUROSURGERY. Affirm action employer m/f/hc For ward resume to Dr. Joseph A Epstein, Attending In Charge, Neurosurgery, Long Island Jewish-Hillside Medical Center, New Hyde Park, N.Y. 11042.

NEEMA EMERGENCY MEDICAL
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Emergency Medicine Positions—available with emergency physician group in PA, NY, NJ, VA, WVA, MD and throughout New England, the Southeast and the Midwest, including all suburban, rural and metropolitan areas. Fee-for-service with minimum guarantee provided. Malpractice paid Practice credits toward board certification. Physician department directors also desired. Please send resume to: NEEMA Emergency Medical, Suite 400, 399 Market Street, Phila., PA 19106 or phone 215-925-3511 in PA. or 800-523-0776 outside PA.

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FOR THROAT

Use ALKALOL as a gargle for cleaning mucus as a post operative treatment. Radiologists find it efficacious following deep therapy treatment of CA of the throat particularly for its soothing, mucus solvent and deodorant qualities.

Sample upon Request.

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COUNTRY AREA 10 MINUTES FROM ALBANY and Troy. Large office remodelled to suit tenant. Available in Pharmacy Building—main street of town—Contact Mr. Cesta, Cesta's Pharmacy, Main Street, Averill Park, N. Y. 12018. (518) 674-5524.

OUTSTANDING SUMMER CAMP FOR CHILDREN needs doctor for 4-week or 8-week period between June 26th and August 20th. Excellent family accommodations and 2 RNs are on the medical staff. Located upstate N.Y. For particulars call (212) 772-2313.

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SARATOGA SPRINGS, N.Y., Lake front lot. Large wooded lot with 273 foot lake frontage on pristine mountain lake just 20 minutes from Saratoga Springs. Total privacy yet convenient to Performing Arts, Race Track, etc. $19,500. Ask for Rey Wells, days (518) 785-4141, evenings (518) 899-4844.

DOCTORS OFFICE SPECIALIST: FOR PROMPT, EFFICIENT SERVICE in renting or subletting a Manhattan, NYC professional office, or to buy, sell or appraise a co-op, contact Nathan H. Friedman, V.P., Douglas Elliman-Gibbons & Ives, Inc., 575 Madison Ave., N.Y., N.Y. (212) 832-5571.

MANHATTAN'S EAST SIDE, 133 EAST 73RD ST., N.Y.C. LEXINGTON Professional Center, Inc. Part time & full time medical, dental, psychiatric office suites. Furnished & equipped. 24 hour answering service; receptionist. Mail service; cleaning. X-ray & clinical laboratory on premises. No leases necessary. Rent by the hour or full-time. (212) 861-9000

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CONDOMINIUM CONVERSION. YOUR PROFIT potential in converting Medical/Professional Building into a commercial condominium is excel Learn more about this exciting concept. Contact; Paul Gellert, Gelco R Corp., 595 Fifth Avenue, New York, NY 10017 (212) 223-1130.

OFFICES FOR RENT—one small and one larger suite available now in a medical building in Freeport. Good location near hospitals. Air conditio Ample parking. Reasonable rental. No steps. Suitable for any kind of pra Referrals. Phone (516) 378-1414 or (516) 379-5005.

SENECA LAKE, NEW YORK: an elegant property known for its grace, be and seclusion. Natural swimming pool at bottom of 90 ft. water fall. Larg preserved 16 room Victorian house on 35 acres with 2000 ft of lake front— fireplaces, aluminum storms and siding, full basement. Two story gambrel All amenities. Has to be seen. Owner financing. $350,000. Phone 243-8584.

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21.5 HILLSIDE ACRES: 92 miles from Manhattan; 13 miles from Amtr Rhinecliff; 2.5 miles from Taconic Parkway. Lovely house site with vi Catskills. Dug pond site. Isolated yet 2 towns within 15 minute drive. Dr. Curran (914) 758-6135.

PROFESSIONAL HOME AND OFFICE. Centrally located in Dutchess Co Nine room elegant Colonial home with exquisite interior and exterior manship plus separate entrance to doctor's 5 room suite. Near two majo pitals. For further information call Century 21 Hudson Valley Realty. 454-6334.

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BROOKVILLE—OYSTER BAY 5 bedroom colonial, 2½ baths with C/A, wing, large playroom and maid's room with bath. Finished basement, Re deck, brick patio, ⅓ acre treed plot, community pool. 30 miles from Manh move-in condition, many extras. $180,000. (516) 922-6561.

PROFESSIONAL OPPORTUNITY IN POUGHKEEPSIE. Large stately home with physician's office, excellent condition. Many possibilities fo vidual or group practice. Owner financing available. Option to take on ex general practice. Asking $125,000. For information call Ann Benary, Real Estate days (914) 462-0700, evenings (914) 297-9365.

32,000 SQ. FT. MEDICAL CENTER for sale—small and large shopping c for sale. Ask for Mr. Penn—Holiday Real Estate (212) 698-7300.

what goes on IN CONTINUING MEDICAL EDUCATION

NEW YORK STATE JUNE 1981

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Please send information to the Editor, WHAT GOES ON,
420 Lakeville Road, Lake Success, New York 11042
Telephone 516-488-6100.

Compiled by the Division of Scientific Activities
George J. Lawrence, Jr., M.D., Director
Mrs. Elizabeth H. Daepp, Editor
Philip Keating, Business Manager

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NEW YORK CITY

Saint Mary's Hospital of Brooklyn

170 Buffalo Avenue
Brooklyn
June 10, 8:00 a.m.–9:00 a.m.
LEGIONNAIRE DISEASE
Stephen J. Seligman, M.D.
NO FEE CREDIT: AMA Cat. 1
June 25, 12 noon–1:00 p.m., Thursday
RECENT DEVELOPMENTS IN CHEMOTHERAPEUTIC AGENTS
Premlata Wadhera, M.D.
NO FEE CREDIT: AMA Cat. 1
For further information contact St. Mary's Hospital, Division of Catholic Medical Center, Department of Medicine, 170 Buffalo Avenue, Brooklyn 11213. Tel: 212/774-3600 ext. 2044.

The New York State Society of Anesthesiologists, Inc. sponsored by Montefiore Hospital and Medical Center, Albert Einstein College of Medicine

* Millard Fillmore Hospital
Buffalo
June 15–16
NEUROANESTHESIA UPDATE
CREDIT: AMA Cat. 1 (3 hrs.)
For further information contact The New York State Society of Anesthesiologists, Inc., 30 East 42nd Street, Suite 1501, New York 10017. Tel: 212/867-7140.

The New York State Society of Anesthesiologists, Inc.

30 East 42nd Street
* New York University Medical Center
June 18–19
ADVANCES IN ANESTHESIA FOR THE CARDIAC PATIENT
CREDIT: AMA Cat. 1 (12 hrs.)
For further information contact The New York State Society for Anesthesiologists, Inc., 30 East 42nd Street, Suite 1501, New York 10017. Tel: 212/867-7140.

Institute of Continuing Biomedical Education

222 East 19th Street
June 1–August 21
COMPREHENSIVE PROGRAM IN BASIC MEDICAL AND CLINICAL SCIENCES:
FOR ECFMG, FLEX, VQE, MSKP
For further information contact Dr. Natale Colosi, Dean, 222 East 19th Street, New York 10003. Tel: 212/677-4728.

The Page and William Black Postgraduate School of Medicine of the Mount Sinai School of Medicine (CUNY)

* The Mount Sinai Medical Center
One Gustave L. Levy Place
June 14–18, 9:00 a.m.–6:00 p.m., Sunday–Thursday
RHINOPLASTY AND OTOPLASTY
Sidney S. Feuerstein, M.D.
FEE: $600. CREDIT: AMA Cat. 1 (40 hrs.)
June 18–19, Thursday and Friday
S. B. GUSBERG SEMINAR ON REPRODUCTIVE IMMUNOLOGY
Norbert Gleicher, M.D.
FEE: $250. including lunch CREDIT: AMA Cat. 1 (14 hrs.)
June 19–20, 9:00 a.m.–6:00 p.m., Friday and Saturday
FACIAL PLASTIC SURGERY
William Lawson, M.D.
FEE: $300. CREDIT: AMA Cat. 1 (15 hrs.)
June 24–26, 9:00 a.m.–5:00 p.m., Wednesday–Friday
OPHTHALMIC PLASTIC SURGERY
Virginia Lubkin, M.D.
FEE: $250. CREDIT: AMA Cat. 1 (19½ hrs.)
For further information contact The Mount Sinai Medical Center, One Gustave L. Levy Place, New York 10029. Tel: 212/650-6737.

State University of New York Downstate Medical Center in conjunction with District I of The New York State Society of Anesthesiologists, Inc.

450 Clarkson Avenue
Brooklyn
* Lecture Hall #1, First Floor
June 2, 8:00–9:00 p.m., Tuesday
VISITING PROFESSOR PROGRAM DEPARTMENT OF ANESTHESIOLOGY
ANESTHESIA FOR PATIENTS WITH CORONARY HEART DISEASE
John H. Tinker, M.D.
* Lecture Hall #6, Sixth Floor
June 3, 4:00–5:00 p.m., Wednesday
CARDIOVASCULAR PHYSIOLOGY FOR ANESTHESIOLOGISTS INCLUDING A DESCRIPTION OF THE DYNAMIC SPATIAL RECONSTRUCTOR
John H. Tinker, M.D.
* Alumni Memorial Lecture Hall, Second Floor
DEPARTMENT OF ANESTHESIOLOGY:
GRAND ROUNDS: Tuesdays 5:00–6:00 p.m.
June 9, 16, 23, 30
CASE PRESENTATIONS
For further information contact State University of New York Downstate Medical Center, Department of Anesthesiology, 450 Clarkson Avenue, Brooklyn 11203. Tel: 212/270-1000.

State University of New York Downstate Medical Center–Kings County Hospital of Brooklyn, New York

450 Clarkson Avenue
Brooklyn
June 11, 9:00 a.m.
OPHTHALMOLOGY ALUMNI DAY
THE TENTH ANNUAL J. EUGENE CHALFIN MEMORIAL LECTURE
Arthur H. Wolintz, M.D.
NO FEE
For further information write to Mrs. Rita Belsky, State University of New York, Downstate Medical Center, Box 58, 450 Clarkson Avenue, Brooklyn 11203.

New York University Post-Graduate Medical School

550 First Avenue
* Schwartz Lecture Hall
401 East 30th Street
June 1–4, 8:00 a.m.–1:30 p.m., Monday–Thursday
SELECTED TOPICS IN PEDIATRIC & ADOLESCENT MEDICINE 1981
FEE: $320. CREDIT: AMA Cat. 1 (22 hrs.)
* Alumni Hall
550 First Avenue
June 18–19, Thursday and Friday
ADVANCES IN ANESTHESIA FOR THE CARDIAC PATIENT
FEE: $200. CREDIT: AMA Cat. 1 (12 hrs.)

For further information contact New York University, Post-Graduate Medical School, 550 First Avenue, New York 10016. Tel: 212/340-5295.

New York University Post-Graduate Medical School & Bellevue Hospital Center

550 First Avenue
* Schwartz Lecture Hall—Classroom F.
401 East 30th Street
June 13, Saturday
IMMUNIZATION UPDATE: 1981 MANAGEMENT OF VIRAL DISEASES: SPECIAL PROBLEMS
Anne A. Gershon, M.D., Saul Krugman, M.D.
FEE: $35. CREDIT: AMA Cat. 1 (4 hrs.)
* Schwartz Lecture Hall
June 22–25, Monday–Thursday
EMERGENCY MEDICINE 1981
FEE: $485. CREDIT: AMA Cat. 1 (26 hrs.)
AAFP 24¼ prescribed hours
The American College of Emergency Physicians Cat. 1 (26 hrs.)

For further information contact Registration Office, NYU Post-Graduate Medical School, 550 First Avenue, New York 10016. Tel: 212/340/5295.

Westchester Square Hospital in collaboration with Albert Einstein College of Medicine

1625 St. Peters Avenue
Bronx
* Conference Room
June 3, 4–5:30 p.m., Wednesday
MYOCARDIAL INFARCTION: MANAGEMENT AND REHABILITATION
Martin N. Cohen, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)
June 17, 4–5:30 p.m., Wednesday
INFLAMMATORY BOWEL DISEASE
Kiron M. Das, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)

Doctors Hospital

170 East End Avenue at 87th Street
June 4, 4:15 p.m., Thursday
CONTRACEPTION—1981
Gerson Weiss, M.D.
NO FEE CREDIT: AMA Cat. 1 (1½ hrs.)

For further information contact Clifford L. Spingarn, M.D., Chairman, Committee on Continuing Medical Education, Doctors Hospital, 170 East End Avenue, New York 10028. Tel: 212/535-3000 ext. 118.

Albert Einstein College of Medicine of Yeshiva University Co-sponsored by the National Cancer Institute (NSABP Cancer Control Network) and the American Cancer Society

1300 Morris Park Avenue
Bronx
* Van Etten Hospital, Room 523
4:00–5:30 p.m.
June 5
THE TERMINAL CANCER PATIENT
D. W. Preven, M.D.
June 19
RECOGNITION OF COLORECTAL DISEASE WITH THE TUTORENDOSCOPE
H. D. Markman, M.D.
CREDIT: AMA & AAFP Cat. 1

For further information contact Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx 10461. Tel: 212/430-2000.

Albert Einstein College of Medicine of Yeshiva University

1300 Morris Park Avenue
Bronx
* Fifth Floor Auditorium
June 18–23
A LECTURE/LABORATORY COURSE
THE ANATOMICAL BASIS OF SURGICAL PROCEDURES
CREDIT: AMA Cat. 1 (48 hrs.)

For further information please contact Office of Continuing Medical Education, Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx 10461. Tel: 212/430-2822.

The New York Hospital–Cornell Medical Center

525 East 68th Street
* Westchester Division of The New York Hospital
21 Bloomingdale Road
White Plains
June 6
THE EFFECTS OF DIVORCE AND CUSTODY ON THE CHILD
Paulina Kernberg, M.D.
FEE: $75. including lunch CREDIT: AMA Cat. 1 (8 hrs.)

For further information on fees and registration contact Ruth Pollack, 212/472-4344; Payne Whitney Clinic, PWC 111, 525 East 68th Street, New York 10021.

The New York Academy of Medicine with The Group for Geriatric Psychiatry of New York

2 East 103rd Street
June 10, 8:00 p.m.
PSYCHOLOGY OF DEMENTIA
NO FEE CREDIT: AMA Cat. 1 (1 hr.)

For further information contact William J. Gershell, M.D., President, The Group for Geriatric Psychiatry of New York, 40 East 89th Street, New York 10028.

College of Physicians & Surgeons of Columbia University

630 West 168th Street

June 15–27
NEW YORK ORTHOPAEDIC PATHOLOGY, BIOMECHANICS AND CLINICAL REVIEW COURSE
(A) PATHOLOGY, June 15–19 FEE: $400. CREDIT: AMA Cat. 1 (45 hrs.)
(B) APPLIED BIOMECHANICS, June 20–21 FEE: $150. CREDIT: AMA Cat. 1 (13 hrs.)
(C) CLINICAL ORTHOPAEDICS, June 22–27 FEE: $350. CREDIT: AMA Cat. 1 (36 hrs.)
FEE: COMBINED COURSE $795. CREDIT: AMA Cat. 1 (94 hrs.)

For further information contact Dr. Elizabeth C. Gerst, Director, Continuing Education Center, College of Physicians & Surgeons, 630 West 168th Street, New York 10032. Tel: 212/694-3682.

Seminars & Symposia, Inc.

1290 Avenue of the Americas
June 17–July 6
IATROGENIC DISORDERS IN PATIENT CARE
Stanley G. Seckler, M.D.
CREDIT: AMA Cat. 1 (40 hrs.)

For further information contact Nathaniel Finby, M.D., President of Seminars & Symposia, 1290 Avenue of the Americas, New York 10019. Tel: 212/489-7790.

New York County Medical Society

40 West 57th Street

* Sheraton Centre
Seventh Avenue and 52nd Street
June 19, 20, 21
EIGHTH JOINT NEW YORK/TOKYO MEDICAL CONGRESS
CREDIT: AMA Cat. 1
June 20 8:00 a.m.–5 p.m.
SCIENTIFIC PROGRAM
CREDIT: AMA Category 1 (6 hrs.)
For further information contact New York County Medical Society, 40 West 57th Street, New York 10019. Tel: 212/582-5858.

QUEENS COUNTY

Flushing Hospital and Medical Center

Parsons Boulevard and 45th Avenue
Flushing
June 2
CALCIUM HOMEOSTASIS & THE PATHOGENESIS OF HYPOCALCEMIC DISORDERS
Louis M. Sherwood, M.D.
June 9
EVALUATION & MANAGEMENT OF LOW BACK PAIN
William Shucart, M.D.
June 16
COMMONLY MISSED LIVER DISEASES: PRIMARY BILIARY CIRRHOSIS & WILSON'S DISEASE
Irmin Sternlieb, M.D.
June 23
COR PULMONALE
Joseph Reichel, M.D.
June 30
WHAT THE PRIMARY PHYSICIAN SHOULD KNOW ABOUT DERMATOLOGY
Michael Fisher, M.D.
June 7, 9:00 a.m.–12 Noon, Sunday
SIGNIFICANCE OF ABG MEASUREMENTS IN CLINICAL MEDICINE TODAY
INTERPRETATION & CLINICAL CORRELATION OF ABG ABNORMALITIES
APPROACH TO THE DIAGNOSIS OF MIXED ACID BASE ABNORMALITIES BY USE OF ABG ANALYSIS
CREDIT: AMA Cat. 1
For further information contact Flushing Hospital and Medical Center, Parsons Boulevard and 45th Avenue, Flushing 11355. Tel: 212/670/5741.

Flushing Hospital and Medical Center Co-sponsored with Memorial Sloan Kettering Center

Parsons Boulevard and 45th Avenue
June 4
CONCEPTS AND TREATMENT OF SOFT TISSUE SARCOMAS
John N. Raaf, M.D.
For further information contact Flushing Hospital and Medical Center, Parsons Boulevard and 45th Avenue, Flushing 11355. Tel: 212/670-5000.

The Jamaica Hospital

89th Avenue and Van Wyck Expressway
Jamaica
* Community Room
8:30–9:30 a.m., Monday
June 8
ECHOCARDIOGRAPHY: DIAGNOSTIC PERSPECTIVES
Itzhak Kronzon, M.D.
CARDIOLOGY ROUNDS are conducted on alternate Mondays, from 8:30–9:30 a.m., in the Community Room—Clement Weinstein, M.D. and Staff
EGG & CLINICAL CARDIOLOGY CONFERENCES are held on alternate Thursdays, from Noon to 1:00 p.m., Francis E. Raia, M.D.
PRIMARY CARE CONFERENCES
ORTHOPEDICS
* Community Room
11:45–12:45 Monday
June 1
BONE TUMORS
Herbert Jalens, M.D.
PSYCHIATRY
* Community Room
11:45–12:45 Monday
June 15
DEPRESSION AS ORGANIC BRAIN SYNDROME IN THE ELDERLY
Benjamin J. Becker, M.D.
UROLOGY
* Community Room
11:45–12:45 Monday
INDICATIONS FOR PROSTATECTOMY
Paul J. Cutrofello, M.D.
ENDOCRINOLOGY ROUNDS are conducted monthly, from Noon to 1:00 p.m., in the Community Room, on Tuesdays, Howard D. Kolodny, M.D., and Staff
HEMATOLOGY
* Community Room
10:45–11:45 a.m., Tuesdays
June 16
ULTRASONOGRAPHY IN HEMOLYTIC DISORDERS
Robert L. Bard, M.D.
HEMATOLOGY GRAND ROUNDS are conducted weekly, on Fridays, from 1:00–2:30 p.m., in the First Floor Conference Room.
The following *HEMATOLOGY LECTURE* will be held on Wednesday, from 9:00–10:30 a.m., in the Trump Pavilion:
MEDICAL GRAND ROUNDS—PROGRESS IN MEDICINE
June 17
MYELOPROLIFERATIVE DISEASE
Bernard D. Gussoff, M.D.
HEMATOLOGY CONFERENCES are conducted monthly, from noon to 1:00 p.m., in the Community Room, on Tuesdays, Malcolm E. Levine, M.D. and Staff.
NEPHROLOGY
10:45–11:45 a.m., Tuesday
June 9
THE CLINICAL VALUE OF RENAL BIOPSY
Lionel Mailloux, M.D.
NEPHROLOGY ROUNDS are conducted monthly, from noon to 1:00 p.m., in the Community Room, on Tuesdays, Masih, M.D. and Staff
NEUROLOGY
* Community Room
10:45–11:45 a.m. Tuesday
June 2
An Overview of Muscle Disease
Alfred C. Bannerman, M.D.
The following *NEUROLOGY LECTURES* are held on Wednesday, from 9:00–10:30 a.m., in the Trump Pavilion: *MEDICAL GRAND ROUNDS—PROGRESS IN MEDICINE*
June 3
GUILLIAN-BARRE SYNDROME
Naunihal Singh, M.D.
NEUROLOGY ROUNDS are conducted monthly, from noon to 1:00 p.m. in the Community Room, on Tuesdays, Alfred C. Bannerman, M.D.
TUESDAYS, the second Tuesday of the month, *INFECTIOUS DISEASES ROUNDS* are conducted from 3:30–4:30 p.m., in the Community Room, Robert H. Lapin, M.D.
MEDICAL GRAND ROUNDS AND PROGRESS IN MEDICINE
9:00–10:30 a.m., Wednesdays, Trump Pavilion
June 3
GUILLIAN-BARRE SYNDROME
Naunihal Singh, M.D.
June 10
UPDATE ON CHEMOTHERAPY OF BREAST CARCINOMA
Ezra M. Greenspan, M.D.

June 17
MYELOPROLIFERATIVE DISEASE
Bernard D. Gussoff, M.D.
WEDNESDAYS, 1:00-2:00 p.m., *TUMOR BOARD*—Fourth Wednesday—*CLINICAL PATHOLOGY CONFERENCE*, Assembly Room
INFECTIOUS DISEASES
10:45-11:45 a.m., Thursdays, Community Room
June 18
COMMON PROBLEMS AND PITFALLS OF DIAGNOSIS AND MANAGEMENT
Robert H. Lapin, M.D.
INFECTIOUS DISEASES ROUNDS are conducted on the Second Tuesday, from 3:30-4:30 p.m., in the Community Room, Robert H. Lapin, M.D.
ONCOLOGY
* Community Room
10:45-11:45 a.m., Thursdays
June 4
LONG-TERM COMPLICATIONS OF CHEMOTHERAPY
S. Sivamurthy, M.D.
The following *ONCOLOGY LECTURE* is held on Wednesday, from 9:00-10:30 a.m., in the Trump Pavilion; *MEDICAL GRAND ROUNDS—PROGRESS IN MEDICINE*
June 10
UPDATE ON CHEMOTHERAPY OF BREAST CARCINOMA
Ezra M. Greenspan, M.D.
PULMONARY DISEASES
* Community Room
10:45-11:45 a.m., Thursday
June 11
CONCLUSION, DISCUSSION & SELF-ASSESSMENT
Gerald M. Greenberg, M.D.
PULMONARY DISEASES ROUNDS are conducted monthly, from Noon to 1:00 p.m., in the Community Room, on Thursdays, Gerald M. Greenberg, M.D. and Staff
RHEUMATOLOGY ROUNDS are conducted monthly, from Noon to 1:00 p.m., in the Community Room, on Thursdays, William A. O'Connell, M.D. and Staff
ALTERNATE THURSDAYS, Noon-1:00 p.m., *ECG & CLINICAL CARDIOLOGY CONFERENCES*, Francis E. Raia, M.D.
MEDICAL GASTROENTEROLOGY
* Community Room
10:45-11:45 a.m., Fridays
June 5
DIFFERENTIAL DIAGNOSIS & TREATMENT OF MALABSORPTION
Sidney M. Fierst, M.D.
June 19
INFECTIOUS & SEXUALLY TRANSMITTED DISEASES OF RECTUM & COLON
Paul F. Miskovitz, M.D.
MEDICAL GASTROENTEROLOGY ROUNDS are conducted on alternate Fridays, in the Community Room, 10:45-11:45 a.m., Robert T. Todaro, M.D., and Staff
FRIDAYS, Noon to 1:00 p.m., Assembly Room *RADIOLOGY CONFERENCES*, Emerick Demeter, M.D. and Staff, alternating with *MEDICAL-PATHOLOGY-MORTALITY CONFERENCE*, Elizabeth Khayat, M.D. and Staff
FRIDAYS, 1:00-2:30 p.m., First Floor Conference Room *HEMATOLOGY GRAND ROUNDS*

NASSAU COUNTY

Long Island Jewish-Hillside Medical Center & The Post-Graduate Institute for Medical and Dental Education, New Hyde Park and the Health Sciences Center, SUNY (Stony Brook)

* Teaching Center Auditorium, Room 201C
Long Island Jewish-Hillside Medical Center
New Hyde Park
8:30-9:30 a.m., Thursdays
WEEKLY MORTALITY AND MORBIDITY CONFERENCE, from 8:00 a.m.-8:30 a.m., *PRECEEDS SURGICAL GRAND ROUNDS*
June 4
ARTERIAL INJURY—LABORATORY FINDINGS AND CLINICAL APPLICATION
William Doscher, M.D.
June 11
ADVERSE EFFECTS OF PEEP ON THE SURGICAL PATIENT
Lewis Kurtz, M.D.
June 18
COMPLICATIONS OF ILEOSTOMY
Richard Strauss, M.D.
June 25
OVERVIEW OF THE YEAR
Leslie Wise, M.D.
NO FEE CREDIT: AMA Cat. 1
For further information contact Reid Aaron, Long Island Jewish-Hillside Medical Center, New Hyde Park 11042. Tel: 212/470-2663.

Nassau Hospital

259 First Street
Mineola
June 23
FAMILY PRACTICE
DIABETES MELLITUS—PART II
John F. Aloia, M.D.
INTERNAL MEDICINE
* Breed Conference Room
11:00 A.M., Mondays
June 1
MEDICAL COMPLICATIONS OF PREGNANCY ASSOCIATED WITH MATERNAL AND PERINATAL MORTALITY
Steven A. Klein, M.D.
June 8
IATROGENIC SKIN REACTIONS
James Krivo, M.D.
June 15
MEDICAL RENAL DISEASE: RENAL HYPERTENSION
Heywood Epstein, M.D.
CRITICAL CARE CONFERENCES
* Breed Conference Room
11:00 a.m., Tuesdays
June 2
POSTOPERATIVE RESPIRATORY FAILURE - ASSESSMENT AND CORRECTION
John Rooney, M.D.
June 9
INFECTIOUS ARTHRITIS/OSTEOMYELITIS
Burke A. Cunha, M.D.
June 16
VASOMOTOR NEPHROPATHY
Vincent Alaimo, M.D.
ADVANCES IN MEDICINE
* Breed Conference Room
10:00 A.M.-Noon, Wednesdays
June 3
ASBESTOS ASSOCIATED LUNG DISEASES
Phillip Kane, M.D.
June 10
ANIMAL TRANSMITTED DISEASES
Stuart Levin, M.D.
INFECTIOUS DISEASE SYMPOSIUM
9:00 a.m.-1:00 p.m.
June 17
DIARRHEAL DISEASES
Richard B. Hornick, M.D.
NOSOCOMIAL INFECTIONS
William J. Holloway, M.D.
ENTEROCOCCAL INFECTIONS
Robert C. Moellering, Jr., M.D.
ORAL AND CUTANEIOUS MANIFESTATIONS OF

INFECTIOUS DISEASES
George A. Pankey, M.D.
PULMONARY INFECTIONS IN THE IMMUNOCOMPROMISED HOST
Jack S. Remington, M.D.

PROBLEM SOLVING CONFERENCES
* Breed Conference Room
11:00 a.m., Fridays

June 5
A DIAGNOSTIC ASSESSMENT OF ABG
Mervin Sakowitz, M.D.

June 12
HOW DO YOU DIAGNOSE COMMON FORMS OF CONGENITAL HEART DISEASE IN THE ADULT POPULATION?
Thomas Delaney, M.D.

June 19
MAGNESIUM AND PHOSPHATE METABOLISM
Louis Imbriano, M.D.

OBSTETRICS AND GYNECOLOGY MEDICAL LECTURE SERIES
* Breed Conference Room
8:00 a.m.

June 12
BASIC INFERTILITY II
Ira Spector, M.D.

UPDATE IN GYNECOLOGIC ONCOLOGY
* Breed Conference Room
9:00 a.m.

June 26
PALLIATION AND SUPPORT OF THE CANCER PATIENT

UPDATE IN GYN AND OBSTETRICAL PATHOLOGY
* Breed Conference Room
8:00 a.m.

June 5
PATHOLOGY OF THE OVARY I

June 19
PATHOLOGY OF THE OVARY II

UPDATE IN GYNECOLOGIC ENDOCRINOLOGY
* Breed Conference Room
Raymond L. Vande Wiele, M.D.
9:00 a.m.

June 5
ANNOVULATION AND ITS TREATMENT

UPDATE IN PERINATOLOGY
* Breed Conference Room
Steven A. Klein, M.D.
9:00 a.m.

June 19
MANAGEMENT OF PREGNANCY AND DELIVERY WITH AN ABNORMAL FETUS

OPHTHALMOLOGY
* Board Room
5:00 p.m.
MODERN TRENDS IN OPHTHALMOLOGY

June 2
RETINA AND VITREOUS
Morton Rosenthal, M.D.

PEDIATRICS
* 6 new Conference Room
1:00 p.m., Thursdays
NEONATAL LECTURE SERIES
Paul F. Twist, D.O.

June 4
BREECH PRESENTATIONS

June 11
TETRALOGY OF FALLOT

June 18
NEONATAL GENITAL URINARY PROBLEMS

June 25
NEONATAL EFFECTS OF ANTICONVULSANTS

PERINATAL/NEONATAL CONFERENCE
* Breed Conference Room
12:00 Noon, Fridays
Steven A. Klein, M.D., Paul F. Twist, D.O.

June 5
MORBIDITY AND MORTALITY CONFERENCE

June 12
RISK—BENEFIT RATIO OF CAESAREAN SECTIONS

June 19
PERINATAL CASE STUDIES

UROLOGY
* Breed Conference Room
7:45 a.m., Tuesdays
GUEST LECTURES

June 2
INTERSEX
David T. Mininberg, M.D.
For further information contact G. E. Lessard, Ph.D., Nassau Hospital, 259 First Street, Mineola 12501. Tel: 516/663-2521.

Nassau County Medical Center

2201 Hempstead Turnpike
East Meadow
* Amphitheater Dynamic Care Building
10:00 a.m., Thursdays

June 4
CURRENT THERAPEUTIC APPROACHES TO ASTHMA
Carl Shertzer, M.D.

June 11
INFLAMMATORY BOWEL DISEASE
Howard Spiro, M.D.
CREDIT: AMA Cat. 1
For further information contact Ethel Ford, CME Coordinator, Department of Medicine, Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow 11554. Tel: 516/542-3713.

Nassau County Medical Center

2201 Hempstead Turnpike
East Meadow

June 26
POST-CHAMBER INTRA-OCULAR LENS
POST-OPERATIVE MANAGEMENT & COMPLICATION
Rose Lombardo, M.D.
For further information contact Elsa K. Rahn, M.D., Director, Division of Ophthalmology, Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow 11554. Tel: 516/542-1023.

SUFFOLK COUNTY

Brookhaven Memorial Hospital Medical Center

101 Hospital Road
Patchogue
* 1st Floor Conference Room
7:50–9:00 a.m.

June 5
CAT SCAN FOR THORAX & ABDOMEN
Morton Schneider, M.D.

June 12
LABORATORY CLINIPEARLS
Ray Gambino, M.D.

June 19
ENVIRONMENTAL HEALTH HAZARDS: AN EMERGING PUBLIC HEALTH PROBLEM
Mahfouz Zaki, M.D.

June 26
CHANGING CANCER EPIDEMIOLOGY
Dwight Janerich, D.D.S.
CREDIT: AMA Cat. 1 & AAFP
For further information contact Dorothy S. Lane, M.D., Director of Medical Education, Brookhaven Memorial Hospital Medical Center, 101 Hospital Road, Patchogue 11772. For further information call the Dept. of Community Medicine at 516/654-7797.

Brookhaven Memorial Hospital Medical Center

101 Hospital Road
Patchogue
* 1st Floor Conference Room
June 2, 7:50 a.m.
RECURRENT OTITIS MEDIA
Charles Bluestone, M.D.
CREDIT: AMA Cat. 1 & AAFP
For further information contact Dorothy S. Lane, M.D., Director of Medical Education, Brookhaven Memorial Hospital Medical Center, 101 Hospital Road, Patchogue, 11772. Tel: 516/654-7797.

Brookhaven Memorial Hospital Medical Center

101 Hospital Road
Patchogue
* 1st Floor Conference Room
8:30 a.m., Saturday
June 6
MEDICAL GRAND ROUNDS
Martin Roginsky, M.D.
CREDIT: AMA Cat. 1 & AAFP
For further information contact Dorothy S. Lane, M.D., Director of Medical Education, Brookhaven Memorial Hospital Medical Center, 101 Hospital Road, Patchogue, 11772. Tel: 516/654-7797.

Suffolk Academy of Medicine

850 Veterans Memorial Highway
Hauppauge
June 3, 8:00 p.m.
SCIENTIFIC SESSION
Carl Olsen, M.D.
CREDIT: AMA Cat. 1
6:00 p.m.—Dinner and Meeting
For further information contact Urology Section of the Suffolk Academy of Medicine, 850 Veterans Memorial Highway, Hauppauge. Tel. 516/265-6666

St. Charles Hospital

200 Belle Terre Road
Port Jefferson
* St. Charles Classroom A
June 5, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
June 9, 11:00 a.m., Tuesday
OB/GYN CONFERENCE
OVULATION INDUCTION
Zev Rosenwaks, M.D.
June 13, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND-JEWISH-HILLSIDE MEDICAL CENTER
June 15, 7:30 a.m., Monday
SURGICAL CONFERENCE
RESECTION OF SPLENIC CYST WITHOUT SPLENECTOMY (FILM PROVIDED BY LEDERLE LABORATORIES)
June 15, 7:30 a.m., Monday
OPHTHALMOLOGY CONFERENCE
ONE-EYED VISION
Norbert Fethke, M.D.
June 19, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
June 26, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
* St. Charles Lecture Room
June 26, 8:00 a.m., Friday
FAMILY PRACTICE PROGRAM
COMMON SPORTS INJURIES
Richard Legouri, M.D.
For further information contact Mary Rotolo, Department of Medical Education, St. Charles Hospital, 200 Belle Terre Road, Port Jefferson 11777. Tel: 516/473-2800.

Mather Memorial Hospital

North Country Road
Port Jefferson
* Mather Conference Room
June 1, 11:45 a.m.-1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
June 2, 11:30 a.m.-1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
PEPTIC ULCER: SURGICAL ALTERNATIVES
Jack Rudick, M.D.
June 8, 11:45 a.m.-1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
June 9, 11:30 a.m.-1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
CURRENT CONCEPTS OF A MEDICAL-LEGAL INVESTIGATIVE SYSTEM
Sidney B. Weinberg, M.D.
June 15, 7:00 a.m., Monday
ANESTHESIOLOGY CONFERENCE
INTRA-ANESTHETIC BRONCHOSPASM
Edward A. Norris, M.D.
June 15, 11:45 a.m.-1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
June 16, 11:30 a.m.-1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
X-RAY EXPOSURE AND THE RISK OF CANCER
Arthur Upton, M.D.
June 22, 11:45 a.m.-1:15 p.m., Monday
TUMOR CONFERENCE
APPROACHES TO THE DIAGNOSIS OF MINIMAL BREAST CANCER AND RELATED CONDITIONS
Fred Gorstein, M.D.
June 23, 11:30 a.m.-1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
THROMBOLYTIC THERAPY IN THROMBOSIS
Sol Sherry, M.D.
June 29, 11:45 a.m.-1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
June 30, 11:30 a.m.-1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
CHRONIC OBSTRUCTIVE PULMONARY DISEASE
Sanford Chodosh, M.D.
For further information contact Mary Rotolo, Department of Medical Education, Mather Memorial Hospital, North Country Road, Port Jefferson, 11777. Tel: 516/473-1320.

NEWBURGH

Medical Society of the County of Orange

465 Route 9W North
Newburgh
* Horton Memorial Hospital Auditorium
8:30-10:30 a.m.
June 12
175TH ANNIVERSARY
7th CME PROGRAM
Satish Rohatgi, M.D.
CARDIAC COMPLICATIONS IN INFANCY
Satish Rohatgi, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)

For further information contact Paul Chellappa, M.D., Medical Society of the County of Orange, 465 Route 9W North, Newburgh 12550. Tel: 914/561-0381.

BUFFALO

SUNY at Buffalo

135 Cary Hall
3435 Main Street
Buffalo
* Marriott Hotel
Buffalo
June 4

POISON PREVENTION AND TREATMENT

For further information contact Gertrude Myers, Program Coordinator, SUNY at Buffalo, 135 Cary Hall, 3435 Main Street, Buffalo 14214. Tel: 716/831-5526.

State University of New York at Buffalo Children's Hospital

219 Bryant Street
Buffalo
* Niagara Hilton Hotel
Niagara Falls
June 18–20

WHAT'S NEW IN DIAGNOSTIC PROCEDURES OF PEDIATRIC LUNG DISEASES

Gerd J. A. Cropp, M.D.

FEE: $200. CREDIT: AMA Cat. 1 (14 hrs.)

* Buffalo Hilton Hotel
Buffalo
June 25–26

THE 1ST NATIONAL CONFERENCE ON PEDIATRIC NEPHROLOGY/UROLOGY

Drs. Tadla Baliah, Joseph Y. Dwoskin, Irme V. Magoss

FEE: $200. CREDIT: AMA Cat. 1 (14 hrs.)

For further information contact Rayna Dutton, Coordinator, Continuing Medical Education, State University of New York at Buffalo, Children's Hospital, 219 Bryant Street, Buffalo 14222. Tel: 716/878-7689.

Roswell Park Memorial Institute co-sponsored by the Cancer Control Program of the Institute, and the American Cancer Society, New York State Division and Erie County Unit

666 Elm Street
* Hilleboe Auditorium
June 6

PROGRESS IN THE MANAGEMENT OF UPPER-GASTROINTESTINAL CANCER

Harold Douglass, M.D.

FEE: $25. CREDIT: AMA Cat. 1 & AAFP & AOA Cat. 2

For further information contact Gayle Bersani, Coordinator, Cancer Control Office, Roswell Park Memorial Institute, 666 Elm Street, Buffalo 14263. Tel: 716/845-4406.

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SYRACUSE

SUNY-Upstate Medical Center

766 Irving Avenue
Syracuse
*Hotel Syracuse
South Warren Street
Downtown Syracuse
June 20

EMERGENCIES IN THE DENTAL OFFICE

Morton F. Geiger, DDS, Stanley Kaplan, DDS

FEE: $50. CREDIT: American Academy of General
$25. Staff Dentistry (7 hrs.)

For further information contact Program Assistant, Office of Continuing Education, SUNY Upstate Medical Center, 766 Irving Avenue, Syracuse 13210. Tel: 315/473-4606.

SUNY-Upstate Medical Center

750 East Adams Street
Syracuse
* Marriott Inn
Syracuse
June 11–12

CRITICAL CARE AND EMERGENCY MEDICINE

For further information contact Program Coordinator, Office of Continuing Medical Education, Upstate Medical Center, State University of New York, 750 East Adams Street, Syracuse 13210. Tel: 315/473-4304 or 473-4606.

ROCHESTER

The Rochester Eye Institute and the Department of Ophthalmology at Park Ridge Hospital

1555 Long Pond Road
Rochester
*Genesee/Plaza Holiday Inn
June 12–13

VITREO-RETINAL DISEASE AND EXTRACAPSULAR CATARACT SURGERY

For further information contact Katherine Sgabelloni, R.N., Coordinator, Ophthalmic Services, Park Ridge Hospital, 1555 Long Pond Road, Rochester 14626.

OUT-OF-STATE

SAYRE, PENNSYLVANIA

Guthrie Clinic, Donald Guthrie Foundation for Medical Research and the Robert Packer Hospital

Sayre
June 4

INFECTIONS IN SURGERY

William C. Beck, M.D., Paul Royce, M.D.

FEE: $100. CREDIT: AMA Cat. 1 (6 hrs.)

For further information contact James E. Connell, Director of Development, Robert Packer Hospital, Guthrie Square, Sayre, Pa. 18840. Tel: 717/888-6666.

SCHEDULE OF SCIENTIFIC MEETINGS

1981 ANNUAL CME ASSEMBLY

Medical Society of the State of New York
Niagara Falls Convention Center

FRIDAY, JUNE 26

Morning:
- Cardiovascular Diseases
- Obstetrics & Gynecology
- Gastroenterology, Colon & Rectal Surgery
- Cancer Update 1981—General Session
- Chest Diseases

Afternoon:
- Occupational Medicine, and Medical Legal & Workers' Compensation matters
- Obstetrics & Gynecology
- Gastroenterology, Colon & Rectal Surgery
- Alcohol & the Unborn—General Session
- Preventive Medicine
- Otolaryngology & Maxillofacial Surgery
- Dermatology & Syphilology Niagara Hilton

SATURDAY, JUNE 27

Morning:
- Ophthalmology
- Internal Medicine
- Surgery, Urology & Anesthesiology
- Pathology, Radiology & Orthopedic Surgery
- Neurosurgery

Afternoon:
- Ophthalmology
- Internal Medicine
- Computer Application to Office & Hospital Practice General Session
- Cost Containment (Meeting Room 2)
- Albion O. Bernstein, M.D. Award Lecture—General Session

SUNDAY, JUNE 28

Morning:
- Allergy & Immunology
- School Health & Pediatrics
- Psychiatry & Family and General Practice
- Plastic, Reconstructive & Maxillofacial Surgery and Physical Medicine & Rehabilitation, and Orthopedics
- Neurology

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Please describe type of practice: a) Solo?______b) Association?________Please describe the reason for associateship________________
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Please show what type of financial agreement is acceptable: a) Straight salary?________________
b) Percentage basis?________c) Will investment be necessary?________________
d) If partnership basis is acceptable, how soon would it be available?________________
________________e) Would written agreement be used?________________

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If no, please describe hospitals in nearby areas________________

List any other features which you consider would make the position attractive to a prospective physician________________

List person to be contacted by interested physician giving name, address and telephone number

When completed, kindly return to: Physicians' Placement Bureau, Medical Society of the State of New York, 420 Lakeville Road, Lake Success, N.Y. 11042. Telephone: (516) 488-6100.

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Hospitals___________________________________Dates_____________

Residency____

Hospitals___________________________________Dates_____________

Specialty____

Licensed in what States?_______________________________________

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American Board Certificates held?________________________________

Eligible____________________Certified_________________________

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Date you will be available for practice________Former locations in which you have practiced____
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JUNE 1981

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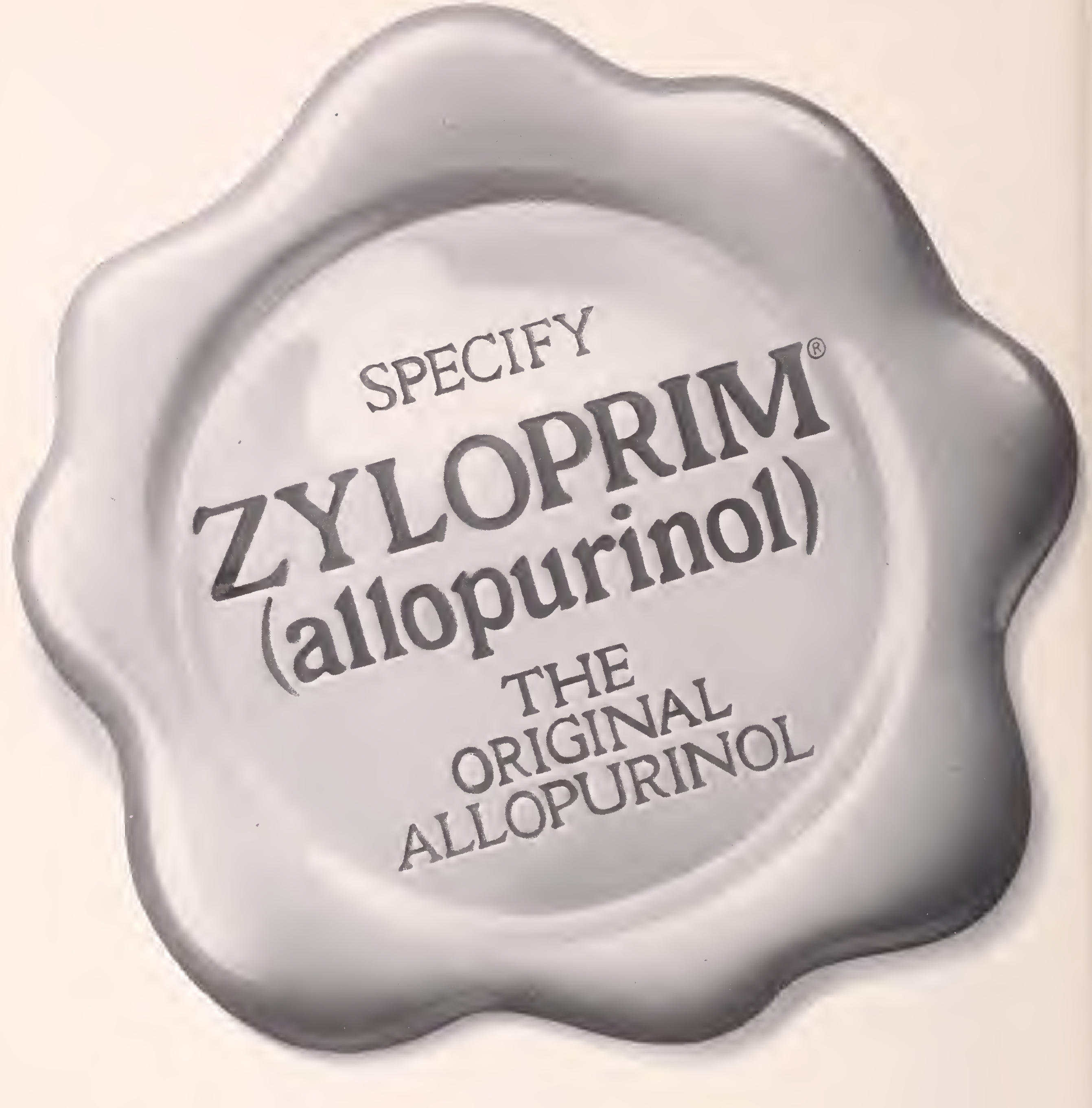
Molecular model of the DNA helix. (See page 1035.)



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New York State Journal of Medicine

(ISSN 0028-7628)

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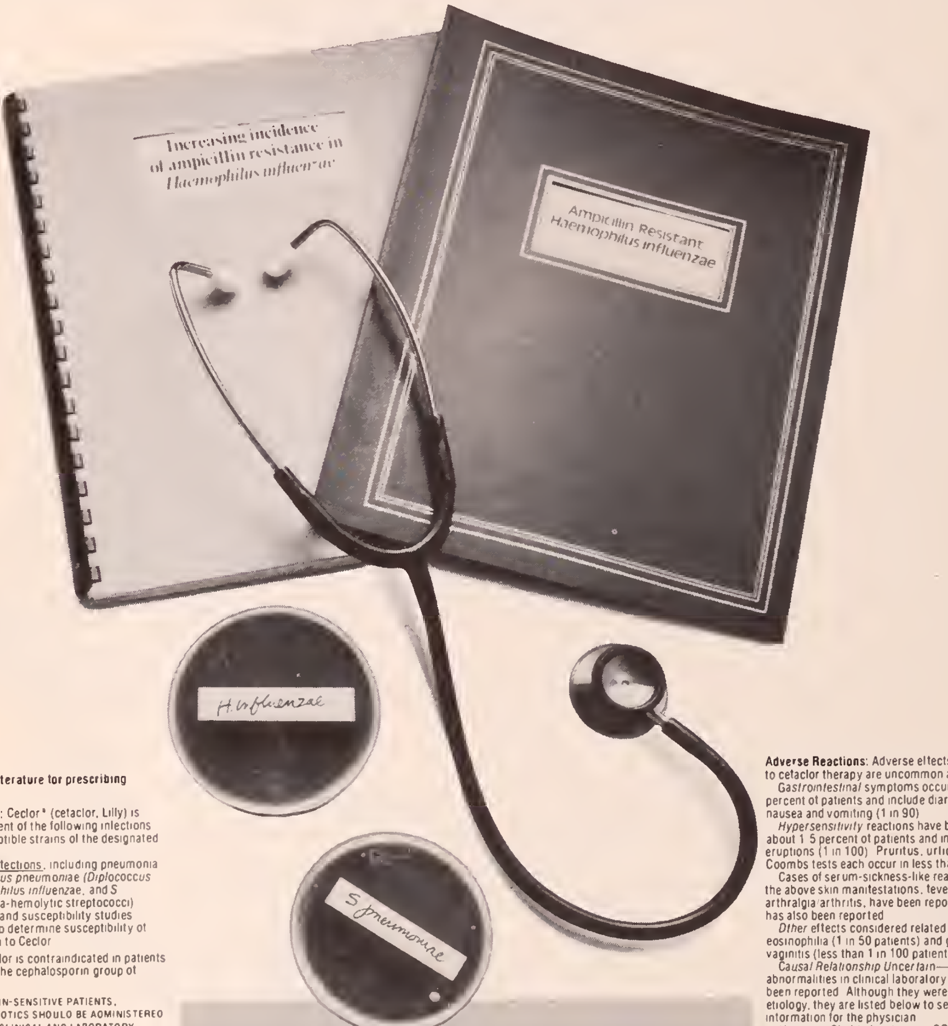
An added complication... in the treatment of bacterial bronchitis*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Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings. IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs

Precautions. If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary the patient should be treated with appropriate agents, e g , pressor amines, antihistamines, or corticosteroids

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms Careful observation of the patient is essential If superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly)

Usage in Pregnancy —Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy —Safety of this product for use in infants less than one month of age has not been established

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-5]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

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cefaclor

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Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below

Gastrointestinal symptoms occur in about 2 5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90)

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100) Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported Anaphylaxis has also been reported

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients)

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103060R]

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*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae*[8]

Note Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information

References

1 Antimicrob Agents Chemother , *8* 91, 1975
2 Antimicrob Agents Chemother , *11* 470, 1977
3 Antimicrob Agents Chemother , *13* 584, 1978
4 Antimicrob Agents Chemother , *12* 490, 1977
5. Current Chemotherapy (edited by W Siegenthaler and R Luthy), II: 880 Washington, D C American Society for Microbiology, 1978
6. Antimicrob Agents Chemother., *13* 861, 1978
7 Data on file, Eli Lilly and Company
8 Principles and Practice of Infectious Diseases (edited by G L Mandell, R G Douglas, Jr , and J E Bennett), p 487 New York John Wiley & Sons, 1979

Lilly

100061

Additional information available to the profession on request from
Eli Lilly and Company
Indianapolis Indiana 46285

Eli Lilly Industries, Inc.
Carolina Puerto Rico 00630

1102 Eosinophilic Granuloma of the Cervical Spine in an Adult
Ira R. Casson, M.D., Donald Blair, M.D., Gary Gerard, M.D., Hang S. Byun, M.D., Pratap Patel, M.D., and *K. Bajaj, M.D.*

1105 Hemoglobin E in a Refugee Family
Michael R. Owens, M.D., John R. Andolina, M.D., and *Barbara L. Stein, M.S., M.T. (ASCP) S.H.*

1109 Renal Artery; Originating above celiac axis
Richard Schaffer, M.D., David H. Gordon, M.D., and *Sidney Ganz, M.D.*

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1112 Medical Malpractice Panel; how has it worked?
John T. Flynn, M.D.

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Abstracts

Franco, V. W.: Ethics of recombinant DNA research and technology, **New York State J. Med.** 81: 1035 (June) 1981.

It is clear that the wealth of evidence and expert testimony gathered to date support the conclusion that recombinant DNA research poses no real hazard to public health, laboratory workers, or the environment. The benefits reaped and projected for humanity surpass all unsubstantiated risks, and without question justify continuation of the research. Debate has been protracted because six years ago representatives of the scientific community exercised their responsibility for discreet transmission of conjectural information to an alarmed public. In order to avert future controversies similar to the one still surrounding recombinant DNA, representatives of the scientific community endeavor to develop mechanisms of effectively communicating the collective judgment of their peers in a manner that enables the public to distinguish rational from irrational views.

Kanke, Y., Bashey, R. I., and Mori, Y.: Biochemistry of collagen; present knowledge, **New York State J. Med.** 81: 1045 (June) 1981.

Collagen is the major structural component of many organs and is accordingly involved in normal histologic and gross structural development and in many diseases, both hereditary and acquired. This article reviews basic knowledge of the biochemistry of collagen to date and the alterations and defects in collagen metabolism which give rise to disease. The second part of this paper will appear in a subsequent issue and deal with nonfibrous components of connective tissue and its aberrations.

Carvounis, C. P., Feinfeld, D. A., Weinstein, E., Lipner, H. I., Sadiqali, R., and Avram, M. M.: Lipid levels in hemodialyzed diabetic uremic patients, **New York State J. Med.** 81: 1053 (June) 1981.

Levels of triglycerides and cholesterol, as well as plasma insulin, TSH (thyrotropin), and GH (growth hormone) were measured in diabetic and nondiabetic patients on hemodialysis. Diabetics not requiring insulin had significantly lower levels of cholesterol and triglycerides than controls; in diabetics taking insulin these differences were not significant. There was an inverse relationship between plasma insulin levels and plasma triglyceride levels in the diabetics not taking insulin, whereas the normal direct relationship between these two variables was found in controls. A direct relationship between plasma TSH and GH was found in uremic controls; whereas an inverse relationship between these two hormones was found in diabetics not requiring insulin. This perturbation may have an effect on lipid levels. Hyperlipidemia may not be important in the pathogenesis of arteriosclerosis in diabetics on chronic hemodialysis.

Buchin, P. J.: Esophagus; foreign bodies, **New York State J. Med.** 81: 1057 (June) 1981.

Patients with foreign bodies of the esophagus may be found to have a history of prior swallowing difficulties or have had acute obstructions. The records of 155 patients with foreign body of the esophagus were reviewed. Of these, 33 patients (21 percent) were found to have underlying esophageal lesions, with the most common etiologic evidence shown to be caustic (alkali or lye)-related narrowing and obstruction after surgical repair of tracheoesophageal fistula. A search for underlying esophageal pathologic conditions yields a variety of additional causes, including dysmotilities, diverticula, Schatzki's rings, and reflux strictures. Motility abnormalities are particularly common in children who have undergone repair of tracheoesophageal fistula, and the mechanisms for these motor abnormalities are reviewed.

Dube, S. K., Jhaveri, R. C., Evans, H. E., Spergel, G., and Ferrara, A. M.: Atherosclerosis risk factors in urban black children, **New York State J. Med.** 81: 1061 (June) 1981.

Serum cholesterol and triglyceride levels were correlated with height, weight, and blood pressure in 1,058 black children, ages 4 to 18 years, from the Bedford Stuyvesant area of Brooklyn, New York. Among boys, there was a significant decline in serum cholesterol levels starting at the age of 13, with the lowest level at age 17 years. In girls, there was a similar, more gradual statistically nonsignificant decrease in cholesterol levels, starting at age 11, and reaching the lowest level at age 16 years. In girls, the triglyceride levels began to fall at age 11, reaching the lowest level at age 17 years. In boys there was no discernable trend. A significant (p less than 0.001) inverse correlation was found between cholesterol and age, weight, and height, only in boys. Serum triglyceride levels correlated inversely with age, weight, and height, only in girls. Serum cholesterol and triglyceride levels did not significantly correlate with systolic or diastolic blood pressure in either sex.

Rosner, D.: Ultrasonography in the diagnosis and management of palpable breast masses, **New York State J. Med.** 81: 1066 (June) 1981.

This study was designed to investigate the capability of ultrasonography to provide additional diagnostic information. A total of 126 patients with palpable or mammographic breast masses, requiring surgical biopsies, were given physical examinations and then evaluated by sonography and mammography. In the presence of palpable mass, sonographic scanning was superior to palpation or mammography in discriminating a cyst from a solid tumor. Ultrasound examination accurately diagnosed cystic masses in 95 percent (18 of 19 patients) whereas mammography correctly identified the cystic masses in only 57 percent (8 of 14 patients) (P less than 0.01). For fibrocystic masses, the diagnostic accuracy of sonography was 86 percent (43 of 50 patients) versus a 68 percent accuracy by mammography (21 of 31 patients) (P less than 0.10). The high resolution of ultrasonography in the diagnosis of cystic and fibrocystic masses led to a substantial reduction in the number of biopsies. Only one half (9 of 19) of the patients with cystic masses, and about one third (19 of 50) of those with fibrocystic masses, required excisional biopsy. The rest had aspiration (10 of 19). Forty-four patients with solid masses (6 fibroadenomas and 38 carcinomas) and 8 patients with nipple discharge, underwent surgical biopsy. Breast cancers were correctly diagnosed in 79 percent (30 of 38) by sonography, and 83 percent (30 of 36) by mammography (P less than 0.90). Five nonpalpable invasive breast cancer were detected solely by mammography. Ultrasonography alone is unsatisfactory for detection and early diagnosis of breast cancer due to its inability to visualize microcalcifications. Ultrasonography in conjunction with mammography and careful surgical assessment can spare many patients with benign lesions from unnecessary, costly, and stressful surgical biopsies.

Month in Washington

The threat of federal intervention against physicians sitting on policy-making boards of Blue Shield or similar medical insurance plans has been lifted by the Federal Trade Commission.

The agency abandoned a two-year-old proposal by the Commission's Bureau of Competition that the FTC issue a rule limiting control physicians or medical societies may have over the 70 Blue Shield boards.

Additional studies have contradicted original staff findings that health care costs were higher in areas where physicians controlled Blue Shield boards, FTC officials said. They also noted that consumer representation has increased on boards in recent years.

The Commission's decision to abandon the industry-wide effort was unanimous and came after less than 50 minutes of debate and without a formal vote.

The Blue Shield proposal was one of a series aimed at health care providers and insurors in recent years and ranked in importance only behind the FTC's action against the AMA's code of ethics involving physician advertising.

Blue Shield plans disputed the FTC's staff allegations that physician reimbursement was higher where physicians exercised significant control over local Blue Shield plans.

Instead of an industry-wide rule on the matter, an action that probably would have been protested in court, the FTC decided to seek any abuse on a case-by-case basis.

The controversial staff report, which received prominent media attention at the time, charged that control by the medical profession of insurance plans is so pervasive that some physicians call Blue Shield "the economic arm of the medical profession."

In a statement on the FTC's action, Walter McNerney, President of Blue Cross-Blue Shield, said the decision "vindicates" the Blue Shield position that the presence of

Prepared by the Washington, D.C., office of the American Medical Association.

continued on page 1127

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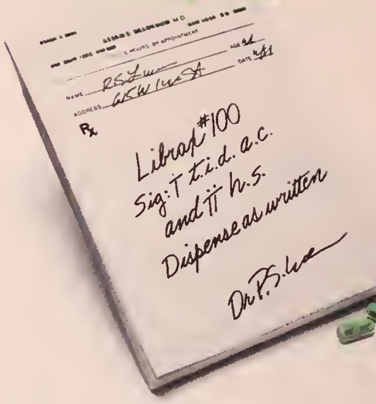
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Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis

Final classification of the less-than-effective indications requires further investigation

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e g , operating machinery, driving) Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated) Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function Paradoxical reactions reported in psychiatric patients Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges Syncope reported in a few instances Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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Letters to the Editor

Sensitivity testing of *Mycobacterium tuberculosis*

To the Editor: After the last tuberculosis sanatorium in New York State closed, care of patients for tuberculosis was switched from the specialist to the generalist. No longer does a single physician see hundreds of cases of tuberculosis a year, which used to help him recognize shifts in the drug susceptibilities of his patients.

To satisfy part of this need the Mycobacteriology Laboratory of the Division of Laboratories and Research, New York State Department of Health, surveyed the drug resistance patterns of isolates of *Mycobacterium tuberculosis* submitted to our laboratory. These specimens came from all over the State except New York City and Nassau, Westchester, Monroe, and Erie counties, which do their own sensitivity studies. Essentially our specimens represented the rural areas of the State plus a few of the smaller cities. In our experience multiple drug resistance in previously untreated patients is rare in rural New York State.

During a six-month period we examined 181 isolates of *M. tuberculosis* from patients whose records stated that they had never been treated for tuberculosis. These isolates were tested against four drugs: INH (isoniazid), SM (streptomycin), EM (ethambutol), and RM (rifampin). Isolates from 6 (3 percent) patients were resistant to INH, 4 (2 percent) to SM, and none to either EM or RM. None was resistant to more than one drug.

Two of the patients with INH-resistant isolates had been born in the Orient and arrived in New York State within the preceding year. One left shortly after the specimen was collected and was lost to follow-up.

The response of the remaining nine patients to therapy was then evaluated. One patient was noncooperative; one was lost to follow-up; and a third could not bring up sputum. The others became negative on culture within one to four months after therapy was instituted and remain negative to date. The last positive culture occurred before the sensitivity results were available on the first isolate.

These results support the recommendation that patients, at least those from mostly rural areas, should have culture sensitivity-testing only if the physician finds any of the following indications:

1. Positive microscopic results after two months of adequate therapy.
2. Positive culture results after five or six months of therapy.
3. Reactivation of tuberculosis.
4. Patients coming from areas with high levels of drug-resistant tuberculosis, such as the Orient, Africa, and inner cities.
5. Contacts with known drug-resistant patients.

HOWARD GRUFT, Ph.D.
Division of Laboratories and Research
New York State Department of Health
Albany, N.Y. 12201

Early medical photography in America (1839–1883)*

To the Editor: I would like to thank Stanley Burns, M.D., for his interesting and informative article on Civil War medical photography that appeared in the August, 1980, issue of the Journal.

As a registered pharmacist and member of the 108th New York Infantry Regiment of the North-South Skirmish Association, I have long been interested in Civil War medicine, yet until this article appeared I was not aware of the use of clinical and pathological photography during the war. Perhaps I can now find photographic information on two of my Union ancestors who were wounded in the War of the Rebellion.

In the interests of historic accuracy, I would like to attempt to correct some errors that appeared in the article.

General "Stonewall" Jackson was not a cavalry leader. His was an infantry command, and although his men were sometimes referred to as "foot cavalry" as a tribute to their marching ability, the only mount they had were "shanks mare," their own legs.

The photograph captions referring to Federal wounded at Marye's Heights in May, 1864, as casualties of the Battle of Fredericksburg are in error. The first battle of Fredericksburg was fought December 13, 1862, and the second Battle of Fredericksburg, May 3 to 4, 1863, was part of the Chancellorsville Campaign. Federal wounded on Marye's Heights, Fredericksburg, in May, 1864, would be casualties of the battles of the Wilderness and Spotsylvania.

In Figure 3, the wounded soldier is in Zouave uniform. The soldier next to him does not wear a gray Zouave uniform, but is dressed in a Federal issue uniform of sky-blue trousers and great-coat, with an oil-cloth covered cap. These uniforms do appear gray in the photographs of the time. I also doubt that this soldier is a member of the U.S. Colored Troops and think that his dark coloring is more photographic than natural.

The 57th New York was in the Second Corps, and not Sedgwick's Sixth Corps. It was during the First Battle of Fredericksburg, while in Zook's Brigade, Hancock's Division of the Second Corps, that this regiment suffered 45 percent casualties while assaulting the stonewall on Marye's Heights.

Zouave regiments were not the equivalent of modern day Rangers. They fought in the same manner and formation as regularly uniformed regiments. Their elitism was based more on the precision drill of the early war Zouave regiments than their battlefield performance. Often a regiment would be uniformed as Zouaves as an inducement to enlistment.

Once again, my thanks to Dr. Burns for his interesting article.

WAYNE A. MABB, R.Ph.

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* Burns, S. B.: Early medical photography in America (1839-1883); VI. Civil War medical photography, New York State J. Med. 80: 1444 (Aug.) 1980.

First Sergeant, 108th NYVI
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To the Editor: I sincerely thank Mr. Mabb for the corrections to my paper. Unfortunately some of my photo caption information came from Miller's *Photographic History of the Civil War (1911)*, which I have since learned has numerous errors. The captions for the 57th N.Y. photograph, as well as, 'the Fredericksburg' one comes from this book. Please note I did state it was the Wilderness Campaign. Fortunately I was able to check most of the other captions against government archival sources.

The figure 3 corrections that you make regarding uniforms are obviously correct. The error, in this case, however was one of typesetting. Your statement as to the man's race is incorrect however. The man is indeed black and probably a member of the U.S. Colored Troops. The wet plate photographic process was overly sensitive to the blue-violet end of the visual spectrum and although perhaps "greying" his blue uniform, did not "blacken" him. Examination of various government archives having this particular photograph denotes his being "colored." In all probability, as this was a posed view, and frequently published, it could have been taken as a propaganda photograph. The recruitment of blacks for Federal Service is well known. Besides the 179,000 blacks actually in the army, thousands of freed slaves helped their liberators in various labor positions, and so forth.

Appreciating Mr. Mabb's comments.

STANLEY BURNS, M.D., F.A.C.S.
30 East 60th Street
New York, N.Y. 10222

Early medical photography*

To the Editor: All of us get professional journals to read and yet I don't believe we look forward eagerly to receiving them. The receipt of the journals usually means more work, more reading, more note taking, and more things to assimilate and put into our memory banks. Yet I believe that I can honestly state that I looked forward to the issues of your journal containing the articles on "Early Medical Photography in America" by Stanley B. Burns, M.D. I am not a physician but I am an amateur photographer and these articles were ones I looked forward to reading. But it was much more than just reading and enjoying the articles. The pictures accompanying each article were very good, both as examples of the art of photography of the time discussed and as illustrative examples for the contents of the articles. I am eagerly awaiting the final article in the series, No. VII. Dr. Burns is to be warmly congratulated on the excellence of this series.

As a scientist and a teacher in the basic sciences at Downstate, I find that I need to examine each issue of your journal. There is always something useful to be incorporated into the lectures which I give to the first year students. I need only mention some recent issues to demonstrate what I mean. In the March, 1980, issue is an excellent review on glycosylated hemoglobin. In the April, 1980, issue there is a well-documented, interesting review of the molecular biology of hepatitis B virus. In the November, 1980, issue there is a superb discussion of the usefulness of the electron microscope in diagnostic pathology. The cry, in recent years, has been for "RELEVANCE in teaching." The New York State Journal of Medicine contains much that is relevant to contemporary medicine and the basic sciences.

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To the Editor: It was indeed a pleasure to receive Dr. Kirschenbaum's letter! As a busy ophthalmologist and family man, finding the time to research and write the series of articles has been most difficult. I have spent over three years in this effort. Receiving letters such as his make it all worthwhile.

Part VII has been so long in coming because of two articles I was asked to write and which may also interest him. The first, titled "The Doctors," appeared in the November, 1980, *ARTFORUM*, vol. 19, no. 3, p. 71. I was honored that this journal of contemporary art wanted to use my early photographs of physicians to help illustrate a special editorial issue dedicated to putting the human body back into American art. The second article titled "A Pictorial History of American Medicine," appeared in the January, 1981, issue of *M.D. Magazine*, vol. 25, no. 1, p. 113. It tells part of the story of how I acquired my collection of medical photographs and documents some of my discoveries.

Again, I truly appreciate Dr. Kirschenbaum's letter.

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Annotations of Books Received*

TEMPOROMANDIBULAR JOINT

Compendium. Volume Fifteen, 1980. Edited by Richard E. Coy, B.S., D.M.D., M.S. Chicago, American Equilibration Society, 1980. Illustrated, 479 pages. Hardcover.

Collected articles of the society "Organized for the Study of Lesions in the Temporomandibular Joint and Related Structures."

EVARTS, JOSEPHINE, M.D.

Dr. Josephine Evarts: A Tribute. By Eunice Trow-

continued on page 1026

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* Books received for review are acknowledged promptly in this column. No other obligation is assumed for the courtesy of those sending them for this purpose. Selection for review is made on the basis of merit and reader interest.

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bridge and April Radbill, New Britain, Conn., 06052, 1981.

The unique career of a Dutchess County, N.Y., physician, written in honor of the fiftieth year of her practice.

CANNABIS ABUSE

Cannabis in Costa Rica. Edited by William E. Carter. Philadelphia, Pa., Institute for the Study of Human Issues, 1980. Illustrated, 331 pages. Cloth, $17.50.

Report of a study of chronic marihuana use.

PHARMACY—LEGISLATION & JURISPRUDENCE

The Pharmacist and the Law. By Steven Strauss, Ph.D., R.Ph. Baltimore, Williams & Wilkins, 1980. Paperback, 124 pages. Price, $9.95.

Selected readings covering a wide range in pharmacy law.

BLOOD VESSELS

The Management of Acute Vascular Injuries. By Malcolm O. Perry, M.D. Baltimore, Williams & Wilkins, 1981. Illustrated, 148 pages. Cloth, $23.

A concise, logical approach to the diagnosis and management of patients with multiple vascular wounds.

NEOPLASMS

Cancer Risks by Site. Edited by Takeshi Hirayama, John A. H. Waterhouse, and Joseph F. Fraumeni, Jr. Geneva, Switzerland, International Union Against Cancer, 1980. UICC Technical Report Series, volume 41. Paperback, 217 pages. Price, Swiss Francs, 20. (Available from above organization at 3 Rue du Conseil General, Geneva, 1205)

A systematic summary of salient epidemiological features of cancers of all sites and an outline of the risk factors that may be responsible for the observed variations.

PEDIATRICS

Practical Points in Pediatrics. Third edition. By Raymond M. Russo, M.D., and Vymutt J. Gururaj, M.D. Garden City, N.Y. Medical Examination Publishing Co., Inc., 1981. Paperback, 438 pages. Price, $13.75.

A practical guide to the identification and care of pediatric problems, for the student, housestaff, and general practitioner.

NUTRITION

Nutrition and Medical Practice. Edited by Lewis A. Barness, M.D., with Yank D. Coble, Jr., M.D., Donald I. MacDonald, M.D., and George Christakis, M.D. Westport, Conn., Avi Publishing Co., Inc., 1981. Illustrated, 408 pages. Hardcover, $19.50.

continued on page 1028

Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptom
anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated
stress of everyday life usually does not require treatment with an anxiolytic.
Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by syst
atic clinical studies Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucom

Warnings: Not recommended in primary depressive disorders or psychoses. As with all C
acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished
erance for alcohol and other CNS depressants.
Physical and Psychological Dependence: Withdrawal symptoms like those noted with ba
turates and alcohol have occurred following abrupt discontinuance of benzodiazepi
(including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Ad
tion-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveilla
when on benzodiazepines because of their predisposition to habituation and dependen
Withdrawal symptoms have also been reported following abrupt discontinuance of benz
azepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.
For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid o
sedation. Terminate dosage gradually since abrupt withdrawal of any antianxiety agent
result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia
occasional convulsions. Observe usual precautions with impaired renal or hepatic funct
Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that loraze
has not been shown of significant benefit in treating gastrointestinal or cardiovascular com
nent. Esophageal dilation occurred in rats treated with lorazepam for more than 1 yea
6mg/kg/day No effect dose was 1.25mg/kg/day (about 6 times maximum human therape
dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 mo
of first observation. Clinical significance is unknown; but use of lorazepam for prolon
periods and in geriatrics requires caution and frequent monitoring for symptoms of upper
disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have
elevations of LDH. As with other benzodiazepines periodic blood counts and liver function
are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depres
effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerge
rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY Reproductive studies were performed in mice, rats, and 2 strains of rab
Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastrosch
malformed skull and microphthalmia) were seen in drug-treated rabbits without relationsh
dosage. Although all these anomalies were not present in the concurrent control group,
have been reported to occur randomly in historical controls. At 40mg/kg and higher, there
evidence of fetal resorption and increased fetal loss in rabbits which was not seen at l
doses. Clinical significance of these findings is not known. However, increased risk of con
tal malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam
meprobamate) during first trimester of pregnancy has been suggested in several stu
Because use of these drugs is rarely a matter of urgency, use of lorazepam during this pe
should almost always be avoided. Possibility that a woman of child-bearing potential ma
pregnant at institution of therapy should be considered. Advise patients if they become p
nant to communicate with their physician about desirability of discontinuing the dru
humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam an
glucuronide

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like
benzodiazepines. As a general rule, nursing should not be undertaken while on a drug s
many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and gene
disappear on continued medication or on decreasing dose. In a sample of about 3,500 anx
patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6
weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression,
sea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms,
function disturbance, various gastrointestinal symptoms and autonomic manifestations.
dence of sedation and unsteadiness increased with age. Small decreases in blood pres
have been noted but are not clinically significant, probably being related to relief of anxiety

Overdosage: In management of overdosage with any drug, bear in mind multiple agents
have been taken. Manifestations of overdosage include somnolence, confusion and c
Induce vomiting and/or undertake gastric lavage followed by general supportive care, mon
ing vital signs and close observation. Hypotension, though unlikely, usually may be contr
with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined

Ativan® ⓘⓥ
for (lorazepam)
Anxiety

Dosage: **Individualize for maximum beneficial effects. Increase d
gradually when needed, giving higher evening dose before increas
daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosa
may vary from 1 to 10mg/day in divided doses. For elderly or deb
tated, initially 1-2mg/day; Insomnia due to anxiety or transient sit
tional stress, 2-4mg h.s.**

How Supplied: **0.5, 1.0 and 2.0mg tablets.**

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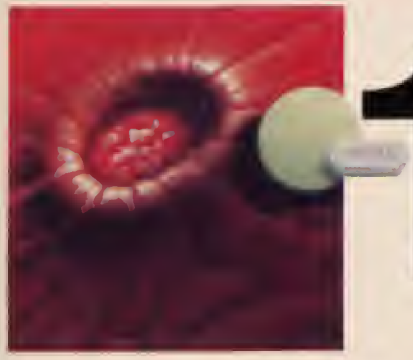
Philadelphia PA 19101

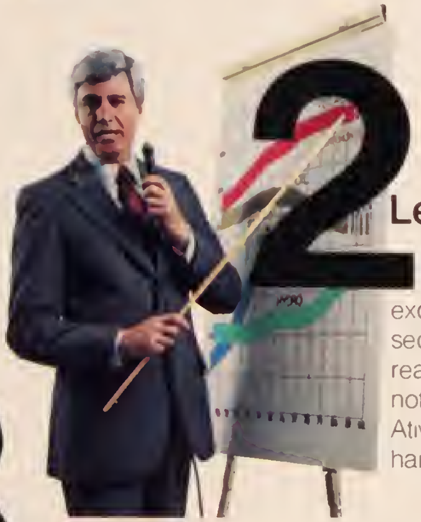
Four practical reasons to prescribe Ativan® (lorazepam) ⓒIV for Anxiety*



1

No interaction with more than 300 drugs†

In clinical studies, Ativan was given concomitantly with hundreds of medications, including gastrointestinal and cardiovascular, with no reported interactions. Whereas the interaction of diazepam and cimetidine has been shown to cause increased sedation in patients taking both drugs, the clearance of Ativan is not delayed by Tagamet.‡



2

Lets most patients stay active

Long-acting benzodiazepines have long-acting metabolites with activity which can produce excessive accumulation that may lead to unwanted sedation. Ativan® has no active metabolites, reaches steady state in 2 to 3 days and usually does not cause oversedation. Also, the shorter half-life of Ativan is consistent with b.i.d. dosage, so drug hangover is seldom a problem the next morning.

3

Not appreciably affected by aging

Unlike the long-acting benzodiazepines—diazepam ⓒIV, chlordiazepoxide ⓒIV, clorazepate ⓒIV and prazepam ⓒIV—the metabolism and clearance of Ativan are not appreciably affected by the aging process.

4

Not significantly affected by liver dysfunction

Ativan® is metabolized in one simple step to an inactive glucuronide; its absorption and excretion are not significantly altered by cirrhosis or hepatitis. By contrast, the metabolism of diazepam and chlordiazepoxide has been reported to be significantly altered in patients with liver dysfunction.

See important information on following page.

Wyeth Laboratories
Philadelphia, PA 19101

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[*] Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic.

[†] All benzodiazepines, however, produce additive effects when given with CNS depressants, such as barbiturates or alcohol.

[‡] Tagamet (cimetidine) is a registered trademark of Smith Kline & French Laboratories, Division of SmithKline Corporation

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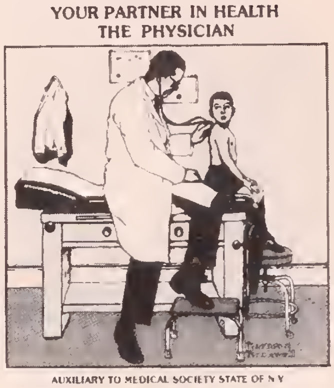
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Needed information in a convenient form—for the student and the practitioner.

NEOPLASMS

Fundamentals of Oncology. Second edition. By Henry C. Pitot. New York, Marcel Dekker, Inc., 1981. Illustrated, 291 pages. Paperback, $16.50.

A revised and expanded edition of the textbook on tumors.

DRUG THERAPY

Prescribing for the Elderly. By Peter P. Lanny, Ph.D. Littleton, Mass. PSG Publishing Co., Inc., 1980. Illustrated, 696 pages. Hardcover, $39.50.

A detailed presentation of the use of drugs by the elderly.

ENZYME INHIBITORS

Enzyme Inhibitors. Edited by Urs Brodbeck. Florida, Deerfield Beach, Verlag Chemie, 1980. Illustrated, 282 pages. Paperback, $42.50.

Proceedings of a meeting held in Basel, Switzerland, on 20 and 21st of March, 1980.

BURNS

The Management of the Burned Child. Edited by P. P. Rickham, W. Sh. Hecker, and J. Prevot. Baltimore, Md., Urban & Schwarzenberg, 1981. Illustrated, 243 pages. Hardcover, $29.50.

The latest advances in the management of burns in children. (Progress in Pediatric Surgery, volume 14 in the series.)

EDUCATION, NURSING

Humanizing Nursing Education: A Confluent Approach Through Group Process. By Virginia G. King, R.N., and Norma A. Gerwig, R.N. Wakefield, Mass., Nursing Resources, 1981. Hardcover, 206 pages.

A new educational approach in nursing education.

NURSING STAFF, HOSPITAL

The All-RN Nursing Staff. Edited by Genrose J. Alfano, R.N. Wakefield, Mass., Nursing Resources, 1980. Paperback, 133 pages.

An advocacy on behalf of all registered nursing staffs in hospitals, for the sake of improvement of the quality of care.

COMMUNICATION

Communicating Effectively. Edited by Ann J. Huntsman, R.N., and Jane L. Binger, R.N. Wakefield, Mass., Nursing Resources, 1981. Illustrated, 220 pages. Paperback.

How to enhance personal skills and how to build organizational channels of communication—handbook for the nursing administrator.

Nursing: the status quo

Nursing, the profession, and it's educational and training programs have long been a misunderstood battlefield—with some critics talking about a subject they know nothing about, and some protagonists maintaining an attitude of blind defense, right or wrong! In some other occupations the differences between the factions might be immaterial, but nursing is an integral part of medical care of the sick and, as such, both unjust criticism and "blind allegiance" can be stultifying, doing neither the patient nor the nursing profession any good! The opposing views should be studied with an open mind.

First, and obviously, those who are critical of nursing are thinking in terms of the "Dark Ages" of nursing when it's work included sweeping the floor; carrying a scuttle of coal to keep the fire going in the stove; dumping the bedpans, and other menial tasks. Conversely, some of the blindly devoted members of the nursing profession can see no need for improvements; no need for further preparation; and they honestly believe, not only that there is nothing (even medically) that they can't do right now, but that they are held back only because of male chauvinism and jealousy of the physicians.

This number may be small, but vocal proselytizers are self-destructive. Their litany at first used to be; "Doctors hate Nurses," but when the daily contact and the literature belied this, they changed to "male chauvinism," but now with so many women in medicine this paean is losing it's punch. Only the "jealousy" cry remains.

Again, obviously, there is much to reconcile, so that in bringing the sincere, rational antagonists together, each shall gain insight from the other for their mutual good and the patients' benefit. The physician and the nurse are (and should be) a team, with each having a sphere in which they "carry the ball." Strangely, some of the opposition against the improvement of the status of nursing comes from within. Some years ago, before the start of the degree program, this writer gave a talk to a graduating nursing class during which he stated that nursing time often was wasted doing things which untrained personnel could do, and he gave as an example, the bedpan—indicating that, aside from noting the stool where indicated medically, for bloody stool, tarry stool, parasites, and so forth, the bedpan then could be emptied and cleaned by an aid. After the graduation exercises, he was practically attacked—BY THE SUPERVISORS—with the accusation of starting a rebellion. This traditional thinking, from both within and without nursing, has hurt the nursing profession considerably.

And again, conversely, we have the more rigid extremist degree—proponents who feel that with a bachelor's degree (4 years of which at least have dealt with general academic—nonnursing—courses, with little if any emergency room, and usually no active operating room or delivery room experience) they are ready to diagnose, treat, and decide on the activities of a critical or postoperative patient. Some nurses even go into private practice, dangerously bordering on the practice of medicine. The more reasonable members of this degree group realize their honest limitations, and that if all this knowledge could be attained and absorbed with a bare exposure during several years of college, with so little clinical exposure, what medical student would spend 12 years after high school, four years in college, four years in medical school, and four years in internship and residency training, and THEN he's just beginning. He'd have to be a very stupid individual to take so long acquiring an education when it could be obtained within about two years in a bachelor's degree nursing course. Nurses, for instance, take histories—they have a long list of prepared questions they ask, but is this "history" taking? To take a proper history there must be sufficient medical background and pathological and physiological training, with specific knowledge of diseases to recognize and ferret out "suspicious clues" among the replies, since even the patient is not aware of the significance of his information.

You cannot get this "sixth sense" of diagnosis from a fixed list of prepared questions, there must be sufficient knowledge of disease symptomatology to suspect a clue when it is casually exposed. Further, some of these (like the green intern) carry a stethoscope and go through the motions of using it. This is all right with something like a blood pressure, where the sounds are easily audible; but it should be realized that even a medical resident or an internist—with 12 years of training still has much to learn of the significance of some of the unusual delicate sounds he hears with the stethoscope. Even cardiologists sometimes disagree on the significance of various valvular sounds, their location, or their possible adventitious nature. When one of these students (or graduates) listens to a heart (beyond the regularity or irregularity of the beat, which can be picked up at the wrist) what conclusions can she draw? Certainly they can learn to pick up (and report) irregularities as long as they don't try to take independent action on what they hear: even a general practitioner sends unusual cases to a cardiologist.

None of this is meant to be critical, but merely to illustrate pitfalls in trying to equate minimal clinical exposure of a degree program, with the old conventional three-year hospital school program which was all clinical with time and opportunity to show what could and couldn't be done (and shouldn't). This is important, for, as mentioned above, nurses are an integral part of the medical team, and it is the rare physician who isn't aware of the results of good nursing care for his patients, either in the operating room or on the floors. Articles have been written by physicians in medical journals lauding nursing efficiency and dedication. They have the realization that they see the patients only a few minutes a day during rounds to direct the treatment, but it's the nurse, in the final analysis, who guides the patient back to health. Many nurses, products of degree programs, have themselves cried out against the dearth of clinical experience, and have spent summers and vacation periods as aids, to gain patient exposure. "Continuing Education" is not enough if the basics are not already there. Some degree nurses object to doing simple things for patients, and indeed, if aids or others are around, they shouldn't have to do so. As one nurse said in a letter to a newspaper: "Whatever one does for a patient's comfort and safety, IS Nursing." This would seem almost rhetorical. Other nondegree registered nurses decry the lack of support and recognition to help them complete their requirements for a degree. As a result they are leaving the profession, adding to the shortage of nurses. This is unfortunate since with their backgrounds, they have much to offer.

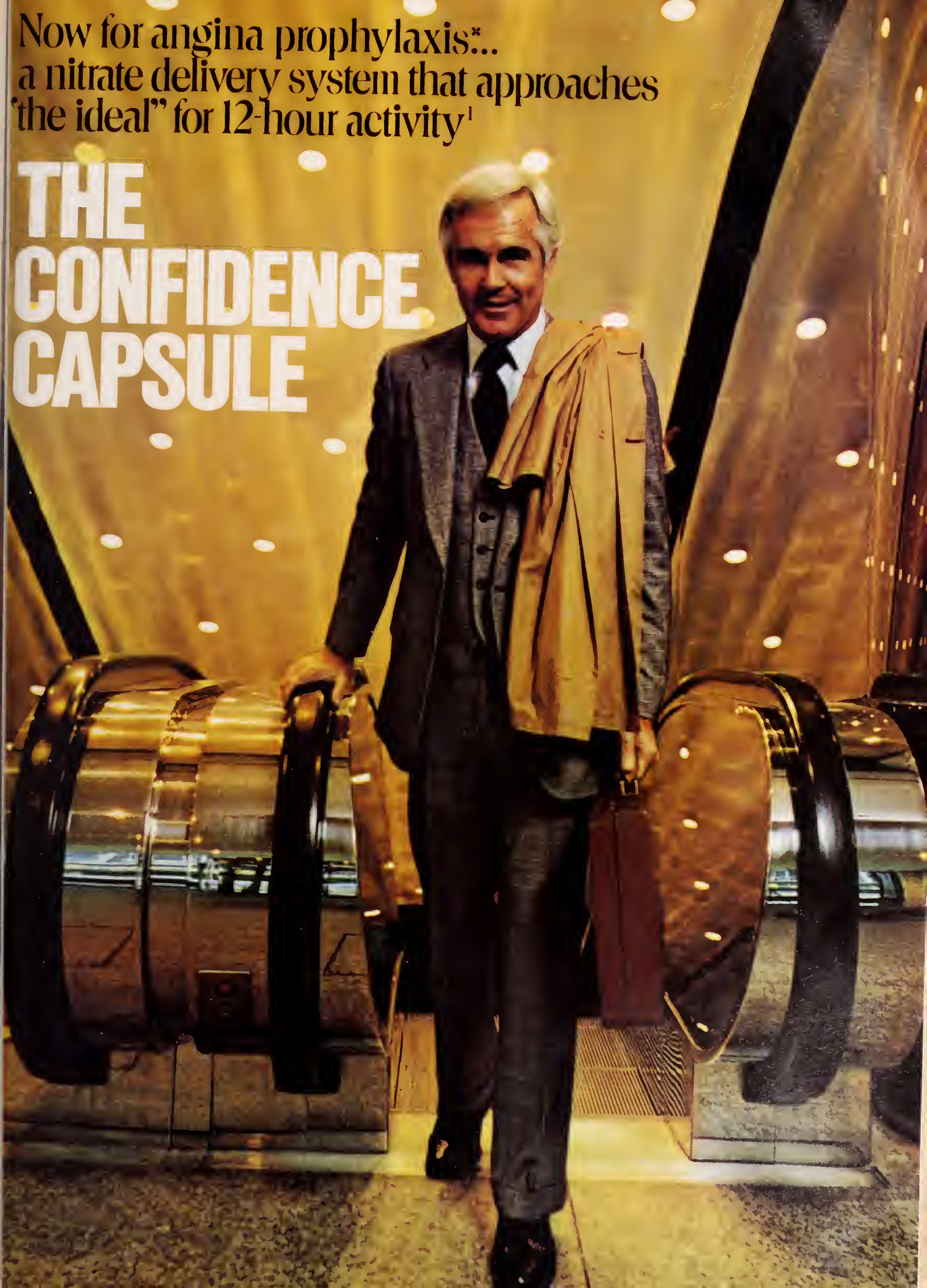
One good suggestion by several degree nurses, who were aware of their shortcomings, is that a five-year course be instituted, in place of the current four-year course, and that it include ALL the three-year conventional program of the hospital schools, plus two years of general academics. This would reconcile the *need* and the *deficiencies*, and would provide much "how to" information to the candidate, in addition some of the "whys." Then, continuing education periodically would be productive—but—salaries MUST be fair and appropriate for the effort and training; some of the hospitals' clean-up and maintenance crews with minimal education and less knowledge get higher pay. This is criminal! A nurse gives her life caring for the sick and saving lives! Unions may be their only defense.

Today, the opportunities for well-prepared nurses is growing to include: recovery rooms, intensive care units, specialized neurological and cardiology teams, disaster units with cardiopulmonary training, and others, plus the augmented operating room, emergency room, and delivery room responsibilities. In the latter, especially, many young physicians in training, unofficially, get their early experience under the sympathetic eye of experienced nursing supervisors.

Most important, meaningless attacks on nurses by some narrow minded physicians are ridiculous as are the categorical denial of all suggestions by some nursing authorities: no one is above improvement or suggestion! Well-prepared clinical nurses are in demand! Some sound reflection is needed by those in position to achieve needed changes, because if clinical work is going to be left to the aids (as it is already in some hospitals) then who needs nurses? The proposed return to primary care is a good step in the right direction . . . but it's just a beginning. It would be good to see a commission set up, of good nursing clinicians of the old three-year schools; some flexible alert representatives of the degree programs and physicians who have had experience and empathy with some of these problems: people of goodwill, with enough "give and take" to reach workable conclusions. The time is NOW!

LESTER J. CANDELA, M.D.
6 Highland Place
Great Neck, N.Y. 11020

Note: The author was director of the Academy of Medicine of Queens for ten years. In addition to working with nurses in the operating rooms and wards for over 40 years, he taught a continuing education course in surgical nursing for about 16 to 18 years. He is married to a nurse. Also, he has a daughter in nursing, a graduate of a university—a four-year degree program, now working at a university. He was chairman of the State Society Nursing Committee for a number of years. He has a keen interest in the "nurse-physician" relationship.



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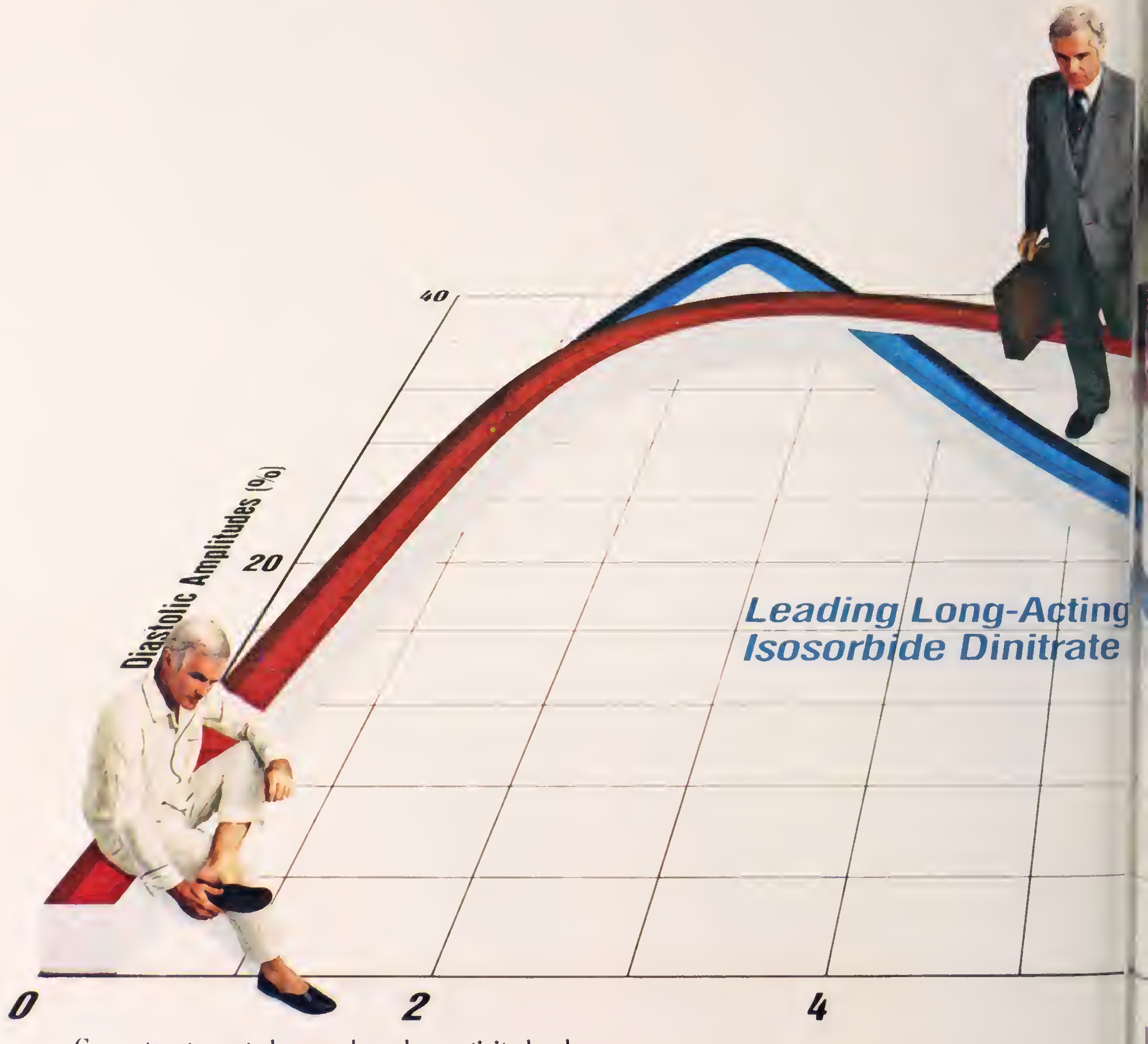

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DILATRATE-SR demonstrated sustained levels of activity compared to the most widely used long-acting ISDN in an evaluation of data measuring diastolic amplitudes,[1] a sensitive measure of nitrate activity.[2]

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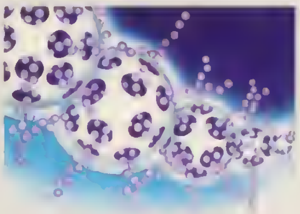

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DILATRATE-SR offers a preferable therapy for long-acting control – with an advanced delivery system.

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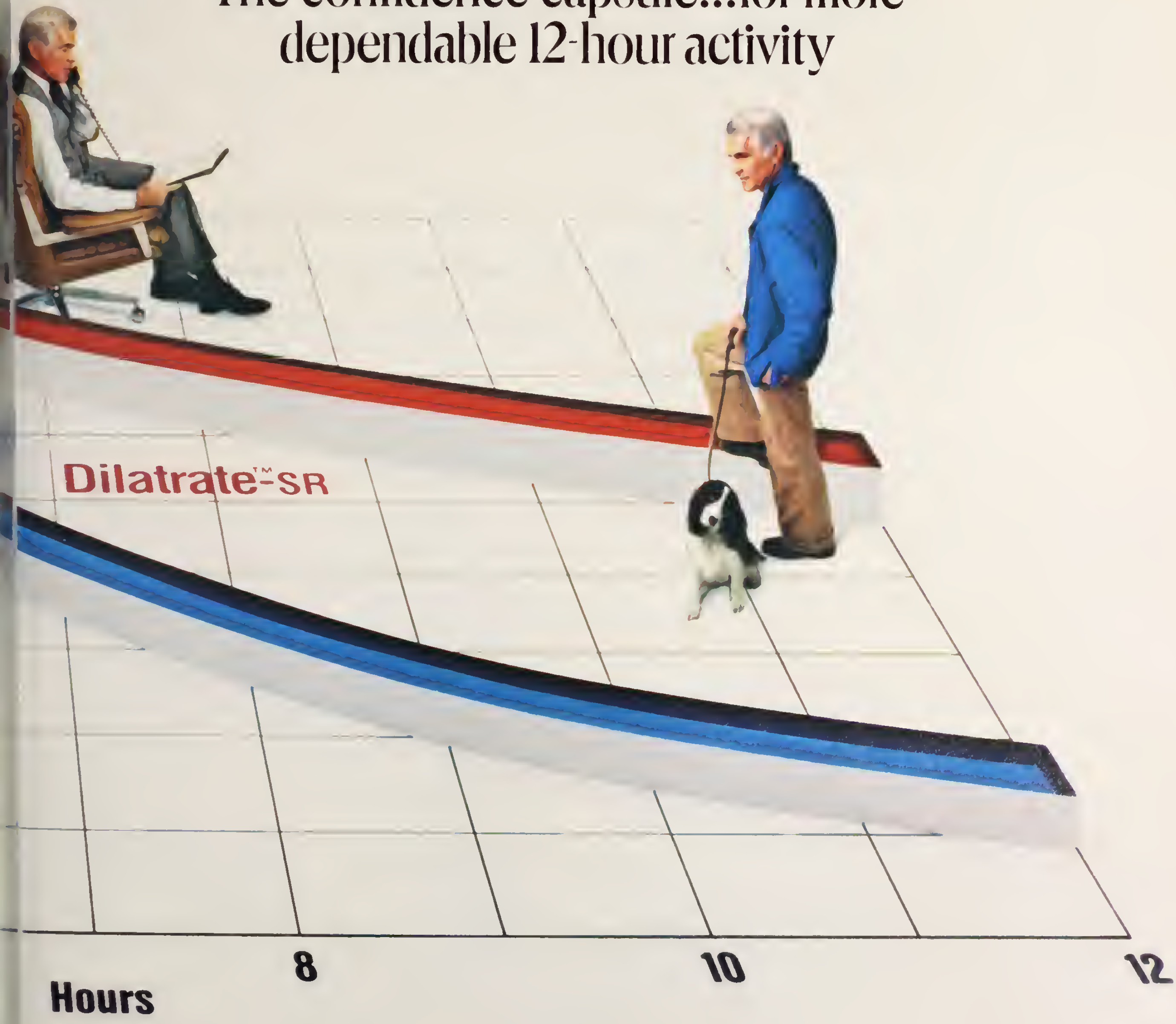
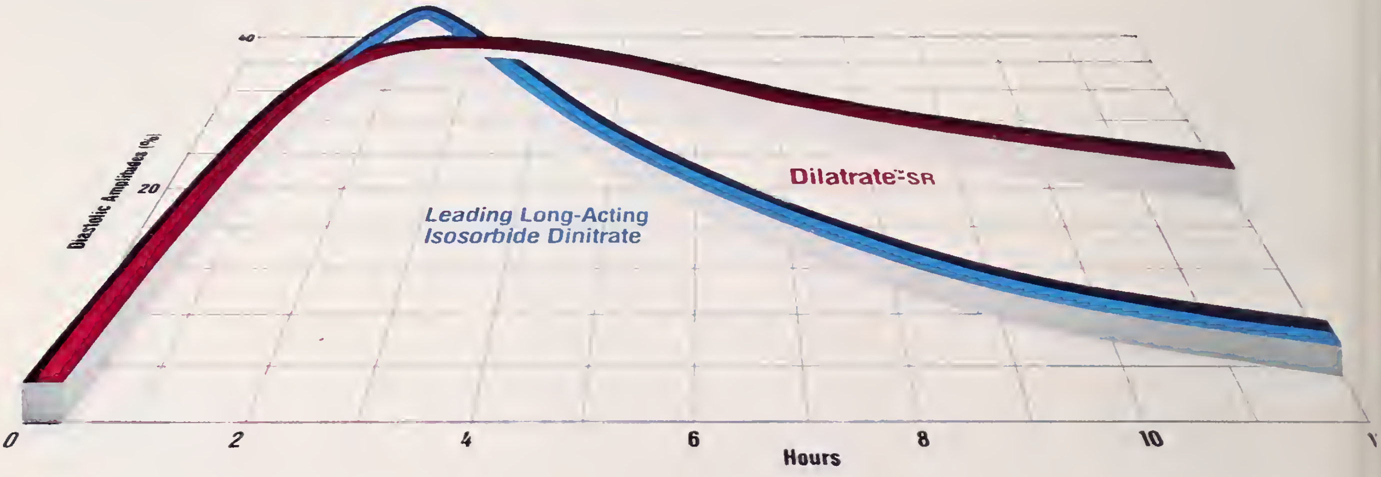
Dilatrate™-SR

(isosorbide dinitrate) 40 mg b.i.d.

The confidence capsule...for more dependable 12-hour activity



Now for angina prophylaxis, Dilatrate™-SR... proven 12-hour activity, when compared with the leading long-acting isosorbide dinitrate product.



Dilatrate™-SR

(isosorbide dinitrate)
40 mg b.i.d.

The confidence capsule

A nitrate delivery system that provides proven 12-hour activity levels

A delivery system with a constant release rate not dependent on gastric pH or enzymes

An advanced delivery system to help angina patients lead a more normal life

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BRIEF SUMMARY

*Indications Based on a review of the drug by the National Academy of Sciences – National Research Council and/or other information, FDA has classified the indications as follows.

Possibly effective For the relief of angina pectoris (pain of coronary artery disease) Dilatrate is not intended to abort the acute anginal episode, but is widely regarded as useful in the prophylactic treatment of patients with angina pectoris.

Final classification of the less-than-effective indication requires further investigation

CONTRAINDICATION: Idiosyncrasy to this drug.

WARNINGS: Data supporting the use of nitrates and nitrites during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety

PRECAUTIONS: Tolerance to this drug, and cross tolerance to other nitrates and nitrites may occur

ADVERSE REACTIONS: Cutaneous vasodilation with flushing Headache is common and may be severe and persistent. Transient episodes of dizziness and weakness as well as other signs of cerebral ischemia associated with postural hypotension may occasionally develop. This drug can act as a physiological antagonist to norepinephrine, acetylcholine, histamine, and many other agents. An occasional individual exhibits marked sensitivity to the hypotensive effects of nitrite, and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration and collapse) can occur even with the usual therapeutic dose. Alcohol may enhance this effect Drug rash and/or exfoliative dermatitis may occasionally occur

For full prescribing information, consult package insert.

References 1 Smolen VF Data on file, Medical Department, Reed & Carnrick 2 Smolen VF Practical Phar-macodynamic Engineering in the Design, Development and Evaluation of Optimal Drug Products, in Beckett AH and Bean HS (eds), Recent Advances in Pharmaceutical Sciences, Vol 5, Academic Press, in press

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Ethics of Recombinant DNA Research and Technology

An assessment of its risks and benefits

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It is clear that the wealth of evidence and expert testimony gathered to date support the conclusion that recombinant DNA research poses no real hazard to public health, laboratory workers, or the environment. The benefits reaped and projected for humanity surpass all unsubstantiated risks, and without question justify continuation of the research. Debate has been protracted because six years ago representatives of the scientific community exercised their responsibility for discreet transmission of conjectural information to an alarmed public.

In order to avert future controversies similar to the one still surrounding recombinant DNA, representatives of the scientific community endeavor to develop mechanisms of effectively communicating the collective judgment of their peers in a manner that enables the public to distinguish rational from irrational views.

Experimental production of recombinant DNA (deoxyribonucleic acid) involves three components: (1) foreign (animal or human) DNA, which is to be transferred; (2) a vector—generally a bacterial virus (bacteriophage) or plasmid (circular bacterial DNA); and (3) a host cell—commonly the bacterium *E. coli* K-12 (*Escherichia coli* Kunin antigen type 12). Restriction enzymes (endonucleases) are used to cut the foreign DNA molecule into sections and remove a segment from the circular plasmid DNA molecule, thereby permitting the union of foreign DNA and plasmid DNA fragments to form a recombinant DNA molecule. This hybrid molecule is inserted in the bacterium, which will thereupon contain, in addition to its own chromosomal DNA, the plasmid DNA bearing specific genes transferred from a higher species. The bacterium can then multiply, make millions of copies of the inserted DNA, and translate the latter's genetic message to produce virtually limitless amounts of proteins, such as hormones and interferon. This series of procedures whereby a new gene-bearing DNA sequence is carried, inserted into, and maintained within a bacterial host which generates a population of identical copies, is termed "molecular cloning."[1] (Fig. 1).

Ethical framework for assessment

The extraordinary efflorescence of science and technology in recent years has rendered virtually impossible maintenance of the traditional separation of the noble conception of science as the disinterested pursuit of knowledge for its own sake from its practical consequences and implications for the common good.[2] Scientific research rests on a strictly objective approach to the analysis and interpretation of nature, but the long-standing recombinant DNA controversy exemplifies emergence from the realm of objectivity into that of values, where startling revelations plead for courses of action affecting the future of human society. In this context, science is concerned with the exploration of truth, but the application of its discoveries, or technology, prizes efficient intervention in nature, where beneficently motivated alterations of metabolic machinery create new strains of bacteria presumed rich with promise for the health of humanity.

Inasmuch as science and technology collaborate in producing things that did not exist previously, the effects of this collaboration on society cannot be reliably estimated without attention to the notion of risk. According to Lowrance,[3] the term risk denotes a quantity compounded of the probability of harmful effect and the magnitude of the consequences of that

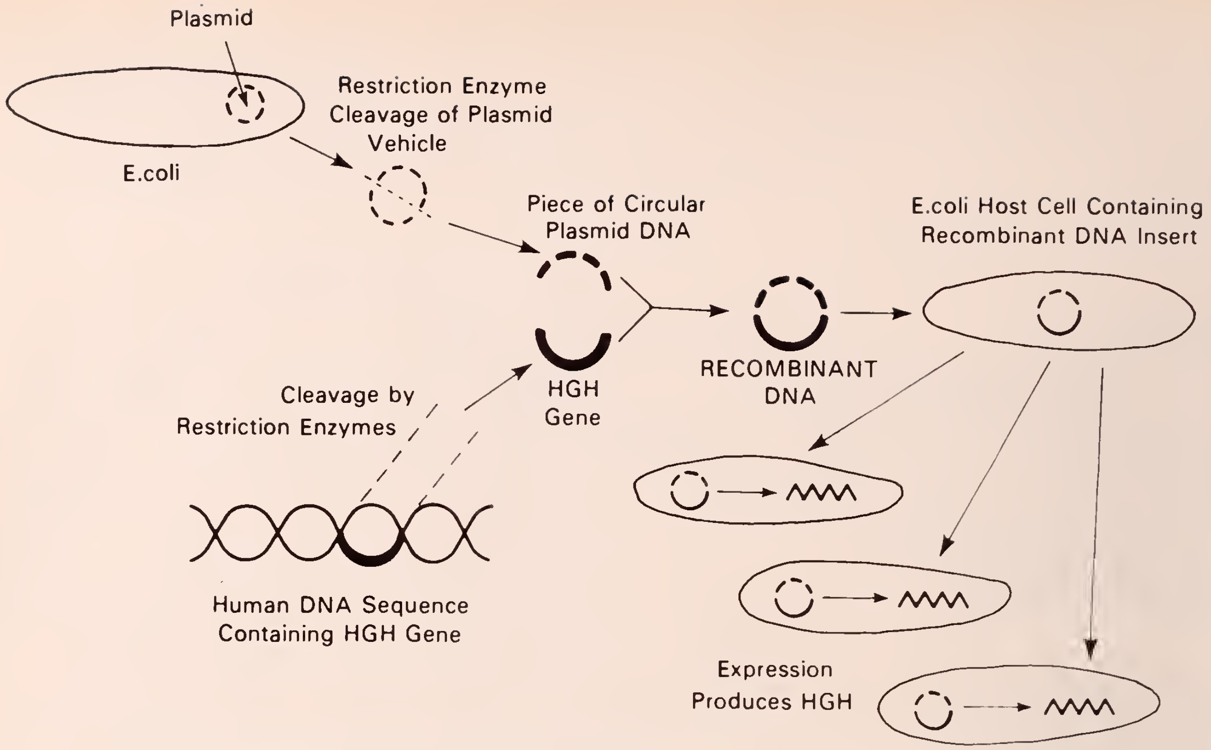
Plasmid
E.coli
Restriction Enzyme Cleavage of Plasmid Vehicle
Piece of Circular Plasmid DNA
E.coli Host Cell Containing Recombinant DNA Insert
Cleavage by Restriction Enzymes
HGH Gene
RECOMBINANT DNA
Human DNA Sequence Containing HGH Gene
Expression Produces HGH

FIGURE 1. Schematic representation of recombinant DNA technique applied to bacterial synthesis of human growth hormone (HGH).[3a]

effect. Acceptability of such risk to society hinges on the informed judgments of those charged with making public policy decisions based on critical review of relevant scientific data. If scientists enjoying freedom of inquiry grounded in the ethical principles of respect for persons and autonomy foresee possible harmful effects of their research on other human beings, the question arises as to whether the anticipated benefits of the research to humanity would offer sufficient compensation to protect their freedom and justify taking the risks. This risk-benefit evaluation constitutes the primary ethical issue prioritizing the principles of nonmaleficence and beneficence within the context of, yet separable from, freedom of inquiry. Respected commentators, like Bok,[4] Carl Cohen,[5] Davis,[6] Gaylin,[7] K. J. Ryan,[8] Stich,[9] to mention but a few, have addressed themselves to this crucial issue.

Questions seeking answers

Bok[4] questions the right of scientists to place specific persons at risk, create randomly distributed risks, or place future generations at risk, for the potential benefits of many. She points out that, in contrast to the freedom of thought and speech guaranteed by institutionalized respect for investigator autonomy, these experiments involve freedom of action, which must be judged by ethical standards common to nonscientific undertakings. The risks to be considered may consist of varying degrees of foreseeable or unforeseen harm arising from the process of executing scientific investigations. Such harm may befall the investigators themselves, their assistants, bystanders, or the population at large. There may be spread of toxic substances, cancer deaths (as in nuclear testing), or unintended effects on the ozone layer. The knowledge derived from scientific experimentation may pose risks of comparable dimensions, such as new weapons for terrorizing populations or toxic side-effects of drugs developed to relieve symptoms of a disease. However, there is much research in which the magnitude and probability of both risks and benefits may be unknown or disputed. If predicted risks from controversial studies are supported by more tenuous evidence, then, as Dworkin[10] has argued, government authorities drafting prohibitive legislation would shoulder a heavy burden of proof requiring a persuasive account of the concrete disasters envisaged, buttressed by a description of methods purported to establish the high probability of such disasters. On the other hand, proponents of research carrying certain risks would be expected to shoulder the burden of proving that such risks are worth taking.

Strategies to consider

Bok prescribes three strategies for coping with moral problems generated by scientific investigations impinging on human welfare:

- Removal of bureaucratic impediments from the conduct of research where the evidence shows that no risk whatever is posed to human beings;
- Imposition of stringent standards clearly prohibiting experimentation declared to be too intrusive, reckless or dangerous to human beings; and
- Taking time to deliberate and determine what forms of public accountability would be sufficient for different levels of risk associated with persistently controversial research.

The reasoning of Carl Cohen[5] to some degree resembles that of Bok when he addresses the risk-benefit issue as part of his critical appraisal of the rationale for principles of prohibition pertaining to either the product or process of research. According to these principles, which could serve as compelling reasons for abridgement of freedom of inquiry, research should not be permitted when:

A. It might result in discovery of knowledge that is wrong for humans to possess (risk of misuse of knowledge);
B. There is any or a moderate probability that the knowledge developed might have very injurious consequences;
C. It aims at development of perfection of instruments for killing or injuring humans;
D. The general sum of risks outweighs the general sum of anticipated benefits.

Cohen rejects (A) on the grounds that there is no body of knowledge unfit for human acquisition, and that the fear of misuse of the recombinant DNA probe into the code of life provides no rational warrant for closing the avenues of exploration. This view is shared by several other commentators, notably Stich[9] and Toulmin.[10] Cohen qualifiedly rejects (B) because the ubiquity of possibly injurious consequences would call for cessation of all research aimed at improving the human condition, and for the further reason that "imagined horribles of unspecified nature and doubtful likelihood" constitute no rational justification for blocking scientific inquiry. Davis[6] and Gaylin[7] allude to such factors as generating antitechnology bias (the "Frankenstein factor") distorting the public debate on recombinant DNA because they go beyond the specific weighing of risks and benefits encountered in other forms of research. On the other hand, Cohen tempers his rejection of (B) by acknowledging that for some research ventures, the probability of disastrous use of products might be so high as to justify prohibition. With respect to (C), Cohen denies applicability to recombinant DNA technology, which does not even faintly resemble the heinous munitions development envisioned. Finally, Cohen concedes the validity of (D) as a general principle but brands it as unsound when applied to recombinant DNA, for two reasons: (1) its key premise makes a stronger claim than supported by the evidence; and (2) an ongoing review process adjusts restriction to the level of risk.

Notwithstanding the issuance by the NIH (National Institutes of Health) of revised Guidelines[11] designed to ensure that experimental DNA recombination will have no ill effects on the researchers, the general public, or the environment, many opponents of the research remain unsatisfied. On balance, both advocates and opponents steadfastly maintain that there are potential risks which may not be outweighed by the anticipated benefits.

K. J. Ryan[8] has impressed on the public the requirement by the principles of respect for persons and beneficence that harms be minimized and sustainable value judgments warranted by the weight of factual evidence.

Kneller[12] has colored his endorsement with virtues:

> If we exercise prudence to minimize damage of technology and courage to maximize its benefits, surely the risk is worth taking.

Stich[9] attributes public apprehension over recombinant DNA research to the unsupported assumption that the economic benefits will be weighed too heavily and potential damage to health and the environment too lightly. Rejecting the notion that the obligation to avoid doing harm is stronger than the obligation to do good, he upholds the utilitarian principle, which prescribes the adoption of policy expected to be most advantageous to the common good. As alternatives to the avoidance of doing harm, Stich opts for either (a) the "weighted-harm principle," whereby anticipated benefits are ignored and a policy or action is pursued with a view to yielding the least expected harm; or (b) adherence to a formal moral principle protecting free inquiry until the negative exceed the positive consequences, thence reversion to the utilitarian principle. This sober equilibration of utilities and disutilities leads to the sensible strategy of endeavoring to prevent improper uses of new knowledge, instead of trying to prevent such knowledge from ever being uncovered.

Davis[6] has pointed out that the moral issue raised by the presumed hazards of recombinant DNA research is serious only if the technical prospects are realistic, and conjectural risk does not provide a suitable model for the problem of technological assessment, which involves real risks. Further, the waning public confidence in the sense of responsibility of scientists, and increased pressure for rigorous external control of their research, will inevitably lead to emphasis on immediately visible benefits and freedom from risk. Such eventualities would threaten intellectual freedom and the creative urge essential to the durability of science. Wildavsky[13] has argued persuasively that paralysis of scientific inquiry due to overcaution could, ironically, lead to the greatest risk of all, namely, impoverishment of future generations denied their rightful choices.

Persistent concerns

Following the Asilomar Conference in February, 1975, discussions of alleged biohazards by molecular biologists did not draw sufficient attention to the fact that the problem of estimating those hazards lay outside their field. Indeed, tackling the problem has since been recognized to depend on input from the disciplines of evolutionary biology, which deals with the survival and spread of novel organisms in nature, and epidemiology, which addresses the genetic and ecological factors influencing the spread of agents of disease. This state of affairs has illuminated the need for fruitful exchanges of knowledge between basic bacterial and molecular geneticists, on the one hand, and clinically oriented experts in the biology of infectious diseases, on the other.

Rowe[14] forcefully reminds us that the NIH Guidelines were not originally instituted in response to any factual data supporting a real biohazard of recombinant DNA research, but only to concerns about hypothetical scenarios. At this writing, there are still no data indicating a real hazard, the Guidelines have been considerably relaxed, exemptions are multiplying, and pressure is mounting to do away with these restrictions altogether.[14] Although apprehension on the part of both the public and scientific community has notably diminished of late, opponents and critics continue to fuel the recombinant DNA debate. Among the more vociferous of these in the recent past may be cited Chargaff,[15] Sinsheimer,[16] Hubbard,[17] Lederberg,[18] and Beckwith.[19]

The following six conjectural risks, in the approximate order of their perceived gravity, have crystallized from the maelstrom:

- Risk of producing a harmful (pathogenic) organism;
- Risk of infecting laboratory workers;
- Risk of spreading in the natural environment so as to initiate an epidemic (disruption of ecological equilibria);
- Risk of long-term evolutionary danger;
- Risk of misuse of genetic engineering in man;
- Risk of producing autoimmune diseases.

Growth of ethical acceptability

It is the task of the instant section of this paper to cogently demonstrate by means of sound reasoning that established scientific theories and factual data amassed thus far considerably attenuate all of the above alleged risks of recombinant DNA research and technology. Subsequently, evidence will be cited to support the thesis that both achieved and expected benefits of the recombinant DNA technique far outweigh the postulated risks.

Conjectural risks

Producing a harmful (pathogenic) organism. As part of a brilliant essay, Davis[6] explains why this risk has been enormously exaggerated. Mammalian cells have a million gene equivalents of DNA, of which only a few would be inserted into any bacterial recombinant. Hence, even if the genes for a tumor virus were present in the donor cells, the probability of picking them up, without selecting for them, is very low. Further, natural bacterial inhabitants of the human gut are constantly exposed to fragments of host DNA released by death of cells lining the gut. This DNA undoubtedly enters some of the 10^{22} bacteria excreted by the human species every day. If naturally occurring recombinants thus formed are causing transient epidemics, they have escaped everyone's attention. It is very unlikely that laboratory recombinant DNA experimentation involving 10^{10} to 10^{12} bacteria would have any effect whatever on this natural process.

The first sizable mass of concrete evidence attesting to the innocuousness of the enfeebled *E. coli* K-12 strain containing recombinant DNA was presented in July, 1977, to Donald Fredrickson, M.D., Director of the NIH, by Sherwood Gorbach, M.D., Chairman of the Interdisciplinary Working Group at Falmouth, Massachusetts:[20]

> The participants arrived at unanimous agreement that *E. coli* K-12 cannot be converted into an epidemic pathogen by laboratory manipulations with DNA inserts. On the basis of extensive studies already completed, it appears that *E. coli* K-12 does not implant in the intestinal tract of man. There is no evidence that nontransmissible plasmids can be spread from *E. coli* K-12 to other host bacteria within the gut. Finally, extensive studies in the laboratory to induce virulence of *E. coli* K-12 by insertion of known plasmids and chromosomal segments coding for virulence factors, using standard bacterial genetic techniques, have proven unsuccessful in producing a fully pathogenic strain.

Further, the report of this unanimous consensus development conference was highlighted by the following concluding remarks from participants:

Fieter[21] stated:

> . . . we have been unable to implant into the intestines of germ-free mice the enfeebled *E. coli* strain χ-1776. After introduction of 10^6 organisms via the drinking water no viable bacteria could be recovered from the gut of these animals on subsequent days. This strain is the only enteric bacterium I have encountered that cannot colonize the intestine of germ-free animals. It is also the only strain certified by the NIH for use as an EK2 bacterium in recombinant DNA work . . . . One may conclude that one of the various arguments implying terrifying consequences of recombinant DNA research cannot withstand thorough examination of facts well known to those who study infectious bacteria.

Øiskov[22] had this to say:

> . . . several of the recognized surface antigens play a role in virulence . . . . It is unlikely that the addition of a single factor (i.e., a recombinant DNA insert) could convert a nonpathogenic organism to a virulent strain.

Formal and Hornick[23] concluded:

> . . . since invasive-type pathogenicity is determined by multiple genetic loci, we consider it unlikely that random insertion of foreign DNA in the *E. coli* K-12 genome could supply all genetic information necessary to convert this organism into an invasive enteric pathogen.

The sanguine conclusion of the Falmouth Meeting was extended to recombinant organisms carrying viral inserts at the NIH/EMBO* Animal Virus Workshop in Ascot, England (January, 1978),[24] and has been confirmed for *E. coli* K-12 by the Report presented to the Risk Assessment Subcommittee of COGENE (Committee on Genetic Experimentation of the International Council of Scientific Unions) in London (March 30, 1979).[25]

Risk assessment

Polyoma viral DNA. Israel, Chan, Rowe, and Martin[26,27] have recently published two reports showing that polyoma-containing recombinant hybrids or hybrid-containing *E. coli* χ-1776 are either noninfectious or less infectious in mice than the virus itself, thereby lending support to the conclusions from the Ascot Animal Virus Workshop.

Rosenberg and Simon[28] have criticized the methodology of Rowe and Martin on the ground that, because the polyoma recombinants were constructed with enzymes that cleave polyoma DNA within a transcriptional region, a part of their genetic information was disjoined from its control region, such that these recombinants were incapable of complete genetic function, which includes capacity to induce tumor formation. Hence, these microbial geneticists claim that the Rowe and Martin test system conveys a false sense of security by failing to assess the possibility that tumor viral genes present in recombinants might be able to function if the recombinant molecule found its way into a mammalian cell. Later on in their presentation to the recombinant DNA advisory committee (RAC), Rosenberg and Simon question the adequacy of current Rowe and Martin tumor induction tests involving injection of hamsters with *E. coli* containing polyoma DNA recombinants, and recommend for better reassurance about hazards the desirability of carrying out more direct investigations of malignant cell transformation by the recombinants in a tissue culture system.*

The author of this article makes no claim to practical expertise in microbial genetics, molecular genetics, viral oncology or the biology of infectious diseases, but suspects that the critique of Rosenberg and Simon may have been at least partially invalidated by a passage in the brilliant exposition of Davis:[6]

> . . . these (tumor virus) particles have a special coat that protects the DNA within and also facilitates its entry into susceptible animal cells. Viral DNA in a bacterial plasmid, in contrast, would presumably have to become free before it would enter a human cell. In the test tube this is a very much less efficient process than viral infection of a susceptible cell, by many decimal orders of magnitude, and in the gut it would be rendered even less efficient by the rapid enzymatic digestion of free DNA. It is therefore hard to imagine that viral DNA in a bacterium would be nearly as hazardous as the same DNA in complete viral particles.

Infecting laboratory workers. Evidence from numerous authoritative sources, including Davis,[6] Rowe,[14] the Report by Richmond to the COGENE Risk Assessment Subcommittee,[25] and Curtiss[29] indicates that, with prudent adherence to the basic principles of microbiological laboratory safety[30] as well as the containment measures stipulated by the NIH Guidelines, the danger of significant laboratory infection by the certified EK2 strain derived from *E. coli* K-12 is vanishingly small.

Davis makes the following persuasive points:

A. Nearly all 6,000 cases of laboratory infection ever recorded were due to respiratory agents spread by droplets. By contrast, enteric infections arise from swallowing contaminated food. These can be averted by not pipetting by mouth and by not eating in the laboratory;

B. Strain K-12 of *E. coli*, used in all current work with recombinant DNA, was originally isolated from a patient at Stanford Hospital in 1922. During the ensuing 57 years, it has undergone a series of mutations adapting it to artificial laboratory media at the cost of deadaptation to the human gut;

C. Biologic containment prescribed by the NIH Guidelines adds a large safety factor by depriving the EK2 strains of the growth factors thymine, a constituent of DNA, and diaminopimelate, a constituent of the cell wall, required by their mutational defects. Without these factors, the strains are coded for self-destruction so that they quickly burst. Further, they are ultrasensitive to disintegration by bile salts in the human gut. The biologic containment and mutational defects also prevent transfer of plasmids carrying recombinant genes.

Extensive studies by Richmond[25] of 64 laboratory personnel working with *E. coli* for 24 months in Bristol, 12 months in London, and 12 months in Seattle revealed no evidence of infection by bacterial strains or plasmids.

However, an exception to point (C) was reported by Levy,[31] who studied the survival of χ-2236 (a derivative of χ-1776 containing plasmid pBR322) following ingestion of $<10^{10}$ cells in milk by human volunteers at Tufts-New England Medical Center Hospital. Although analysis of subsequently collected stool samples suggested that the pBR322 had slightly increased the survival of χ-1776 in the human gut, the increase was not deemed significant, and in no case was there detectable mobilization of the plasmid.

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* Rosenberg and Simon had criticized Israel, Chan, Martin and Rowe, whose methodology did subsequently publish in a 1979 issue of *Science* an article presenting evidence to show that inoculation of baby hamsters with 2×10^8 live cells of E. coli χ-1776 carrying the complete genome of polyoma virus in a recombinant plasmid failed to induce tumors in any of 32 recipients. Thus, Israel et al. rebutted the critique of Rosenberg and Simon, and strengthened the invalidation of Davis.

Initiation of an epidemic. Again, Davis[6] makes several reassuring points:

- Since the envisaged recombinants are all genetically 99.9 percent *E. coli*, which is a normal inhabitant of the gut, the only 0.1 percent foreign DNA, it is virtually inconceivable that these could radically expand their habitat beyond the confines of the gut;
- Modern sanitation provides immeasurably better protection against enteric pathogens than against respiratory agents responsible for nearly all laboratory infections;
- A bacterium containing a tumor virus genome would be severely hampered from spreading because the viral DNA would have to get out of its bacterial host cell and into human cells by means of an extremely inefficient process;
- The foregoing three considerations, coupled with the excellent record of laboratories in avoiding substantial epidemics, diminish the risk of epidemic from a recombinant to a point far below that conceivable from cultivation of known pathogens in laboratories.

Rowe[14] points out that the *E. coli* K-12 derivative plasmid cloning vectors possess extensive genetic and functional deletions inhibiting their mobilization and transfer to another host. Similarly, phage lambda vectors pose no concern because their infectivity requires aerobic conditions (presence of oxygen) which do not obtain in the gastrointestinal tract, and further, would be incapable of destroying another host to which they gained access.

The above considerations preclude any realistic foundation for public anxiety over the conjectured risk of an epidemic from *E. coli* containing recombinant DNA.

Long-term evolutionary danger. Chargaff[15] is particularly ominous in his predictions concerning "irreversible pollution of the biosphere," and Sinsheimer[16] questions the moral right to breach the barrier between prokaryotes and eukaryotes, since "the consequences are unforeseeable."

By way of rebuttal, Rowe[14] argues that the recombinant DNA inserts constitute excess genetic baggage, and, consequently, will be the victims of negative selection because they offer no advantage to their bacterial hosts in the competition for survival. This point is supported by the results of competition experiments between normal K-12 and K-12 carrying recombinant plasmids, as well as between recombinant and wild-type lambda phages, consistently showing that recombinants do not have positive selection.

Davis[6] refutes the Sinsheimer conjecture by pointing out that there is no evidence suggestive of any barrier between prokaryotes and eukaryotes. Indeed, eukaryotic cells contain mitochondria (subcellular particles engaged in energy metabolism), and a series of articles have been published in reputable biology journals concerning the evolution of these particles from prokaryotes. The fertility barriers established between species do not function to prevent the formation of monsters which might prevail in the Darwinian struggle, but sheerly to avoid wasteful matings resulting in nonviable products. Recombinant DNA research does not constitute ominous meddling with nature, given mankind's colorful history of successful cloning and grafting plants, domesticating animals and plants, and converting forests into fields. Artificial recombination offers a potential source of new variation, which could scarcely affect the biosphere as profoundly as an intrusive supplanting of natural by artificial selection, which is altogether extraneous to the recombinant DNA debate.

Misuse of genetic engineering in humans. Sinsheimer's[16] suggestion that the study of recombinant DNA in bacteria is the beginning of a genetic engineering that will ultimately be extended to man is utterly irrelevant to the alleged hazards of the technique, and it betrays lack of understanding of both its nature and its applications. DNA recombinant molecules are formed within bacterial hosts, without any intention of introducing into man this genetic material from the opposite end of the evolutionary spectrum. The medical aim of genetic engineering in man is gene therapy, which is now feasible owing to recent advances in recombinant DNA technology intended to correct human genetic disorders. This innovation, to be discussed in the section on "benefits," should not be confused with human cloning, which avoids genetic recombination and has the potential for macabre social abuses.

Misunderstanding of the applications of recombinant DNA research may also have generated the fear that manipulation of genes directing the morphogenetic development of the human brain might enable a tyrant to program the personalities of his subjects. The imperfect state of genetic technology simply renders impossible manipulation of DNA for redirection of brain circuitry. Other technologies, such as hypnosis, psychosurgery (functional neurosurgery), selective breeding, and artificial insemination are available for artificial molding of personalities, but it is unlikely that they will be exploited for programs in human eugenics.

Producing autoimmune diseases. Beckwith[32] and King[33] have expressed concern that certain products of recombinant DNA technology might conceivably overcome human tolerance barriers and cause autoimmune disease—an eventuality not covered by the current NIH Guidelines.

Beckwith's conjecture. Beckwith[32] cites the use of recombinant DNA techniques at the University of California San Francisco Medical Center, Harvard University, and the Pasteur Institute to construct *E. coli* strains producing hybrid proteins between the peptide hormones insulin and/or somatostatin and bacterial proteins. He fears that modification of the hormone by attachment to a bacterial protein might so alter its antigenicity as to trigger a deleterious autoimmune response in humans receiving the hormone as therapy.

Refutation. The eminent immunologists Benacerraf,[34] Talal[35] and Dixon[36] contend that Beckwith's concern is grossly exaggerated, largely because he confuses the notion of an innocuous antibody response with a true autoimmune disease, which has pathologic sequelae.

Benacerraf[34] concedes the possibility of producing antibodies against hybrid proteins, but they would have to be part of an appropriate immunization procedure involving bacterial adjuvants and other foreign components. He dismisses the likelihood that hybrid proteins with hormonal activity might cause autoimmune disease, and cites systemic lupus erythematosus and acute glomerulonephritis as specific examples of immune complex (antigen-antibody complex) diseases believed due to immunologic imbalance of the thymus gland. These immune complex diseases have multiple antigenic components, and it is unlikely that the hormonal hybrid proteins harvested by recombinant DNA technology would constitute a major component. This 1980 Nobel laureate also points out that millions of human diabetics treated with mammalian insulin do form antibodies, with no pathologic consequences, but this is negligible when compared with the overriding benefit.

Dixon[36] explains that the bacterial protein-polypeptide hormone combinations troubling Beckwith are not significantly antigenic. Rather, the lipopolysaccharide constituents of the *E. coli* cell wall are more likely to elicit an untoward reaction. But these complex carbohydrate constituents are lacking in the enfeebled K-12 strains.

King's conjecture. King[33] speculates that the foreign proteins borne by chimeric *E. coli* strains with recombinant DNA inserts might be responsible for an autoimmune disease involving exposure to bacterial antigens cross-reacting with human antigens. He cites specific examples of immune diseases following bacterial infections: rheumatic fever and acute glomerulonephritis following streptococcal infections, inflammatory bowel disease due to intestinal *E. coli* strains, and 130,000 nosocomial (hospital) infections caused by *E. coli* each year.

Refutation. Talal[35] believes that there are very strong constraints against the development of autoimmune disease in response to *E. coli* strains carrying products coded for by recombinant DNA, and identifies the secretory immunoglobulin A system in the human gastrointestinal tract as a strong barrier against immunity to bacterial or ingested products.

Dixon[36] cites published data indicating that poststreptococcal glomerulonephritis does not involve production of autoantibodies against the kidney, and reiterates the fact that production of autoreactive antibodies is not synonymous with autoimmune disease. Further, he emphasizes the point that if one wanted to use *E. coli* strains carrying recombinant DNA products to intentionally produce an autoimmune disease, one would have to inject them parenterally together with a strong adjuvant as part of a complex immunization procedure which is simply not duplicated under natural circumstances. Hence, the likelihood of pathologic consequences from exposure to hypothetical cross-reacting antigens is quite remote.

Paul and Asofsky[37] admit the possibility of risk from association of a human or cross-reactive protein with a bacterium possessing a potent lipopolysaccharide, but contend that the enfeeblement of *E. coli* K-12 renders it capable of eliciting only an extremely limited amount of autoantibodies with no immunopathologic consequences.

In light of the above, and in the absence of any evidence suggestive of real hazard, Rowe[14] concludes appropriately:

> The concept of production of immunologic disease by bacteria producing eukaryotic proteins is considered by knowledgeable immunologists to be without sufficient substance to generate concern about a public health problem.

Achieved and expected benefits of significant accomplishments to date

■ Bacteria have been genetically programmed to synthesize such vitally important mammalian peptides as insulin,[38] growth hormone,[39] parathyroid hormone,[40] interferon[41] and somatostatin. These breakthroughs may lead the way to large-scale commercial production of human biomolecules in bacterial factories, resulting in plentiful supplies for potential: control of diabetes mellitus; therapy of pediatric dwarfism and the short stature effects of juvenile-onset chronic arthritis; enhancement of wound healing; treatment of damaged cartilage and fractures, burn trauma, stress-induced ulcers, hypercholesterolemia, and osteoporosis; cure of certain forms of cancer and the common cold. The American Diabetes Association[42] strongly advocates continuation of recombinant DNA research under guidance of the NIH.

■ The restriction endonuclease step has been successfully applied to the prenatal detection of defective beta globin genes responsible for several specific disorders of hemoglobin production, including sickle cell anemia[43] and thalassemia.[44]

Threshold of realization

Nathans[45] and Berg[46] have enumerated the following staggering array of benefits in progress.

Genetic programming. Increased understanding of the organization, expression, and regulation of genes within chromosomes, thereby shedding light on the mechanism of DNA duplication through successive generations and control of cell growth and specialization, and permitting construction of maps of the human genome, with possible clues to the genetic programming of abnormal development. This would increase understanding of the biologic basis of mental retardation, Huntington's disease, and other unexplained neurologic defects;

Cancer prevention. Analysis of complex genetic programs regulating normal and malignant cell growth, possibly leading to effective cancer prevention measures;

Improved yields. Construction of *E. coli* K-12 strains expressing added genes at high rates, yet remaining defective outside the laboratory, so as to multiply enzyme yields manyfold and thereby improve yields of fermentation products and antibiotics;

Alleviation of world hunger. Transfer of bacterial genes for nitrogen fixation into plant cells, resulting in vastly increased efficiency of biologic nitrogen fixation for abundant food protein production and agricultural harvests conducive to the alleviation of world hunger;

Disease control. Translation of human genes into proteins within bacterial hosts for large-scale commercial production of the following factors involved in human diseases;

- Blood coagulation Factor VIII, for control of hemophilia;
- Antibody molecules, for treatment of infectious diseases caused by drug-resistant organisms;
- Antibody analogues, which might block steps in allergic reactions;
- Analogues of inflammation-producing proteins mediating tissue damage in autoimmune diseases.

Vaccine production. Production in bacterial host cells of viral and bacterial vaccines uncontaminated by allergenic microorganisms found in vertebrate cells and embryonic material hitherto used to culture attenuated viruses;

Gene therapy. Gene therapy, whereby defective mutant genes in embryonic cells can be replaced by normal genes for prevention of birth defects, and, as originally designed by Axel[47] for mice, but ambitiously launched on patients by Cline and Salser,[48,49] globin genes can be introduced into erythroid stem cells to be reimplanted into bone marrow for correction of genetic disorders of hemoglobin biosynthesis (thalassemia, sickle cell anemia). Once successfully extended to other human tissues, this technology could give rise to such beneficent humanitarian achievements as cures for phenylketonuria, cystic fibrosis, and other inborn errors of amino acid and carbohydrate metabolism.

Future risk-benefit assessments

In 1979, the Director of NIH issued a plan for a program to assess the risks of recombinant DNA research.[50] Responsibility for coordination and implementation of this plan rests with the Director of the National Institute of Allergy and Infectious Diseases (NIAID). The thrust of the plan is to develop means of collecting, collating, coordinating, evaluating, and disseminating data obtained from all sources. Risk assessment focuses on three major types of host-vector systems presently used for recombinant DNA research:

1. Prokaryotic host-vector systems–primarily, *E. coli* and *Bacillus subtilis.*
2. Lower eukaryotes–*Saccharomyces cerevisiae* and *Neurospora crassa.*
3. Eukaryotic viruses in cultured cells of higher eukaryotes.

Data elements. Data elements include the probabilities of (a) dispersal into the environment of organisms carrying recombinant DNA; (b) survival of the organism in the environment, or transfer of the recombinant molecule into another organism; (c) acquisition of a selective advantage by the recombinant-containing organism so that it can populate a significant ecological niche; and (d) possible conversion of the recombinant-containing organism into a pathogen or into a vehicle for transferring foreign DNA into higher organisms.

Prokaryotic host-vector systems. In these host-vector systems the following possibilities will be investigated:

- Survival in the environment and potential selective advantage of *E. coli* strains carrying recombinant DNA;
- Transmission of vectors from *E. coli* K-12 to other bacteria in the gastrointestinal tract of animals and humans;
- Testing *E. coli* K-12 host-vector systems carrying recombinant DNA for virulence or increased ability to colonize the gastrointestinal tract of mice;
- Animal experiments with hormone-producing strains of *E. coli* generated by recombinant DNA technology;
- Further evaluation of the biological activity of polyoma virus cloned in *E. coli* host-vector systems;
- The biological activity of *E. coli* K-12 clones carrying DNA copies of RNA tumor viruses;
- Autoantibodies or autoreactive cells due to production of eukaryotic polypeptides by bacteria colonizing higher organisms.

Lower eukaryotes. Experiments with lower eukaryotes seek to determine (a) the competitive advantage for survival of *Saccharomyces cerevisiae* in natural environments, and (b) the replication of eukaryotic viruses in *S. cerevisiae* and *Neurospora crassa* following introduction via a recombinant molecule.

Higher eukaryotes. Since any risks associated with using animal vectors to clone foreign DNA segments in cells of higher eukaryotes are extremely improbable, no specific risk assessment experiments are planned, and the literature on general virology is under review concerning (a) creation of novel nondefective viruses following insertion of a new DNA fragment, and (b) altering the host range of the viral vector.

Summary

Taking into account historical developments and the applicability of basic ethical precepts, the wealth of concrete evidence yielded thus far by laboratory experiments, conducted in full compliance with the NIH containment guidelines, overwhelmingly supports the conclusion that the recombinant DNA technique poses no real hazard to public health, laboratory workers, or the environment.

Expert testimony from eminent molecular biologists, microbial geneticists, and immunologists associated with the NIH and academic community amply refutes the conjectured risks that products of recombinant DNA research and technology might be pathogenic, infect laboratory workers, initiate an epidemic, irreversibly pollute the biosphere, be misused for genetic engineering of human personalities, or produce autoimmune diseases.*

Indeed, the benefits reaped and projected for humanity by far surpass all unsubstantiated risks, and without question justify continuation of the research. Benefits which have already materialized include the successful bacterial synthesis of mammalian insulin, growth hormone, parathyroid hormone sequences and interferon, with implications for eventual production of virtually unlimited supplies of human biomolecules for control of diabetes mellitus, treatment of pediatric dwarfism, correction of short stature due to juvenile-onset chronic arthritis and osteoporosis, potentially curing certain forms of cancer and the common cold; and the successful application of restriction endonuclease mapping as a noninvasive alternative to amniocentesis for prenatal detection of defective beta globin genes responsible for the birth of nonviable offspring with inherited disorders of hemoglobin production, such as sickle cell anemia and thalassemia. Emerging benefits of recombinant DNA research and technology include maps of the human genome providing clues to genetic programming of abnormal development; rational strategies for cancer prevention; transfer to plant cells of bacterial genes for nitrogen fixation, yielding abundant plant protein for alleviation of world hunger; large-scale microbial production of antibody molecules and analogues, viral and bacterial vaccines, and factors missing in human genetic diseases so as to permit therapeutic correction of inborn metabolic errors.

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Biochemistry of Collagen

*Present knowledge**

Collagen is the major structural component of many organs and is accordingly involved in normal histologic and gross structural development and in many diseases, both hereditary and acquired. This article reviews basic knowledge of the biochemistry of collagen to date and the alterations and defects in collagen metabolism which give rise to disease. The second part of this paper will appear in a subsequent issue and deal with nonfibrous components of connective tissue and their aberrations.

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For many years connective tissue was thought to function merely as an architectural system for structure and support of the body. It is now known that connective tissue is a vital and dynamic organ system composed of many interesting and complex substances whose metabolism is influenced by hormones, nutrition, and other factors.

Connective tissue components

The three components of connective tissue are (1) cells, (2) fibrous components, and (3) intercellular and interfibrillar ground substances.

1. Connective tissue contains a variety of cell types, including fibroblasts, macrophages, fat cells, mast cells, plasma cells, and other blood cells. Probably the most important cell to all connective tissue is the fibroblast. Fibroblasts are large, flat branching cells; they are the commonest cells in fibrillar connective tissue and are responsible for the formation of the intercellular components, fibers, and ground substances.
2. Fibrous components of connective tissue are collagen, elastin, and reticulin. Recently, however, the fine reticulin fiber observed by histologists is believed to be Type III collagen. Collagen is probably the most important fiber of various connective tissues.
3. Ground substance of connective tissue includes all of the nonfibrous, noncellular material. It exhibits metachromasia when stained with toluidine blue and other polychromatic dyes. All the known ground substance materials contain hexosamines, of which the interesting compound is glycosaminoglycan.

Many physiologic functions of connective tissues are largely determined by the nature and organization of the extracellular components such as collagen and glycosaminoglycan, and both materials take part in the pathogenesis of many connective tissue disorders, both hereditary and acquired. This article reviews basic knowledge of the biochemistry of the collagens to facilitate an understanding of their properties. The succeeding article will deal with the glycosaminoglycans.

Collagen comprises about one third of all the body proteins and is the major structural component of many organs. It is one of the most unusual of animal proteins. Devoid of cysteine and tryptophan, it contains more than 30 percent glycine and has the unusual amino acids, hydroxyproline and hydroxylysine. The sulfur-containing amino acid, methionine, and the aromatic amino acids are present in low concentrations. Collagen exists as thick fibers in skin, tendon, and the vascular system; as a firm structure in organs that bear weight such as bone and cartilage; as a delicate laminated structure in cornea; and as a nonfibrous structure in the basement membrane of many tissues including kidney glomeruli and lens capsule. Accordingly, the involvement of collagen in many different diseases is not surprising.

Primary structure of collagen

Characterization of the constituent protein material of collagen has been carried out based on its solubility in a buffered neutral salt solution or in a dilute acetic acid solution. Generally, most parts of mature collagen are insoluble. A characteristic feature of the soluble collagen is that it can be aggregated into fibers indistinguishable from native collagen. Soluble collagen extracted in a neutral salt solution or a dilute acetic acid solution was named collagen monomer, or tropocollagen, and it is now believed to be the fundamental unit of collagen.

Tropocollagen contains three polypeptide chains which are called alpha (α) chains. Each alpha chain consists of a major central portion about 1,000 residues long containing the usual amino acids in alpha-amino peptide linkage, flanked by two short telopeptide regions at both ends. The molecular weights of the alpha chains seem to be close to 95,000.

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TABLE I. Major types of vertebrate collagens

Type	Molecular Formula	Tissue Distribution
I	$[\alpha1(\mathrm{I})]_2\alpha2$	Skin, tendon, bone, dentin, fascia, arteries, uterus
II	$[\alpha1(\mathrm{II})]_3$	Cartilage, nucleus pulposus vitreous body
III	$[\alpha1(\mathrm{III})]_3$	Skin, arteries, fibrotic lesions, plaques
IV	$[\alpha1(\mathrm{IV})]_3$	Basement membranes
V	$[\alpha A]_3$, $[\alpha B]_3$ or $[\alpha B]_2\alpha A$	Fetal membranes, vascular tissue, minor component in bone, cartilage and other tissues

Each of these chains is coiled into a left-handed helix with about three amino acids per turn except for the telopeptide regions. The three helical chains are then twisted around each other into a right-handed super helix to form a triple-stranded, coiled structure with an average molecular weight of 300,000 and dimensions of 3,000 by 15 Å.

Collagen is now recognized to be a family of closely related similar molecules. At present five genetically distinct types (I to V) of collagen have been reported, the proportions varying according to tissue function (Table I). Type I collagen is the major connective tissue protein of skin, bone, tendon, and a number of other tissues. It consists of two identical polypeptide chains called $\alpha1$ (I) and one slightly different chain called $\alpha2$ (I), or simply $\alpha2$. Type II collagen, which consists of three identical chains called $\alpha1$ (II), is especially found in cartilage and in the eye. The collagen known as Type III consists of three identical alpha chains, called $\alpha1$ (III), in which three alpha chains are usually disulfide bonded, and it is associated with Type I in skin, blood vessels, and smooth muscle. Type IV, which consists of three identical α (IV) chains, and Type V, which contains αA and αB chains, have been isolated from basement membrane. Recently it was also found that fibroblast and other mesenchymal cells are probably surrounded by Type V collagen.

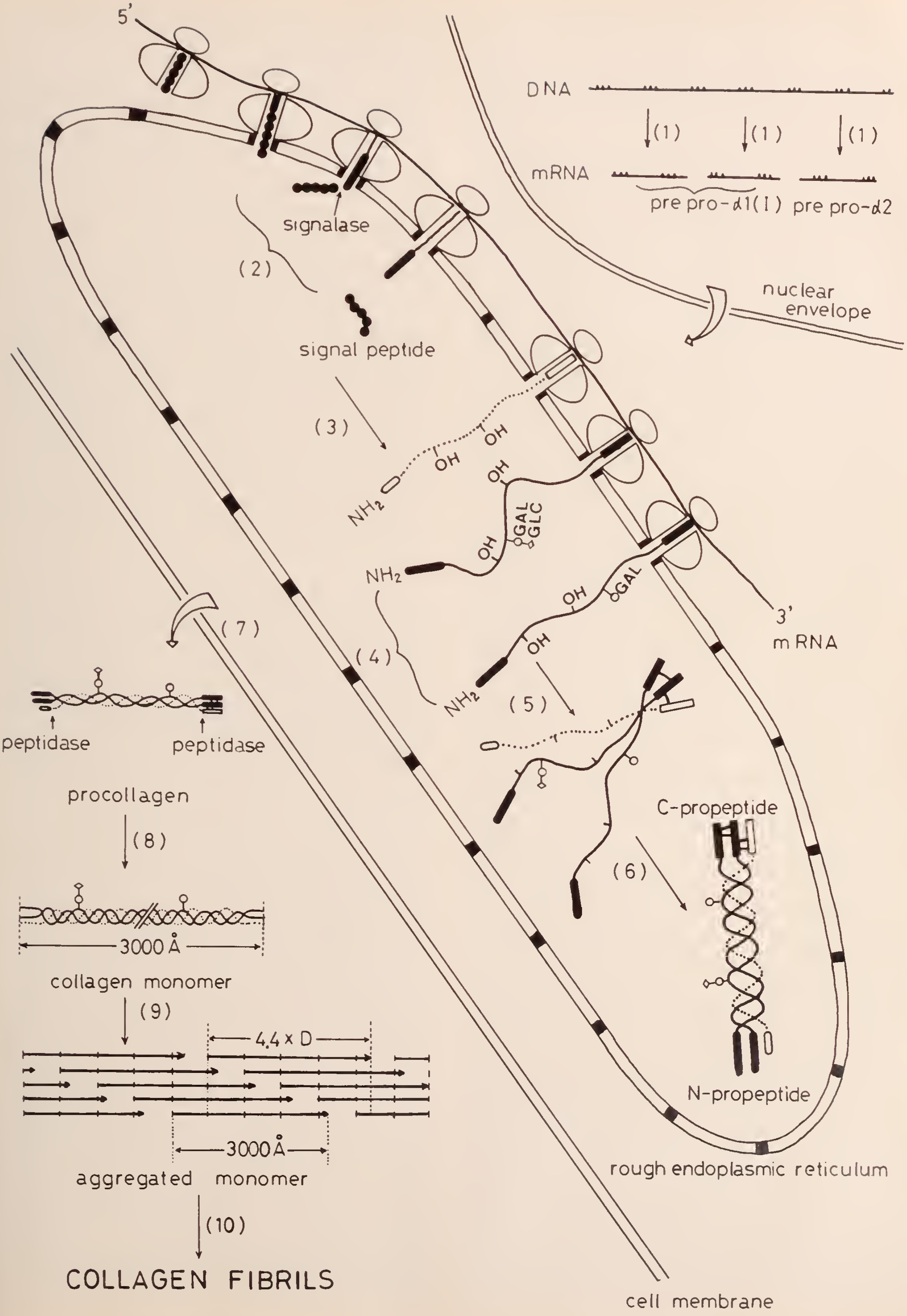
The differences among collagen chains have been classified on the basis of differences in amino acid sequences. As mentioned earlier the chains contain about 1,000 amino acid residues and every third amino acid residue in each chain within the triple helix is a glycine. Thus the molecular formula of an alpha chain can be approximated as $(\text{Gly-X-Y})_n$ where X and Y represent amino acids other than glycine. Collagens from mammals and birds have about 100 residues of proline at the X position and about 100 residues of hydroxyproline at the Y position. They differ in the exact sequence of amino acids in the X and Y positions. Furthermore, collagens have in common the carbohydrate attached to the peptide chain by O-glycosidic linkage to the hydroxy group of hydroxylysine. The hydroxylysine-linked carbohydrate units occur in the form of glucose-galactose disaccharide or a single galactose residue. Thus collagen represents one of the most abundant members of the glycoprotein family. However the amount of bound carbohydrate varies greatly among different collagen types and also in different tissues. In mammalian tissues, skin collagen has about 0.5 percent carbohydrate, while cartilage has about 4 percent and basement membrane collagens have more then 10 percent carbohydrate.

Biosynthesis of collagen molecules

In the last decade considerable progress has been made in our understanding of the structure and biosynthesis of collagen. The collagen molecule is formed first as a biosynthetic precursor, procollagen, in which each of the three constituent polypeptide chains are covalently lengthened by "propeptides" at both the amino and carboxy ends. The polypeptides of procollagen are called pro-α chains. In the case of Type 1 procollagen, the two polypeptides are referred to as pro-$\alpha1$ (I) and pro-$\alpha2$ (I). The amino-terminal propeptide of the pro-$\alpha1$ (I) chain has a molecular weight of about 15,000 daltons, and it is suggested that the pro-$\alpha2$ amino-terminal propeptide is shorter than the pro-$\alpha1$ amino-terminal propeptide. On the other hand, the carboxy-terminal propeptides of both $\alpha1$ and pro-$\alpha2$ chains have a molecular weight of 35,000 daltons. The propeptides of Type II and Type III procollagen are similar to those of Type I procollagen. Accordingly the propeptides account for one third of the bulk of the procollagen molecule. These propeptides probably participate in chain alignment and promote or accelerate triple helix formation.

The synthesis of collagen fibrils can be considered as occurring in two stages: intracellular steps are required to assemble and secrete the procollagen molecule, and extracellular steps convert the procollagen molecule to collagen and make a stable, cross-linked collagen fibril (Fig. 1).

FIGURE 1. Biochemical events in collagen biosynthesis. 1. Transcription of collagen structural genes resulting in synthesis of each different procollagen chain. 2. Translation of the mRNA for each procollagen chain. Procollagen mRNAs are transported from nucleus to ribosomes lining rough endoplastic reticulum. The procollagen is depicted as a polypeptide chain having a signal peptide which is cleaved by signal peptidase. 3. Hydroxylation by peptidyl proline hydroxylase or peptidyl lysine hydroxylase. 4. Glycosylation of hydroxylysyl residues by galactosyl transferase and glucosyltransferase. 5. Formation of the interchain disulfide links in the C-terminal propeptides. 6. Triple-helix formation. 7. Secretion. 8. Procollagen-collagen conversion by limited proteolysis (pN-collagen aminopeptidase and pC-collagen carboxypeptidase). 9. Assembly into fibrils by a near quarter-stagger's shift. 10. Cross-linking for collagen fibrils.


5'
DNA
(1)
(1)
(1)
mRNA
pre pro-α1(I)
pre pro-α2
signalase
(2)
nuclear envelope
signal peptide
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OH
OH
NH₂
NH₂
GAL
GLC
OH
OH
GAL
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peptidase
peptidase
procollagen
(8)
C-propeptide
(6)
3000 Å
collagen monomer
(9)
4.4 x D
3000 Å
N-propeptide
aggregated monomer
rough endoplasmic reticulum
(10)
COLLAGEN FIBRILS
cell membrane

Intracellular steps. Relatively little information is available about the transcription as well as the translation of collagen. As with all proteins, transcription of the mRNA (genetic messenger ribonucleic acid) is the first step in the synthesis of each procollagen chain.

It is very likely that the initial translation products are still longer than pro-α-chain polypeptides and have additional "signal sequences" at the amino end, as has been found for several secreted proteins. Recent evidence shows that the nascent polypeptide translated from collagen mRNA by cell free system has a signal sequence of 20 or more residues at the amino-terminal of pro-α chain and is called prepro-α chain. This prepropeptide is rich in hydrophobic amino acids and the prepro-α chain enters through the membrane into the cisternae of the RER (rough endoplasmic reticulum), where it is immediately cleaved off by a protease. Since both characteristic amino acids of collagen, hydroxyproline and hydroxylysine, are not genetically coded, they are formed from precursor residues of proline and lysine respectively by the action of appropriate hydroxylating enzymes, prolyl hydroxylase and lysyl hydroxylase, located within the RER. These hydroxylase systems require molecular oxygen, ferrous ions, α-ketoglutarate, and ascorbic acid as cofactors for their activity. Recent studies suggest that the proenzyme which can be activated by the addition of ascorbate or lactate is also present in mammalian tissues. Hydroxylation is carried out on the growing peptide chain prior to release from the ribosome. Peptidyl hydroxylation is required to stabilize the helical folding of a collagen chain.

The resulting hydroxylysyl residues in pro-α chains serve as sites of attachment of galactosyl and galactosyl glucose moieties and participate in extracellular interchain cross-link formation. Both galactosyltransferase, which adds galactose to the hydroxylysyl residues, and glucosyltransferase, which adds glucose to the galactosylhydroxylysyl residues, use sugar in a form of uridine diphosphate glucoside and require a divalent cation, particularly manganese. These sugar moieties are believed to be important in controlling the size of fibril formed in tissue. N-acetylglucosamine and mannose can only be added in the carboxypropeptide regions and not in the body of the collagen molecule when the pro-α chains are still nonhelical.

The formation of the interchain disulfide bonds in the C-terminal propeptides will both stabilize the helix and facilitate the folding of the collagen helix. If the hydroxylation is prevented, the molecule will not become triple helical and will remain as a nonfunctional protein.

The manner in which procollagen is transported from its site of synthesis on the RER to the extracellular space is not well understood. A number of proposals have been made. However, secretion of procollagen seems to be similar to that of other proteins synthesized for export in that the protein assembled in the RER passes through the Golgi complex before leaving the cell.

Extracellular steps. The conversion of procollagen to collagen is achieved by the stepwise proteolytic removal of the noncollagenous segments of propeptides at both ends. The amino propeptides are removed by pN-collagen aminopeptidase at about the time that the newly synthesized procollagen leaves the cell, whereas carboxy propeptides are cut off by pC-collagen carboxypeptidase at a distinctly later time.

After the conversion of procollagen to collagen, molecules aggregate into a fiber of uniform diameter that is electron microscopically indistinguishable from the fibrils found in tissue. It is generally assumed that the collagen molecules first aggregate during fibrilogenesis into microfibrils which then aggregate into fibrils. One of the characteristic features of collagen fibrils is a 68-nm. periodic staining pattern. Though this periodicity may vary in different collagen preparations, it is still very useful in distinguishing collagen fibrils from other fibrillar structures in the extracellular matrix. Although several models for microfibrils have been proposed, the Smith five-stranded microfibril is still a favorite, and in this model each collagen molecule is shifted axially relative to its neighbor by a distance D, where D equals one fourth of its molecular length. The presence of covalent cross-links in collagen has been known well before their chemical nature was determined. The insolubility of collagen from various tissues was attributed to these cross-links. Most of the cross-links in collagen are derived from lysine and require the enzyme lysyl oxidase which catalyses the oxidative deamination of the e-amino groups of selected lysyl and hydroxylysyl residues to reactive aldehydes. The enzyme lysyl oxidase is an extracellular enzyme which requires copper as an essential cofactor.

The aldehyde groups formed can further react to form two major kinds of cross-links by different condensation reactions (Fig. 2). One kind is an intramolecular cross-link that connects the chains of the same molecule and is formed by aldol condensation of two of aldehydes. The second kind of cross-link is aldimine addition products between the aldehydes and unmodified hydroxylysyl or lysyl amino side chain, and the Schiff bases synthesized in this reaction seem to be the commonest intermolecular cross-link in native insoluble collagen. In addition, a new cross-linking amino acid, pyridinoline, was recently isolated from tendon collagen without reduction. There is also evidence suggesting that in certain collagens, histidinyl cross-link is derived by reaction of the intramolecular allysine aldehyde with both a histidine residue and a hydroxylysine residue. Thus, cross-linked amino acids provide the strength needed for normal functioning of collagen fibrils. The enormous literature in this specialized field of collagen chemistry has been reviewed several times.

Degradation of collagen

Vertebrate collagenase has been found in various tissue. This collagenase cleaves collagen molecules at the specific locus, three fourths of the distance from the amino terminal of the molecule. Recent studies have shown that there are four different types of collagenase in tissue: (1) active collagenase, (2) a complex of collagenase with $\alpha 2$-macroglobulin, (3) the inactive form consisting of a complex with a low molecular weight inhibitor, and (4) a procollagenase. Although it is thought that extracellular modulation in the catabolism of collagen is determined by the balance of various types of collagenases, the precise role of each type of collagenase in degradation of collagen in vivo is still unclear.

In rheumatoid arthritis, articular cartilage and other fibrous tissue of the joint are eroded by proliferating cells of synovial membrane and leukocytes, which degrade the collagenous tissues with a collagenase or other neutral protease.

Recently it has been shown that a substantial amount of newly synthesized collagen is degraded intracellularly. This may be one of the regulatory mechanisms by which the cells control the amount of extracellular protein.

Alteration in collagen metabolism

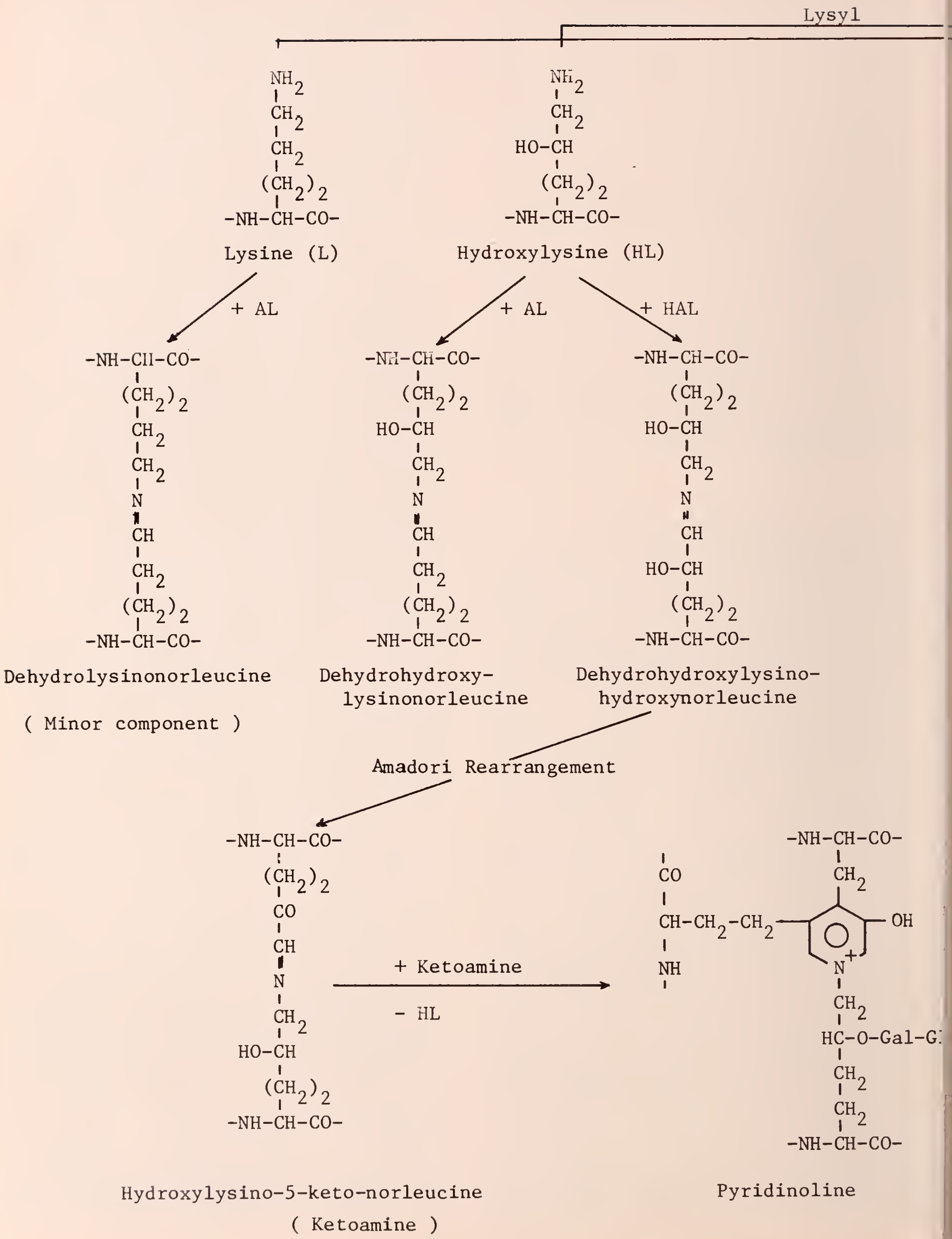
Heritable diseases. As the knowledge about collagen structure and metabolism accumulated, biochemical data were quickly obtained to explain a number of heritable diseases on the basis of molecular defect in collagen biosynthesis and structure. Conversely, studies of some heritable diseases provided new information about the biosynthetic process itself.

The primary function of collagen is to give tensile strength and extensibility to tissue. Therefore in many of the heritable disorders of collagen, tissue fragility and hyperextensibility are common. The disorders include EDS (Ehlers-Danlos syndrome), which is a collection of about 10 diseases involving defects in the metabolism of collagen. Besides EDS, other human heritable collagen diseases include Marfan's syndrome, *cutis laxa*, Menke's kinky hair syndrome, and osteogenesis imperfecta. Two or three heritable diseases have been known as examples of genetic defects at the level of transcription and translation. It has been suggested that a defect in synthesis of Type I collagen is the cause of osteogenesis imperfecta. However, recent study shows that the defect might be related to structural alteration (abnormality) of propeptide portion of Type I collagen. In the most severe form of EDS Type IV, a defect in the biosynthesis of Type III collagen has been claimed to be the cause.

At the intracellular levels of post-translational modification a marked decrease in lysyl hydroxylase which leads to less stable cross-links of collagen fibril has been found in EDS Type VI. It was reported that lysyl hydroxylase produced by fibroblasts from patients with that syndrome was less stable than the normal enzyme at 37°C. and has a high Michaelis's constant for ascorbic acid. Errors arising in the extracellular modification have involved a deficiency of procollagen peptidase in EDS Type VII and deficiency of lysyl oxidase in EDS Type V.

Acquired diseases. In addition to the heritable diseases which can offer information about the relationship between structure and function of normal collagen, many acquired diseases indicate possible secondary abnormalities in collagen metabolism. In some cases an acquired defect results from the abnormal activity of a normal gene. Certainly cells are able to switch the type of collagen synthesized. Cultured chondrocytes can be made to synthesize Type I $[\alpha 1(\mathrm{I})]_2\alpha 2$ collagen rather than Type II $[\alpha 1(\mathrm{II})]_3$ collagen by a variety of experimental conditions, such as growing them in the presence of 5-bromo 2-deoxy uridine. The example of such "gene switching" in vivo was observed in osteoarthritis. In osteoarthritic cartilage, a shift in synthesis of collagen from Type II to Type I has been reported. Although a shift in collagen synthesized may be the cause of pathologic lesion in osteoarthritis, other workers in this field could not confirm these changes in collagen. Moreover, it has been suggested that such changes were induced by the lysosomal enzymes. This fact strongly indicates that the mesenchymal cells have acquired the ability to make a particular type of collagen through an environmental factor.

An acquired defect could be caused by the lack of a required cofactor or introduction of an inhibitor. Activities of prolyl and lysyl hydroxylases vary in parallel with changes in collagen biosynthesis: during embryonic development and in aging, in fibrosis of the liver and the lung, and in inflammatory diseases. The precise cofactor requirements of enzymes suggest the possibility of specific control of collagen synthesis. In fact it is well known that wounds in scorbutic tissues of animals fail to heal. This is explained by the fact that in the absence of sufficient hydroxylation of suitable proline residues, the collagen polypeptide is unable to achieve a helical formation which allows the collagen monomer to be stable at body temperature. However, little is known about the defective hydroxylation of lysine in scurvy. Furthermore an acquired defect could depend on the interaction between endogenous or exogenous compounds and the extracellular collagen molecule. Lathyrism caused by administration of a potent lathyrogen, β-aminopropionitrile, is due to inhibition of lysyl oxidase and results in an accumulation of extractable collagen. Compounds known to react with the aldehyde involved in cross-links produced alterations somewhat similar to the lathyrism described above. The reaction of homocysteine produced in the patient with homocystinuria with aldehydes to form stable compounds is known to occur at least in vitro. At lower doses, D-penicillamine acts primarily by blocking the aldehyde residues present


Lysyl
Lysine (L)
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+ AL
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Dehydrolysinonorleucine
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Dehydrohydroxylysinohydroxynorleucine
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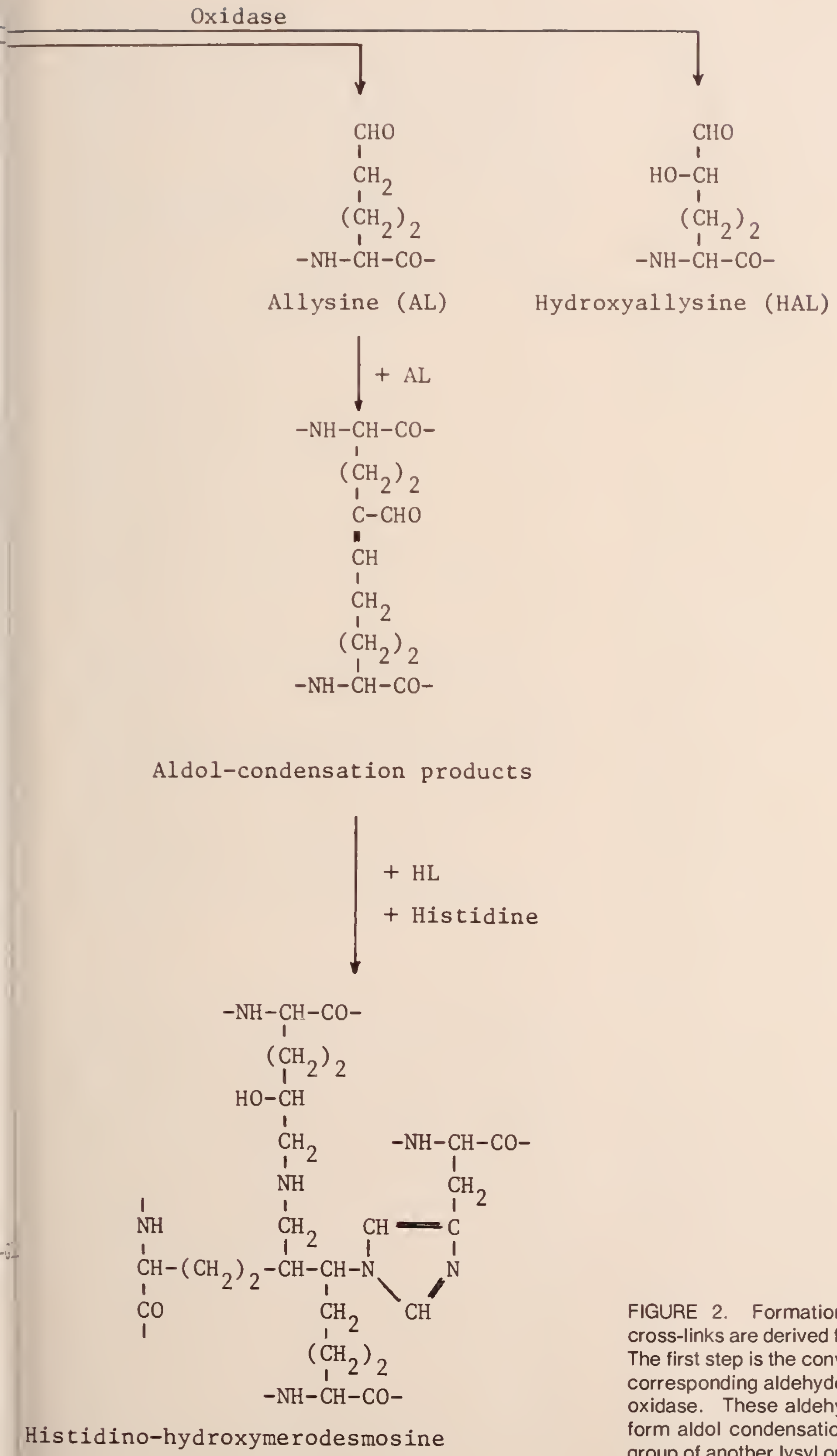

FIGURE 2. Formation of cross-links in collagen. All cross-links are derived from lysyl or hydroxylysyl amino acid. The first step is the conversion of these two amino acids into corresponding aldehydes (AL and HAL) by the enzyme lysyl oxidase. These aldehydes either react with each other to form aldol condensation product or react with free amino group of another lysyl or hydroxylysyl residue to form various cross-links.

in the collagen molecule and results in an accumulation of salt-soluble collagen synthesized. D-penicillamine has been used to treat rheumatoid arthritis, Wilson's disease, and scleroderma.

At present collagen disorders are recognized when mechanical malfunction occurs, but it is suggested that collagen may be involved in other diseases at a more subtle level. Recent studies show that hypertension causes an increase in collagen biosynthesis in blood vessels and that the increased synthesis can be reversed by antihypertensive drugs such as reserpine. Hypophysectomy also produces a similar effect. Accordingly it is considered that the effect of reserpine on collagen biosynthesis may be mediated through the hypothalamus.

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Lipid Levels in Hemodialyzed Diabetic Uremic Patients

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Levels of triglycerides and cholesterol, as well as plasma insulin, TSH (thyrotropin), and GH (growth hormone) were measured in diabetic and nondiabetic patients on hemodialysis. Diabetics not requiring insulin had significantly lower levels of cholesterol and triglycerides than controls; in diabetics taking insulin these differences were not significant. There was an inverse relationship between plasma insulin levels and plasma triglyceride levels in the diabetics not taking insulin, whereas the normal direct relationship between these two variables was found in controls. A direct relationship between plasma TSH and GH was found in uremic controls; whereas an inverse relationship between these two hormones was found in diabetics not requiring insulin. This perturbation may have an effect on lipid levels. Hyperlipidemia may not be important in the pathogenesis of arteriosclerosis in diabetics on chronic hemodialysis.

A major complication of diabetics and uremic patients on hemodialysis is arteriosclerotic cardiovascular disease. Numerous studies have shown diabetics have a propensity for developing hyperlipidemia, particularly hypertriglyceridemia. A similar abnormality has been noted in chronic hemodialysis patients. Because elevated plasma lipid levels have been inculpated in accelerated arteriosclerosis, we have studied lipid patterns in diabetic and nondiabetic patients on chronic hemodialysis. Since insulin is known to affect plasma lipid levels, the diabetics were subdivided into those taking insulin and those not requiring insulin. We found that these two groups appear to behave differently from what was expected and from one another. In an attempt to understand the underlying mechanism for this difference, levels of fasting basal insulin and two pituitary hormones, GH (human growth hormone) and TSH (thyrotropin) were determined.

Methods

The subjects were uremic patients undergoing chronic outpatient hemodialysis at either the Long Island College Hospital or the Albert Einstein College of Medicine. Patients labeled "diabetic" had well documented clinical diabetes mellitus prior to the development of renal insufficiency. One group needed daily insulin to control their blood glucose levels. The "noninsulin" diabetics controlled their glucose levels on diet alone. Age- and sex-matched uremic patients on chronic intermittent hemodialysis served as controls. All patients in this study, diabetics and nondiabetics alike, had similar diets. Calories were calculated on the basis of weight and activity. Protein prescribed was 1 Gm. per kilogram of weight per day; carbohydrate content varied from 40 to 55 percent of total calories.

Duration of dialysis was not different in the various groups: for example, the diabetics not requiring insulin were dialyzed an average of 27 months plus or minus 8 months while the control group was dialyzed for 30 months plus or minus 6 months. All patients were dialyzed three times a week for four hours each time. Blood samples were drawn in the fasting state, prior to dialysis. Serum insulin, TSH, and GH were measured by radioimmunoassay. Triglycerides and cholesterol were measured calorimetrically. Details on the different methods have been described before.[1]

Student's t-test was used to compare the three groups.[2] Linear regressions were calculated by the least-squares method.[2]

Results

Comparison of the three groups' values for serum lipids is seen in Table I. The noninsulin group of diabetics had mean levels of both triglycerides and cholesterol that were significantly lower than those

TABLE I. Mean levels of lipids, growth hormone, and thyrotropin in three groups of patients.*

Group	Serum Glucose mg./dl.	Serum Triglycerides mg./dl.	Serum Cholesterol mg./dl.	Plasma Insulin U./ml.	GH ng./ml.	TSH U./ml.
Noninsulin	124 ± 5	112.56 ± 9.75 (n = 9)†	158.67 ± 13.07 (n = 9)**	26.76 ± 10.56 (n = 6)	3.13 ± 1.60 (n = 6)	5.12 ± 1.29 (n = 6)
Insulin	197 ± 32	219.08 ± 16.49 (n = 13)	177.33 ± 15.52 (n = 13)	156.03 ± 51.14 (n = 10)	8.09 ± 3.01 (n = 10)	9.0 ± 2.44 (n = 10)
Control	113 ± 7	257.67 ± 28.52 (n = 30)	192.43 ± 8.74 (n = 30)	44.3 ± 7.45 (n = 22)	5.6 ± 1.09 (n = 19)	3.68 ± 0.62 (n = 19)

* Numbers in parentheses represent number of patients for each group that the particular determination was done.
† $p < 0.05$.
** $p < 0.01$.

in the control group. Mean lipid levels in diabetics taking insulin were also lower than in controls, but the difference was not statistically significant.

The variation in serum triglyceride levels with plasma insulin levels is shown in Figures 1 and 2. Controls showed a direct relationship between these two variables. Diabetics not requiring insulin, however, had an inverse relationship, a highly significant difference. The insulin-requiring diabetic group showed significant scatter and represented a third distinct group.

Relationship between two pituitary hormones, GH and TSH, is shown in Figures 3 and 4. Control patients exhibited a direct relationship between GH and TSH. The diabetics not requiring insulin showed a clear inverse relationship between levels of the two hormones. No correlation was shown between GH and THS in the insulin-requiring diabetic group.

Comment

Our results show a striking difference between the group of diabetics not requiring insulin and the control group. The serum lipid levels in the first group were substantially lower than those in nondiabetic uremic patients. This finding is surprising in view of the fact that many diabetics develop hypertriglyceridemia in the absence of uremia. Furthermore, uremic patients, particularly those on hemodialysis, commonly have elevated triglyceride levels, which frequently fail to return to normal even after kidney transplantation.[3-5] Dietary carbohydrate intake has been found to affect lipid levels.[6] However, if carbohydrates represent 40 to 60 percent of caloric intake, then no significant effect is found.[6]

The difference between diabetics on insulin and those not on insulin is also of interest. A previous study, which included some of the patients in the

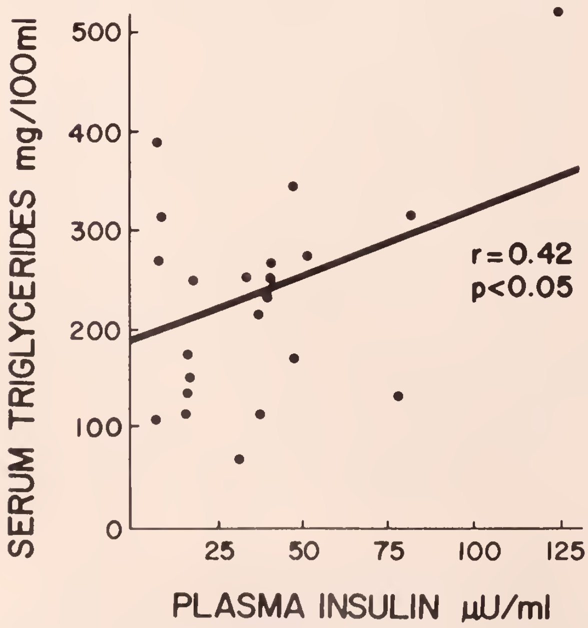

FIGURE 1. Relation of serum triglycerides to basal insulin levels in nondiabetic hemodialyzed uremic patients.

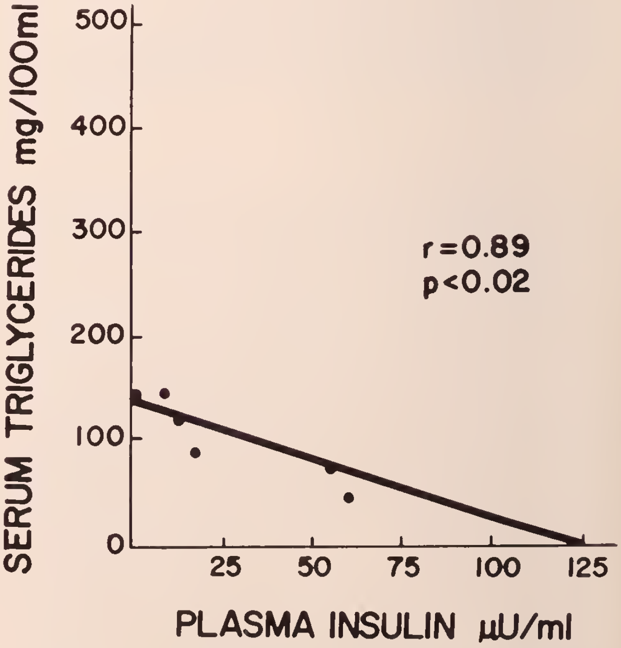

FIGURE 2. Relation of serum triglycerides to basal insulin levels in diabetic hemodialyzed uremic patients requiring no insulin.

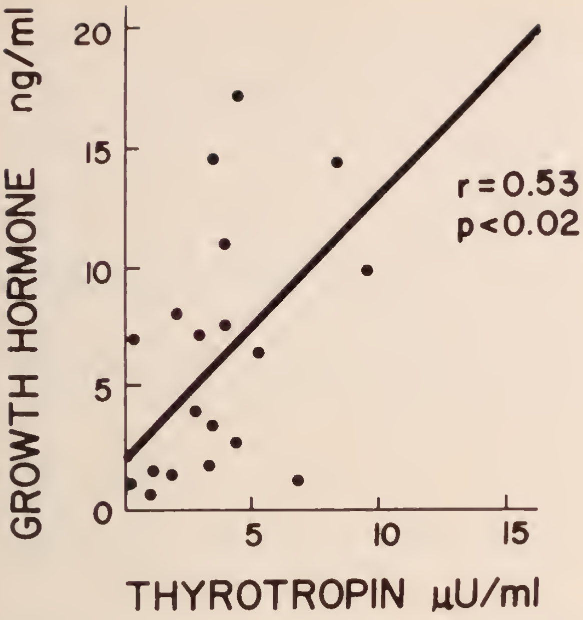

FIGURE 3. Relation of serum GH to serum TSH levels in nondiabetic hemodialyzed uremic patients.

present study, found that although diabetic hemodialysis patients had generally lower triglyceride levels than nondiabetic uremic patients, the difference was statistically significant only immediately after dialysis.[1] When we expanded the study and separated the diabetics into those on and off insulin, a significant distinction became evident prior to dialysis. In another study, no difference in lipid levels was found among diabetic and nondiabetic hemodialyzed uremic patients. In this later study, however, 47 out of the 49 diabetic patients required insulin.[7]

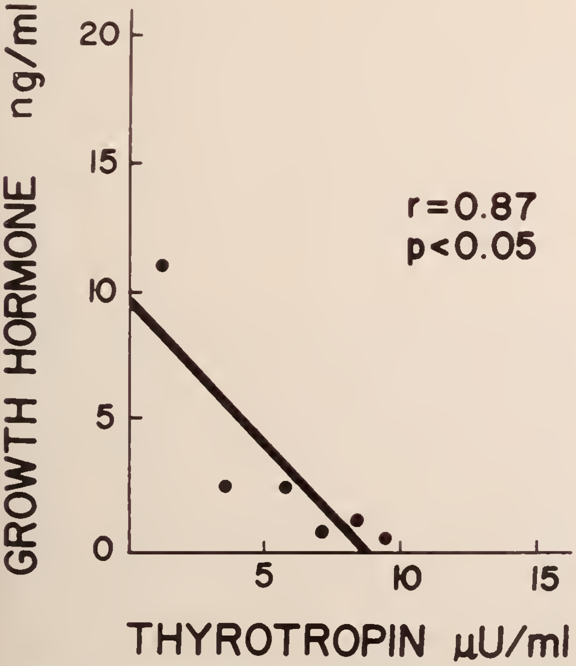

FIGURE 4. Relation of serum GH to serum TSH levels in diabetic hemodialyzed uremic patients requiring no insulin.

The direct relationship between plasma insulin levels to those of serum triglycerides in nondiabetic hemodialyzed uremic patients is in accord with the findings of Bagdade, Porte, and Bierman,[3] although other workers failed to show such a relation between the two variables.[4] An inverse relation was shown for the noninsulin diabetic group.

Bagdade, Porte, and Bierman[3] had postulated that the insulin resistance in uremic people is compensated by increased basal insulin levels which in turn stimulate hepatic lipid synthesis. The reverse mode of thought might apply for the noninsulin-requiring diabetic uremic patients; that is, increase in insulin sensitivity results in a decrease of plasma insulin levels and subsequent hepatic triglyceride synthesis. Interestingly enough, the mean insulin levels were depressed by 40 percent when compared to the levels of the control group, although the difference did not achieve statistical significance.

It is possible that the lower plasma insulin levels in the diabetics not requiring insulin was due to decreased carbohydrate intake. A rise in plasma triglycerides has been described following increased carbohydrate consumption in normal people.[8] It is by no means certain, however, that this is true in uremic subjects. Hübner et al.[9] studied the effects of glucose-free dialysate on the plasma lipid profile of patients on dialysis and were unable to demonstrate any significant lowering of triglycerides. Bagdade[10] also noted no increase in triglyceride levels in two uremic patients fed a high carbohydrate diet, a finding opposite to the increase shown in normal subjects. In addition it is unlikely that carbohydrate restriction played a significant role in lowering lipid levels in the diabetics not taking insulin in our study, since the group requiring insulin had a diet similarly restricted in carbohydrates and, presumably, nutritionally similar to that of subjects not on insulin (no difference in serum creatinine, albumin, or clinical state).

Both GH and TSH have been shown to affect plasma lipids; the former by antagonism to insulin[11] and the latter by enhanced fatty acid release from adipose tissue.[12] Alteration of levels in either or both of these hormones might play a role in lipid metabolism in uremia. A previous study showed that infusion of thyrotropin-releasing hormone caused a rise in GH levels in uremic but not in normal people.[13] The direct relationship between GH and TSH levels in uremic controls is consistent with this finding, and the opposite relationship found in our noninsulin patients suggests a unique metabolic pattern in this group.

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VA hospital patients found older and sicker

Veterans using the Veterans Administration hospitals tend to be older, in poor health, of lower income, and lacking in health insurance, says a report in the March 13 Journal of the American Medical Association.

Younger and more affluent veterans are more likely to use community health resources rather than check in at a VA hospital, says Daniel J. Fink, M.D., of the VA Medical Center at Long Beach, California, and the College of Medicine of the University of California at Irvine.

Dr. Fink did a study of patients admitted to the medical service of the Long Beach VA Hospital during a four-week period last summer. Objective was to determine whether a routine chest x-ray taken on admission was best for these individuals.

The routine chest x-ray films of 113 patients were examined, and 52 of them (46 percent) revealed abnormal findings, Dr. Fink reports. He concluded that routine chest x-rays on admission are necessary for hospitals such as those serving veterans.

More than 90 percent of those in the study were 40 years of age or older. Many suffered from health problems involving the heart or lungs. There was a high proportion of cigarette smokers and alcoholics, he says.

Both the high cost of medical care and awareness of the possible hazards of radiation have provoked interest in curbing injudicious use of the routine admission chest x-ray films, Dr. Fink points out. Guidelines have been drawn seeking to help restrict use of chest films only to those who show signs of needing this diagnostic tool. But in the VA hospitals, the rate of chest and heart problems is so high that routine screening by x-ray should be continued, he declares.

Foreign Bodies of the Esophagus

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Patients with foreign bodies of the esophagus may be found to have a history of prior swallowing difficulties or have had acute obstructions. The records of 155 patients with foreign body of the esophagus were reviewed. Of these, 33 patients (21 percent) were found to have underlying esophageal lesions, with the most common etiologic evidence shown to be caustic (alkali or lye)-related narrowing and obstruction after surgical repair of tracheoesophageal fistula. A search for underlying esophageal pathologic conditions yields a variety of additional causes, including dysmotilities, diverticula, Schatzki's rings, and reflux strictures. Motility abnormalities are particularly common in children who have undergone repair of tracheoesophageal fistula, and the mechanisms for these motor abnormalities are reviewed.

Recent advances in the approach to foreign bodies of the esophagus have emphasized technical aspects of endoscopic removal,[1,2] but few studies of esophageal obstruction have recently measured the incidence of the underlying causes for the obstruction. It would seem that a large foreign body could be inadvertently lodged in the esophagus without any underlying disease, and this has often been presumed to be the case. Endoscopic removal of a foreign body of the esophagus is generally not difficult, but it is unclear how extensive the diagnostic work-up should be for the patient with a foreign body of the esophagus.

Materials and method

A retrospective review, of the charts of all patients discharged from Columbia-Presbyterian Medical Center from 1966 to 1979, with the diagnosis of foreign body of the esophagus, was performed. The charts were reviewed for pertinent information about prior swallowing difficulties, underlying associated disease, and results of diagnostic workup.

Results

There were 155 patients with foreign body of the esophagus identified. All patients had documentation of foreign body based on either soft-tissue x-ray film evidence, upper gastrointestinal series, or peroral endoscopy. Underlying esophageal abnormalities were found in 33 patients, as noted in Table I. There were 15 children (less than 15 years of age) and 18 adults. The female to male ratios were each 2:1 in the two groups (children—10 females, 5 males; adults—12 females, 6 males). The overall mean age was 35.5 years, with the mean age in the adult group 62.2 years, and that of the pediatric group 3.5 years. The largest number (12) had a history of repair of either tracheoesophageal fistula or esophageal stenosis, or (9) a history of lye or other caustic-ingestion-related narrowing. Although the anastomoses in the postoperative patients not infrequently appeared narrow either at upper GI (gastrointestinal) series or at endoscopy, there was in some cases a question of whether this represented true stricturing at or above the anastomosis, or simply edema and spasm.

Of the 33 patients, 29 underwent upper GI series and 31 had at least one endoscopy procedure. There were a total of 45 foreign bodies, of which 38 were food particles, 1 a coin, 1 a plastic toy in a child, and 5, an object, the nature of which was not clearly identified in the patient charts. A prior history of swallowing difficulties was elicited in 11 of the adults, and 6 of these were patients with caustic-related lesions. Of the seven adults without prior swallowing difficulties or heartburn, the lesions included motility abnormalities in three, diverticula in two, web in one, and Schatzki's ring in one. Esophageal manometric studies were not performed on any of the patients.

Of the remaining 122 patients in whom no underlying esophageal abnormality was found, endoscopy was performed on 105. In 17 of these 122 patients, the foreign body seen on x-ray film passed spontaneously without any apparent etiologic evidence.

No malignant tumors were identified; there were no patients with scleroderma or other collagen vascular diseases, or prior radiotherapy. There were no deaths and no significant morbidity from foreign-body removal or endoscopy. Of the 31 endoscopies, 29, most with removal of the foreign body, were performed with a rigid endoscope. One patient had a combination of a Schatzki's ring, tertiary-wave dysmotility, and a proximal diverticulum, but in view of the foreign body lodging distally, the diverticulum was felt to be not significant. One patient had a thickened cricopharyngeal muscle and diffuse spasm of most of the esophagus.

TABLE I. Etiologic evidence of obstruction in 33 patients with foreign body of the esophagus

Factor	Number of Adults	Factor	Number of Children
Caustic(alkali)-ingestion	6		
Esophageal spasm	2	Tracheoesophageal fistula*	10
Reflux stricture	2	Esophageal atresia*	1
Diverticula	2	Esophageal stenosis*	1
Spasm and thickened cricopharyngeus	1	Caustic(alkali)-ingestion	3
muscle	1		
Spasm and Schatzki's ring	1		
Schatzki's ring	1		
Esophageal web	1		
Thickened cricopharyngeus	1		
Thyroid compressions	1		
TOTALS	18		15

* History of surgical repair.

Comment

Early reports of the diagnosis and treatment of obstruction of the esophagus with foreign bodies described large numbers of cases but did not emphasize the search for underlying causes.[3–5] The finding of a significant esophageal lesion in 33 (21 percent) of 155 patients in this study is not dissimilar to the figure of 15 percent found by Hoeksema and Huizinga.[6] Brooks[7] noted esophageal abnormalities to be previously known in only 11 percent of patients with foreign bodies, the greatest number being hiatal hernia and stricture. Baraka and Bikhazi[8] found a predominance of foreign bodies in children; however, they reported nine adults with foreign body of the esophagus, eight of whom had underlying disease of the esophagus.[8]

It is of interest that in the present series, the greatest number of underlying lesions were secondary to either caustic ingestion, or to the postoperative state after repair of congenital tracheoesophageal fistula or esophageal atresia. No patients in this series were found to have any malignant conditions or achalasia. These findings were probably based on patient selection, with the requirement for inclusion into the study of hospitalization. It is possible that many patients with peptic strictures or malignant narrowing were managed with outpatient dilatation and thus not included in this series. It is also conceivable that the patients in this series had more significant types of obstructions, which necessitated hospital admission. Patients whose discharge diagnosis mentioned solely underlying esophageal disease but not foreign body of the esophagus were not included in the study. Admittedly, the criterion of admission may have biased selection toward patients undergoing rigid, rather than fiberoptic flexible, endoscopy procedures, since the latter procedure is often done on an outpatient basis.

Four patients had spasm or other significant esophageal or cricopharyngeal dysmotility. However, since manometric pressure tracings were not performed, it is possible that the number of motility disorders may have been underdiagnosed. It is interesting that patients with diverticula and motility abnormalities in this study frequently gave an acute clinical presentation of obstruction; patients with alkali-caustic, ingestion-induced lesions generally had a long history of prior swallowing difficulties.

The mechanism for obstruction in patients who have had repair of tracheoesophageal fistula has undergone considerable study. A large number develop postoperative narrowing within a few weeks after surgery, but this is primarily reversible edema; later *bona fide* stricturing may occur in 30 to 60 percent of these patients.[9–11] Considerable dysmotility is frequently apparent at and below the anastomosis, with elevated resting esophageal body pressure, low peak pressure in the mid-esophagus, and "to-and-fro" nonpropulsive movements identified, and generally normal lower and upper sphincter pressures.[10–15] So-called coupled waves, with abnormal contraction following a normal contraction, have been described.[14] It has been suggested that part of the motility problem relates to inadequate vagal activity, either intrinsic (congenital) or secondary to the operative procedure.[10,12,13]

Significant gastroesophageal reflux may occur in these patients as well,[16] related to poor clearance of acid from the dysmotility, and related to the high incidence of hiatal hernia that probably results in turn from the surgically induced shortening of the esophagus.[10]

Patients with caustic injury undergo considerable acute inflammation with rapidly progressive scarring. Recent motility studies with patients who had ingested hydrochloric acid have demonstrated weakened contractions throughout the esophagus soon after ingestion, with high resting pressures and varied other abnormal motility patterns, but with generally normal function one month later.[17]

Foreign bodies of the esophagus can readily be removed endoscopically, but can they be prevented? Dietary measures, careful chewing of food, and adequate fitting and function of dentures all play a role in preventing obstruction. In patients with stricture, dilatation when needed is effective. A recent report of the effectiveness of glucagon in the passage of foreign bodies of the esophagus holds hope of nonendoscopic therapy in selected cases.[18]

Two high-risk groups appear to be patients with a history of caustic injury and those with previous tracheoesophageal fistula repair.

In the first group, it would appear that healing of the mucosa would result in improved motility.[17] Caustic strictures are often multiple and irregular, but may respond to dilatation in some cases.[19]

In the second group, those patients with prior tracheoesophageal fistula repair, the problem of acute obstruction is a multifaceted one. Some patients have recurrent stenosis, for which dilatation should be performed. The amount of dysphagia may not necessarily correlate with the presence or absence of a stricture.[12] Another problem is dysmotility at and below the anastomosis, for which little can be done with assurance, but for which medications such as bethanechol chloride, with cholinergic-stimulating properties, might be tried in a protocol study. Antireflux treatment such as antacids, appropriate dietary restrictions, and cimetidine may help in patients whose reflux contributes to the obstruction. In one study,[20] bethanechol chloride helped to strengthen the lower esophageal sphincter and to decrease acid reflux in two patients who had prior repair of tracheoesophageal fistula and atresia; it is not clear if the drug had beneficial effects on motility as well in these two patients. If found safe and effective, other drugs such as metoclopramide hydrochloride might also be considered for controlled clinical trials in such patients.

Conclusion

Obstruction in the esophagus can result in impaction of a foreign body, which, most commonly, is food. Approximately one fifth of patients with foreign body of the esophagus will be found to have obvious underlying esophageal disease, with many of these patients having a history of caustic(alkali)-related narrowing or a history of previous repair of a tracheoesophageal fistula. In the adult age group, other causes include spasm, diverticula, Schatzki's rings, and reflux strictures. It is possible that additional cases of significant motility abnormalities might be found as etiologic factors if manometric testing were performed in selected patients. The group of patients with obstruction after repair of a tracheoesophageal fistula represents a particularly complex problem with dysmotility, recurrent stenosis, and reflux esophagitis playing a role.

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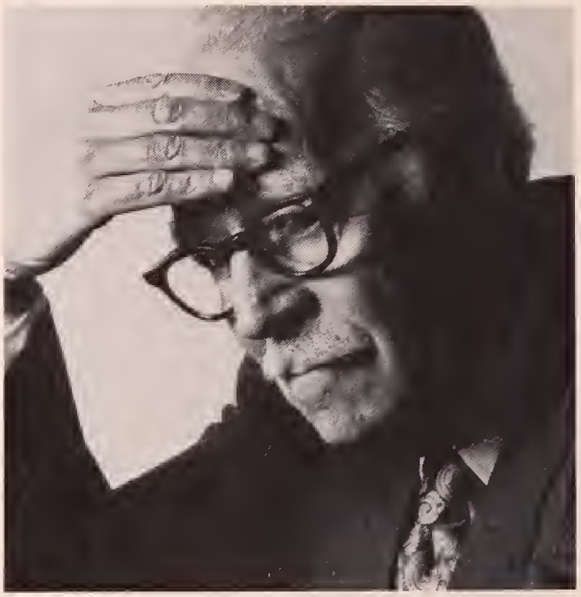

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Atherosclerosis Risk Factors in Urban Black Children

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Atherosclerosis is a complex disease process of uncertain pathogenesis. Several risk factors implicated include hypercholesterolemia, hypertension, and cigarette smoking.[1] The basis for racial and ethnic differences in the frequency and clinical manifestations of atherosclerosis is not understood.

There is reportedly[2–5] a higher incidence of cerebrovascular atherosclerotic disease in blacks than in whites due partially to a higher prevalence of hypertension and its complications.[1–7] The lower incidence of coronary atherosclerosis in blacks, especially males, even with hypertension, may be related to differences in lipid and lipoprotein levels. Blacks have a higher level of plasma HDL (high density (alpha) lipoproteins) than whites, which offers some protection against coronary atherosclerosis.[6,8–10]

There are limited data available regarding distribution and prevalence of cardiovascular risk factors in a black urban population, especially among children. The present study was designed to characterize the distribution of the levels of lipids, to estimate the prevalence of hyperlipidemia, and to investigate the possible influences of age, sex, race, socioeconomic factors, blood pressure, weight, and lipids in this group.

Subjects and methods

Data were collected during routine physical examination for schools, day care, and summer employment programs, in 1975 to 1977. Informed parental consent was obtained. A total of 1,058 children (595 boys and 463 girls), 4 to 18 years, enrolled in the children and youth programs at the Jewish Hospital and Medical Center of Brooklyn, New York, was included. This population was not a sample, but comprised the entire population who gave consent for study and who were available to the senior author. All were welfare recipients in the Bedford Stuyvesant area of Brooklyn, and were apparently healthy, with no signs of frank malnutrition at the time of examination. Children with anemia and sickle cell disease, or trait, were excluded.

The standing height of the children was measured from heel to crown, with the subject in bare feet. Body weight was measured with the subject in undergarments, without shoes, on a beam-type balance scale, calibrated with standard weight.

Blood pressure was obtained before venipuncture in a supine position, using a mercury manometer and appropriate-size cuffs as described in a previous publication.[11]

Blood for lipid studies was obtained after an overnight fast, while subjects were on their usual diet (serum with gross chylomicronemia were excluded from the study). The serum was analyzed for cholesterol by a modified Liebermann-Burchard method, as adapted for use on the Technicon Autoanalyzer I.[12] The standard curve employed was based on dilutions of General Diagnostics Serachol (Elevated Serum Cholesterol Reference and Control), and assay values have been obtained by the Babson method.[13]

Serum triglyceride measurements were obtained using the method of Bucolo and David[14] as employed for the Calbiochem Triglycerides-Glycerol (3 vial) Reagent kits and adapted for use on the Abbot ABA-100 Enzyme Analyzer. This method has been correlated ($r = 0.993$) with the method of Kessler and Lederer[15] as reported by Calbiochem (Doc-No L03092). Reference sera (standardized by the Center for Disease Control, Atlanta, Georgia) have been used in other surveys, but were not available for current study.

Nutritional history

Dietary histories were obtained by a registered dietitian, during nutrition counselling sessions with children and available parents, (usually the mother) and the portions of food estimated from 24 hour recall history. The figures selected represent minimal daily intake. However, variations may occur on nonschool days, holidays, and vacation periods when heavier breakfasts, special treats, or erratic snacking is common.

Age Stratification

Children were stratified arbitrarily into four age groups coinciding with early and late childhood and early and late adolescence.

Study design and statistical analysis

This is a cross-sectional study of four specific age groups in urban black boys and girls. The study variables included weight, height, blood pressure, serum cholesterol, and triglyceride levels. Mean differences among the groups were demonstrated by the analysis of variance (F test). While relationships between any two variables were shown by the coefficients of correlations (see correlation matrix in Tables I and II), the variance test for homogeneity of the binomial distribution (X^2) was carried out to detect any deviation in linear trends in proportions.

Results

The typical daily intake estimated from 24 hour recall history in five- to eight-year-olds is 520.4 Gm. of carbohydrates, 252.1 Gm. of fats, and 125.6 Gm. of proteins. In 9 to 16 year olds, the daily carbohydrate intake was 715.7 Gm., fats 421.4 Gm., and protein 243.6 Gm. About 80 to 90 percent of fats consumed were of saturated type. There were no significant intersex differences noted in the dietary pattern.

Serum cholesterol and triglyceride levels were correlated with height, weight, and blood pressure in 1,058 black children, ages 4 to 18 years, from the Bedford Stuyvesant area of Brooklyn, New York. Among boys, there was a significant decline in serum cholesterol levels starting at the age of 13, with the lowest level at age 17 years. In girls, there was a similar, more gradual statistically nonsignificant decrease in cholesterol levels, starting at age 11, and reaching the lowest level at age 16 years. In girls, the triglyceride levels began to fall at age 11, reaching the lowest level at age 17 years. In boys there was no discernible trend. A significant (p <0.001) inverse correlation was found between cholesterol and age, weight, and height, only in boys. Serum triglyceride levels correlated inversely with age, weight, and height, only in girls. Serum cholesterol and triglyceride levels did not significantly correlate with systolic or diastolic blood pressure in either sex.

Figure 1A and 1B show the mean plus or minus standard errors of height, weight, systolic and diastolic blood pressure, cholesterol, and triglycerides.

Serum cholesterol (*Tables III and IV*)

The mean serum concentration of cholesterol in boys, was constant from age 4 through 11 years, at

TABLE I. Correlation matrix in black boys

			Blood Pressure			
	Height	Weight	Systolic	Diastolic	Serum Cholesterol	Serum Triglyceride
Age	0.916	0.798	0.528*	0.276*	−0.240*	0.023
Height	...	0.876	0.550*	0.293*	−0.238*	−0.011
Weight	...	...	0.599*	0.322*	−0.173*	−0.014
Systolic blood pressure	...	...	...	0.582*	−0.135*	−0.005
Diastolic blood pressure	...	...	...	...	−0.070	0.066
Serum cholesterol	...	...	...	...	...	0.034
Serum triglyceride	...	...	...	...	...	...

* P < 0.001.

TABLE II. Correlation matrix in black girls

			Blood Pressure			
	Height	Weight	Systolic	Diastolic	Serum Cholesterol	Serum Triglyceride
Age	0.869	0.526	0.482*	0.237*	0.008	−0.157
Height	...	0.489	0.544*	0.299*	−0.005	−0.144
Weight	...	...	0.266*	0.092	−0.083	−0.086
Systolic blood pressure	...	...	...	0.605*	0.037	0.041
Diastolic blood pressure	...	...	...	...	0.062	0.028
Serum cholesterol	...	...	...	...	...	0.017
Serum triglycerides	...	...	...	...	...	...

* P = < 0.001.

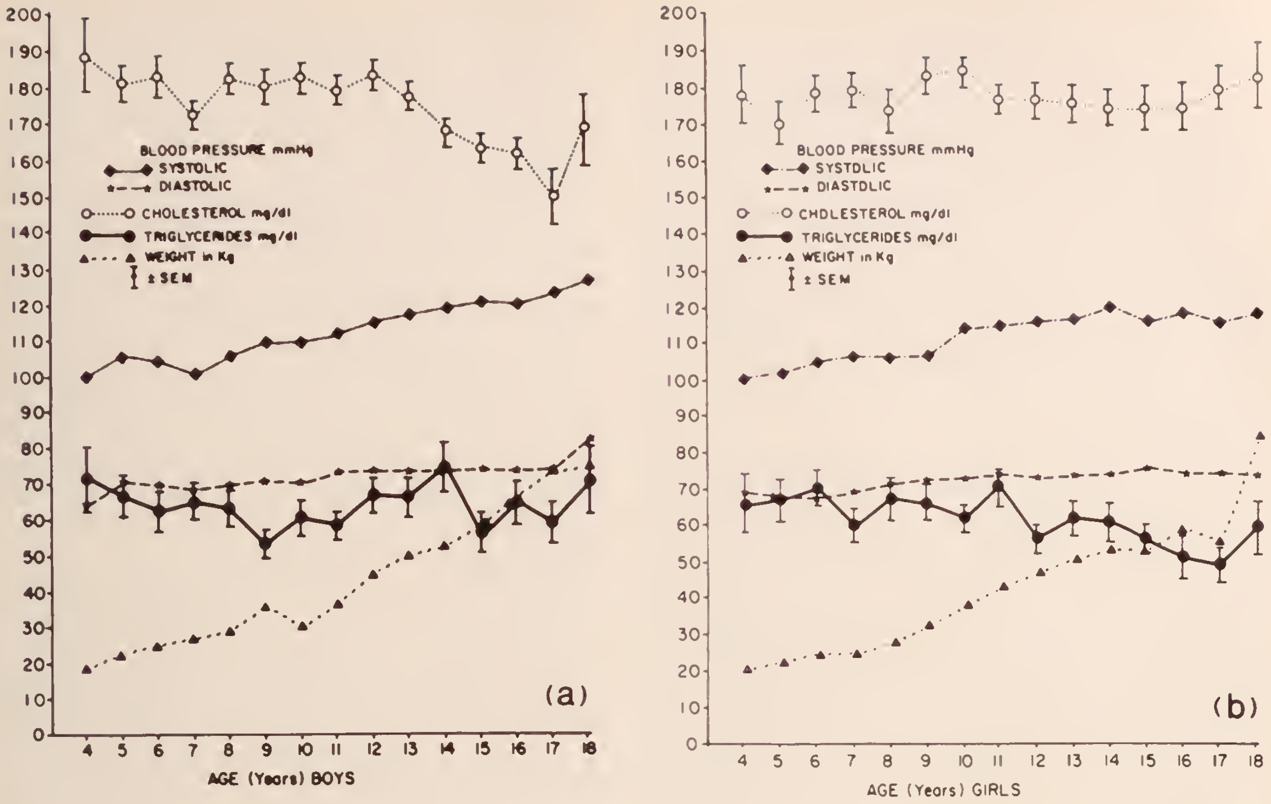

FIGURE 1. Relationship of lipids with weight and blood pressure in (A) black girls, and (B) black boys.

about 180 mg. per deciliter, decreasing to 159 mg. per deciliter in the 15 through 18 year age group. The lowest level was attained at age 17 (149 mg. per deciliter) and then increased to 167 mg. per deciliter by age 18. The decline was significant (F value = 9.34, $p < 0.001$).

However, in girls, the mean serum cholesterol did not vary significantly with age (F value = 0.712; p was not significant).

Serum triglycerides

In boys, the mean serum triglyceride level did not show significant variation (F value = 1.65, $p < 0.2$); in girls, the mean concentration of serum triglycerides remained relatively constant at about 65 mg. per deciliter from age 4 through 11 years, and declined significantly to a level of 51 mg. per deciliter at 15 to 18 year age group (F value = 4.34, $p < 0.001$).

Blood pressure

The mean levels of systolic blood pressure increased with age from 103 mm. Hg in the 4 to 7 year age group, to 121 mm. Hg in the 15 to 18 year age group (boys), and increased from 103 mm. Hg in the 4 to 7 year age group, to 116 mm. Hg in the 11 to 15 year age group, and then remained constant (girls).

Similarly, the mean diastolic blood pressure rose from 68 mm. Hg in the 4 to 7 year age group, to 75 mm. Hg at 15 to 18 years (boys), and then remained constant up to 18 years (girls). The increased systolic and diastolic blood pressure with age, was significant ($p < 0.001$) in both boys and girls.

Statistical correlation

Correlation of lipids with height, weight, and age (Tables I and II). In boys, a significant ($p < 0.001$) inverse correlation was found between cholesterol and weight, height, and age. In girls, serum triglyceride showed an inverse correlation with height, weight, and age, but this trend was not statistically significant. In boys, serum triglyceride values did not show a correlation.

Correlation between lipids and blood pressure (Tables I and II). There was no correlation noted between serum cholesterol and systolic blood pressure in either sex. However, a positive correlation ($p < 0.05$) was found between cholesterol and diastolic blood pressure at age 17 in boys, and at age 8 in girls.

There was no significant correlation between serum triglyceride and systolic and diastolic blood pressure, except in boys at age 13, and in girls between triglyceride and systolic blood pressure, at age 11 and 16 years, and with diastolic blood pressure at 8, 11, and 15 years of age ($p < 0.05$).

Prevalence of hyperlipidemia

If 230 mg. per deciliter was considered the upper limit of normal for cholesterol in children,[16] the proportions of boys with hypercholesterolemia in the four age groups would be 6, 5.5, 4.2, and 2.3 percent respectively ($X^2 = 31.2$, $p < 0.01$) and in girls, 3.4, 4.6, 3.9, and 5.5 percent respectively.

Using 140 mg. per deciliter of serum triglycerides as upper limits of normal,[16] the incidence of hypertriglyceridemia in the four age groups of boys would be 3.7, 3.7, 4.2, and 5 percent respectively, and in girls 3.4, 2, 1.5, and 0 percent respectively. No significant correlation with age was noted.

Comment

Recent studies of serum cholesterol and triglyceride levels were conducted among white middle-class children[17-21] except one from east Baltimore.[22] Others have included only small proportions of blacks from rural communities.[17,18,23] The present report, in contrast, is devoted exclusively to urban blacks. It showed significantly decreased cholesterol levels among boys of 11.6 to 15.5, and 15.6 to 18.5 years, compared with those of 3.6 to 7.5, and 7.6 to 11.5 years ($p < 0.001$) with no major changes in girls. Decreased cholesterol levels in pubescent males is consistent with prior reports,[17,23,24] including three cross-sectional,[25-27] and one longitudinal study.[28]

However, its absence in other studies[20,21,29] suggest that the finding is inconsistent. The decline in serum cholesterol level was not significant in girls in the present study, but some[22,23,27,28] have reported this decline in both sexes.

Decreased plasma cholesterol level in adolescent boys and triglyceride levels in girls may reflect hormonal changes in adolescence.[9,10,24] It is postulated[22] that androgens influence plasma lipoprotein levels. This may explain the more pronounced decrease in males than females at puberty.

The decline observed in the serum triglyceride levels in pubescent girls differs from prior reports.[17,20,23,24] Of increased fasting serum triglyceride levels with age in both boys and girls, our observation of slightly higher serum triglyceride levels in boys at puberty is consistent with Ellefson et al.[24] observation.

Why our serum cholesterol and triglyceride levels are higher than others is not clear.[17,18,22,23] These differences may reflect variation in environment, dietary habits, or laboratory methods. A dietary survey revealed high saturated fat intake in our study subjects, while others have not provided dietary analysis. A survey has reported lower mean cholesterol levels in teenage children from families with

TABLE III. Mean weight, height, blood pressure, cholesterol and triglyceride values in black boys

Age Group Mean Age (Years)	Number of Children	Weight (Kg.)	Height (cm.)	Blood Pressure mm. Hg Systolic	Blood Pressure mm. Hg Diastolic	Cholesterol mg./dl.	Triglyceride mg./dl.
3.6 to 7.5 5.75	136	23.6 ± 5*	118.6 ± 10*	103.0 ± 9*	68.0 ± 6*	179.8 ± 33*	65.4 ± 34*
7.6 to 11.5 9.46	196	33.8 ± 9	137.6 ± 10	108.0 ± 10	71.0 ± 7	181.0 ± 30	58.5 ± 32
11.6 to 15.5 13.43	188	51.5 ± 13	160.0 ± 10	117.0 ± 12	73.0 ± 8	173.0 ± 30	65.7 ± 40
15.6 to 18.5 17.0	72	69.8 ± 19	174.5 ± 11	121.0 ± 10	75.0 ± 8	159.0 ± 31	63.5 ± 31
		F = 264.98 $p < 0.001$	F = 552.64 $p < 0.001$	F = 55.56 $p < 0.001$	F = 13.66 $p < 0.001$	F = 9.34 $p < 0.001$	F = 1.65 $p = <0.2$ NS

* ± SD one standard deviation.
NS = Not significant.

TABLE IV. Mean weight, height, blood pressure, cholesterol, and triglyceride values in black girls

Age Group Mean Age (Years)	Number of Children	Weight (Kg.)	Height (cm.)	Blood Pressure mm. Hg Systolic	Blood Pressure mm. Hg Diastolic	Cholesterol mg./dl	Triglyceride mg. per dl.
3.6 to 7.5 5.73	113	23.0 ± 6*	116.5 ± 11*	103.0 ± 9*	68.0 ± 7*	175.5 ± 30*	64.0 ± 30*
7.6 to 11.5 9.34	150	35.2 ± 10	138.6 ± 8	109.0 ± 9	71.0 ± 7	178.5 ± 28	65.0 ± 30
11.6 to 15.5 13.46	128	50.9 ± 11	157.7 ± 8	116.0 ± 11	73.0 ± 7	173.5 ± 28	57.6 ± 26
15.6 to 18.5 17.0	72	62.5 ± 11	158.4 ± 6	116.0 ± 10	72.0 ± 7	176.8 ± 31	51.0 ± 25
		F = 40.99 $P < 0.001$	F = 397.91 $P < 0.001$	F = 34.39 $P < 0.001$	F = 11.59 $P < 0.001$	F = 0.712 NS	F = 4.34 $P < 0.001$

* ± standard deviation.
NS = Not significant.

income less than $3,000, than among those with income over $10,000.[19] This study was limited to children only from poor families and, hence, income comparison is not possible.

Blood pressure and serum cholesterol and triglyceride levels were not correlated in this study. A significant inverse relationship between serum cholesterol and height, weight, and age in boys suggests that obesity is not associated with elevated cholesterol levels in boys. The basis for the decline in serum cholesterol levels in boys and serum triglyceride levels in girls at puberty needs further study. The underlying mechanism may be of importance in controlling or preventing atherosclerotic vascular disease.

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Ultrasonography in Diagnosis and Management of Palpable Breast Masses*

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This study was designed to investigate the capability of ultrasonography to provide additional diagnostic information. A total of 126 patients with palpable or mammographic breast masses, requiring surgical biopsies, were given physical examinations and then evaluated by sonography and mammography. In the presence of palpable mass, sonographic scanning was superior to palpation or mammography in discriminating a cyst from a solid tumor. Ultrasound examination accurately diagnosed cystic masses in 95 percent (18 of 19 patients) whereas mammography correctly identified the cystic masses in only 57 percent (8 of 14 patients) ($P <0.01$). For fibrocystic masses, the diagnostic accuracy of sonography was 86 percent (43 of 50 patients) versus a 68 percent accuracy by mammography (21 of 31 patients) ($P <0.10$). The high resolution of ultrasonography in the diagnosis of cystic and fibrocystic masses led to a substantial reduction in the number of biopsies. Only one half (9 of 19) of the patients with cystic masses, and about one third (19 of 50) of those with fibrocystic masses, required excisional biopsy. The rest had aspiration (10 of 19). Forty-four patients with solid masses (6 fibroadenomas and 38 carcinomas) and 8 patients with nipple discharge, underwent surgical biopsy. Breast cancers were correctly diagnosed in 79 percent (30 of 38) by sonography, and 83 percent (30 of 36) by mammography ($P <0.90$). Five nonpalpable invasive breast cancers were detected solely by mammography. Ultrasonography alone is unsatisfactory for detection and early diagnosis of breast cancer due to its inability to visualize microcalcifications. Ultrasonography in conjunction with mammography and careful surgical assessment can spare many patients with benign lesions from unnecessary, costly, and stressful surgical biopsies.

In the past few years, various procedures have been tested in an attempt to develop a noninvasive imaging system for the detection of breast cancer.[1–8]

The value of mammography in the detection and diagnosis of early, potentially curable breast cancer, has been fully demonstrated by most investigators in current practice and in screening detection programs.[9–13] The major contribution of mammography lies in the detection of a nonpalpable, asymptomatic breast cancer, and a lower incidence of axillary node metastasis in patients with early diagnosed breast carcinoma.[14–17]

The increased use of x-ray mammography, considered by some indiscriminate, as well as the possible risk of subsequent radiation-induced breast carcinoma,[18] has led to the issue of new guidelines by The National Cancer Institute and American Cancer Society.[10,11] A recent consensus development meeting emphasized the necessity of improving the technology for mammography by reducing the amount of radiation delivered, and the necessity of developing alternative, accurate, nonhazardous imaging techniques, such as thermography, ultrasonography, and biologic markers.[10]

Thermography, as a possible alternative to mammography for routine screening, was unsatisfactory, since this method showed positive findings for only 40 percent of breast cancers detected. Moreover, 40 to 50 percent of healthy breasts, and 47 percent of benign lesions, also showed positive findings by thermography.[5,10,11]

In an earlier study of 209 patients with breast disease, we described the clinical application of ultrasonography; it was shown that ultrasound examination could be beneficial in the differential diagnosis of palpable lesions of the breast.[7]

The present report describes the capability of ultrasound scanning to provide additional diagnostic information for therapeutic decisions in patients with palpable or radiologic breast masses, and the potential of sonography for reducing the number of surgical biopsies in benign disease, that could otherwise be required after physical examination or mammography.

Methods

A total of 126 patients with palpable or radiologic masses requiring surgical biopsy were given physical examinations and then evaluated by ultrasound and mammography. There were 50 patients with fibrocystic disease, tumoral form; 19 patients with cystic masses; 8 with nipple discharge; 6 with palpable solitary fibroadenoma; 5 male patients with gynecomastia and a palpable mass; and 38 patients

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with histologically confirmed invasive cancer. The sonographic imaging of breast masses was obtained using a high resolution ultrasound scanner Biosound® system (Bio-Dynamics, Inc., Indianapolis, Indiana). Longitudinal and transverse scans of the mass were performed using an 8 megahertz transducer with a 4 cm. focal depth. Images were recorded on television tape, and a permanent record was made on x-ray films. The details of the echographic equipment and its characteristics were previously described.[7]

A mass with well-defined regular margins, a homogenous internal dark fluid content, and the presence of lateral shadowing at the poles, was diagnosed as a benign cystic mass. The presence of multiple small cysts, down to 2 mm. in diameter, against a bright reflective fibrotic background of the palpable mass, sonographically was diagnosed as fibrocystic disease.

In patients with nipple discharge, with or without a palpable mass, ultrasound scanning of the ducts was done to detect the dilated duct or the ducts in which the discharge originated and, when possible, to visualize its content. A well circumscribed mass with sharply defined, regular margins, and coarse internal regular homogenous content, was defined as a benign fibroadenoma. Irregular, spiculated tumors with solid areas and multiple internal heterogenous echoes that were not uniform in size, were most often designated as possible carcinoma.

Of the 126 patients, mammographic examinations were performed on 95 patients. Mammographic examinations were deferred in 29 patients with cystic masses that were confirmed by sonography and aspiration, and in some patients under age 35 with fibrocystic disease and fibroadenoma. Two patients with invasive breast carcinoma, one pregnant and another age 33, had no preoperative mammographic studies.

Nineteen patients had a total of 26 palpable cystic masses. Ten patients underwent needle aspiration with cytologic examination of the fluid obtained, and the remaining 9 patients underwent excisional biopsy. In patients who had aspiration, an immediate sonographic examination was done to confirm the clinical disappearance of the mass.

Another 19 patients with clinically diagnosed fibrocystic disease and a dominant mass that was confirmed by sonography and mammography, underwent surgical biopsy.

Thirty-one patients with clinically diagnosed fibrocystic masses, in which the sonographic and mammographic techniques indicated only diffuse fibrocystic disease with scattered mycrocysts in the area of the palpable mass which was similar to the rest of the surrounding breast tissue, were considered candidates for follow-up. All eight patients with nipple discharge underwent excisional biopsy. Two of the five male patients with gynecomastia had excision of the mass. All 44 patients with solid masses, either with benign, (6 fibroadenomas) or malignant features, (38 carcinomas) underwent surgical biopsy. The cytologic and pathologic findings were correlated with the preoperative examinations.

Results

Fibrocystic and cystic masses. In our experience, sonographic examination was superior to palpation or mammography in the detection of cystic or fibrocystic masses. In the presence of a palpable mass, ultrasound was useful in discriminating a cyst from a solid tumor. Ultrasonography accurately diagnosed fibrocystic masses in 86 percent of patients (43 of 50) and failed to visualize the palpable mass in 14 percent of patients (7 of 50). In 31 patients with fibrocystic masses who had mammographic studies, findings on x-ray mammography confirmed the presence in 68 percent of patients (21 of 31) and failed to detect its presence in 32 percent of patients (10 of 31) (P less than 0.10). The superiority of ultrasound diagnosis versus mammography, was clearly proved in the diagnosis of fluid-filled cystic masses. Ultrasonography visualized and correctly diagnosed cystic masses in 18 of 19 patients (95 percent) and 25 of 26 palpable cystic masses, permitting an accurate measurement down to a size of 2 mm.

Mammography was performed in 14 of these patients. The palpable cystic masses were radiologically identified in 8 patients (57 percent) (P less than 0.01). In the remaining six patients, the cystic masses were not visualized due to a marked increase in glandular density of the breast.

Following clinical examination alone, the positive diagnosis of cystic masses could be obtained in 11 of 19 patients.

The superiority of ultrasound diagnosis versus palpation and/or mammography in the diagnosis of cystic and fibrocystic masses was reflected in the reduced number of surgical biopsies performed. Nine patients with 12 cystic masses had excisional biopsy, and 10 patients with 14 cystic masses underwent needle aspiration followed by cytologic examination. An immediate sonogram insured that the cyst was completely evacuated. Figures 1 and 2 illustrate these data.

The indications for excisional biopsy of cystic masses were based on suspicious findings on mammograms in four patients, suspicious findings on a sonogram in another, two patients with polycystic masses, one with a recurrent hemorrhagic cyst, and one patient with a prior mastectomy for a lobular carcinoma in situ. A new, noninvasive lobular carcinoma was also found in the remaining breast in the vicinity of the cystic mass in this patient.

Of the 50 patients with fibrocystic masses who would usually require surgical biopsy, the number of biopsies was reduced to nearly a third (38 percent), following sonographic and mammographic examination. In this group of 50 patients, 44 with palpable fibrocystic mass and 6 with radiologic mass, surgical biopsy was performed in 19 patients (38 percent) and

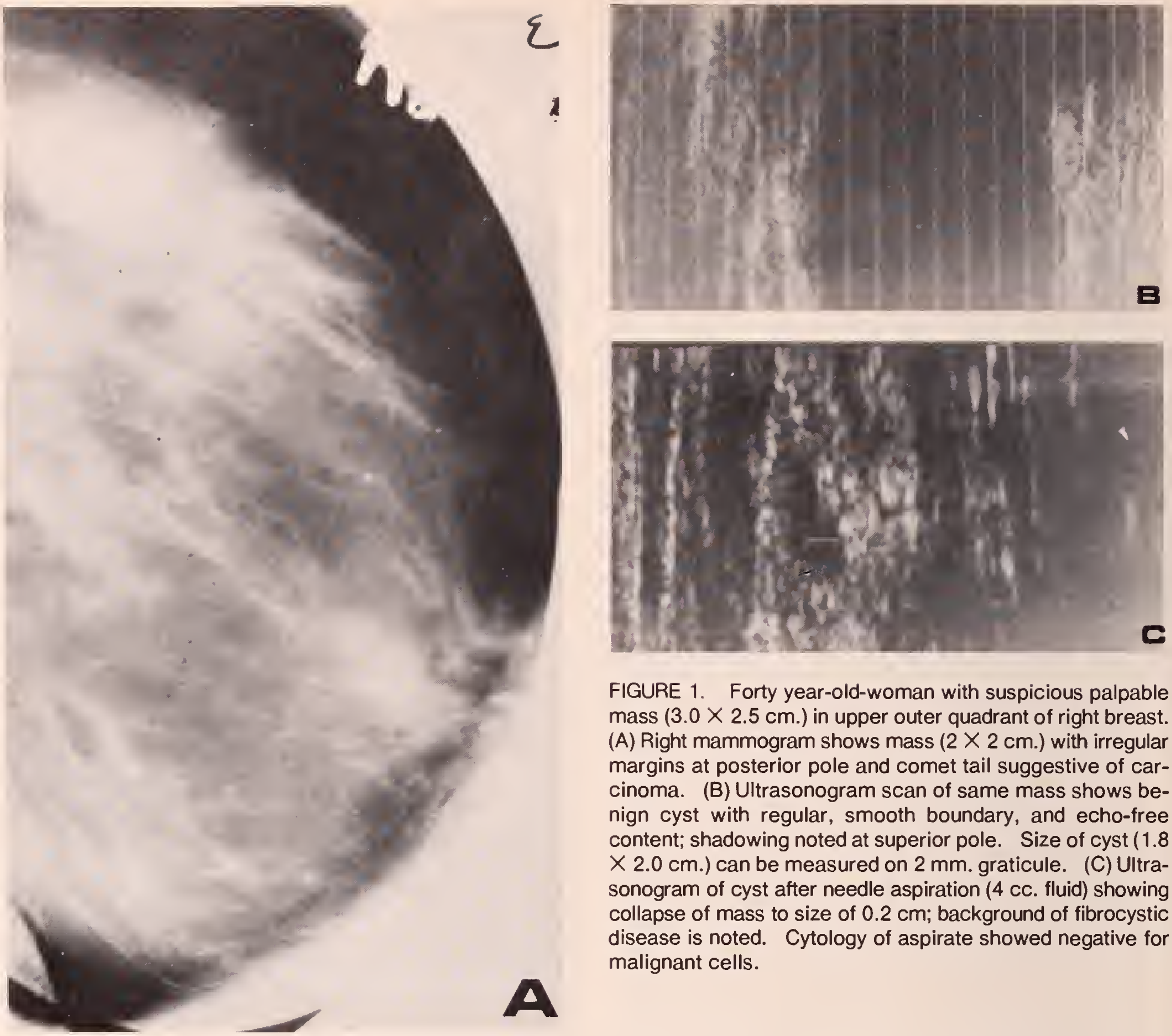

FIGURE 1. Forty year-old-woman with suspicious palpable mass (3.0 × 2.5 cm.) in upper outer quadrant of right breast. (A) Right mammogram shows mass (2 × 2 cm.) with irregular margins at posterior pole and comet tail suggestive of carcinoma. (B) Ultrasonogram scan of same mass shows benign cyst with regular, smooth boundary, and echo-free content; shadowing noted at superior pole. Size of cyst (1.8 × 2.0 cm.) can be measured on 2 mm. graticule. (C) Ultrasonogram of cyst after needle aspiration (4 cc. fluid) showing collapse of mass to size of 0.2 cm; background of fibrocystic disease is noted. Cytology of aspirate showed negative for malignant cells.

a follow-up decision was made in 31 patients (62 percent). Clinically, 36 of 44 (82 percent) palpable fibrocystic masses were suspicious or equivocal, which would ordinarily require surgical biopsy. Following mammography, biopsy was advised in 8 of 31 studied patients (26 percent) and follow-up in 15 of 31 patients (48 percent). Mammographic examination was not contributory for diagnosis and therapeutic decision in 8 patients (26 percent). Following sonographic examination, follow-up was advised in 28 of 50 patients (56 percent), surgical biopsy was advised in 17 of 50 patients, (34 percent) and in the other 10 percent (5 of 50 patients) findings were not contributory for diagnosis and therapeutic decision.

There was no statistically significant difference in favor of sonography in these therapeutic decisions in the follow-up or surgical biopsy group (P less than 0.15). However, regardless of the statistics, ultrasound examination correctly identified the disease more frequently, offered more refined details in visualizing fibrocystic disease, and permitted a more accurate and detailed description of the lesions than mammography, especially in the dense young breasts. Benign fluid-filled microcysts, as small as 2 mm., embedded in a dense fibrocystic matrix, were visualized by sonography, whereas they are difficult or impossible to detect by palpation or mammography. In 31 patients, the ultrasound examination showed only presence of fibrocystic disease in the area of the palpable mass. The pattern was similar to the rest of the breast tissue in its vicinity. X-ray mammography also detected only fibrocystic disease without presence of a radiologic mass or cluster of calcifications. These patients were considered candidates for follow-up.

Nineteen patients with fibrocystic mass, of which sonography or mammography identified its presence, underwent surgical biopsy confirmed by histologic examination.

Nipple Discharge. Sonographic examinations were made in eight patients with nipple discharge. Four patients had a bleeding discharge; one of these patients had a palpable mass 0.5 by 2.0 cm. in diam-

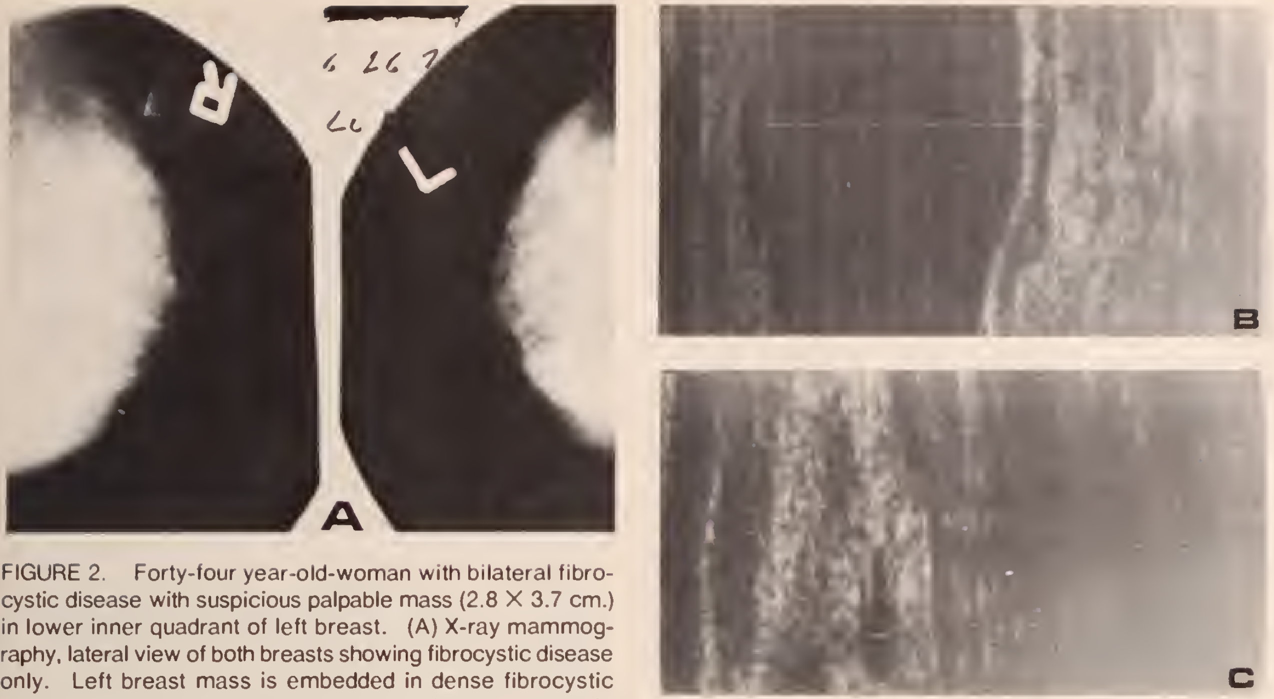

FIGURE 2. Forty-four year-old-woman with bilateral fibrocystic disease with suspicious palpable mass (2.8 X 3.7 cm.) in lower inner quadrant of left breast. (A) X-ray mammography, lateral view of both breasts showing fibrocystic disease only. Left breast mass is embedded in dense fibrocystic matrix. (B) Ultrasonogram graticle revealing typical cystic mass (1.8 X 2.0 cm.) in fibrocystic breast. Homogenous fluid content of cysts and thin wall well delineated. (C) Ultrasonogram after needle aspiration (6 cc. fluid) showing about complete collapse of lesion. Residual fibrocystic disease is visualized.

eter; the other four patients had serous or yellow-green discharge. All eight patients underwent excisional biopsy. The origin of the nipple discharge was clinically identified in all patients. A dilated duct, or ducts, were visualized sonographically in all patients. In two of four patients with intraductal papillomatosis, a patchy intraductal content was visualized. One in situ intraductal carcinoma was missed by both sonography and mammography. The other three patients had cystic ductectasia.

Fibroadenoma. Six patients had histologically confirmed fibroadenoma. Sonographic examination visualized all six palpable masses, confirming the preoperative diagnosis in four of six patients. One fibroadenoma was diagnosed sonographically as a cystic mass, and an aspiration attempt failed to remove fluid. In the other patient, a medulary carcinoma was suspected.

Mammography was done in four patients and fibroadenoma was detected in only one of four. In two patients mammography was deferred; one was too young at age 20, the other was a lactating postpartum patient.

Breast cancer. Thirty-eight patients with confirmed histologically invasive breast cancer were examined preoperatively by sonography and 36 by mammography. Five patients clinically had no palpable mass with only radiologic masses and/or a cluster of microcalcifications; four had minimal tumors below 1 cm.; three had tumors 1 to 2 cm.; 20 tumors measured 2 to 5 cm., and the remaining six tumors were larger than 5 cm.

Breast cancers were correctly diagnosed as true-positive or highly suspicious in 30 of 38 (79 percent) by sonography, and 30 of 36 (83 percent) by mammography (P less than 0.90). All five nonpalpable, asymptomatic breast cancers were detected preoperatively by mammography alone. Sonographic examination failed to visualize the malignancy in these five patients in spite of the fact that the suspicious radiologic area was carefully scanned. In the other three patients, the ultrasound examination did not visualize the palpable masses, because the characteristic echographic features of the malignant tumors were less distinct from the general background of the great excess of breast tissue.

Microcalcifications identified in 14 invasive carcinomas seen on mammography were not detectable by ultrasound. However, in the presence of palpable mass, ultrasound examination diagnosed four minimal breast cancers as solid suspicious masses (Fig. 3).

It is worth noting that in one 31-year-old pregnant patient who appeared in clinic with a fibrocystic mass, we found that ultrasound examination alone detected the presence of a suspicious lesion (mammography was not done). The lesion was later confirmed histologically as an invasive carcinoma.

Comment

The use of ultrasonography in breast pathology constitutes an important improvement in diagnostic techniques. The high resolution of ultrasound di-

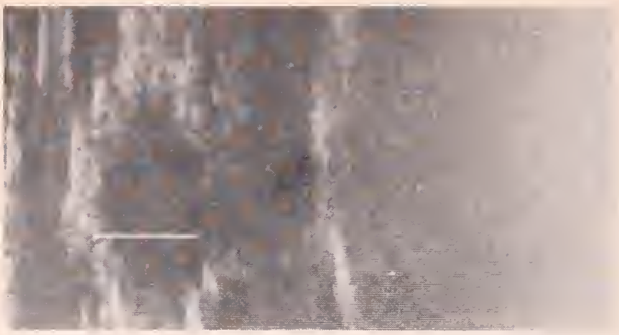

FIGURE 3. Sixty-seven year-old-woman with suspicious palpable mass (1 × 1 cm.) in right breast. Ultrasonogram scan revealed solid mass (0.8 × 1 cm.) (white line marker) with heterogenous internal content and irregular margins suggestive of carcinoma. Pathology revealed adenocarcinoma.

agnosis of cystic and fibrocystic masses offers the possibility of differentiating between a cyst and a solid tumor more accurately than palpation or mammography. This was reflected in the present study in which ultrasound examination accurately diagnosed cystic masses in 95 percent, (18 of 19 patients) and fibrocystic masses in 86 percent, (43 of 50 patients) and permitted localization and measurements of cysts down to a minimum size of 2 mm.

Our results in this regard seem to compare well with those of other investigators.[2,4,6]

Mammography is a highly sensitive method, especially when used in the diagnosis of early, minimal breast cancer; however, it is not always specific in the differential diagnosis of breast masses. Many benign palpable cystic or fibrocystic masses are not often recognizable in densely glandular breast tissue, or in the matrix of fibrocystic disease. When breast mass is discovered, a mammogram cannot differentiate between cystic and solid lesions.

In this study, mammography identified the palpable cystic masses in about one half of the patients studied, (8 of 14) and failed to detect its presence in the other half. Furthermore, seven of the eight cystic masses identified presented suspicious radiologic signs for malignancy. In the presence of fibrocystic masses, mammographic studies confirmed its presence in 68 percent of the studied patients (21 of 31). Physical examination in the most skillful hands, also suffers from lack of sensitivity and specificity in the differential diagnosis of palpable masses. About one half of the patients with cystic and fibrocystic masses appear clinically as suspicious masses.

The superiority of sonography versus palpation and/or mammography, in the diagnosis of cystic and fibrocystic masses, in this study led to a substantial reduction in the number of surgical biopsies.

In the present series, excisional biopsy was performed in less than one half of the patients with palpable cystic masses (9 of 19); the other 10 patients underwent needle aspiration.

Considering the fact that 8 of 19 patients had a clinical diagnosis of a suspicious nature, and 13 of 14 patients required surgical biopsy following mammographic studies, ultrasound examination demonstrated the potential of reducing the number of surgical biopsies in almost all of the patients studied with cystic masses. Furthermore, in patients where sonography diagnosed cystic masses and the aspiration completely evacuated the fluid content, the need for further mammography was avoided.

The proper treatment for simple cysts of the breast is still controversial. Currently it is acceptable to attempt a needle aspiration in the presence of a cystic mass.[6–8,19–23] However, numerous women with cystic masses, particularly between 30 and 50 years of age, are still hospitalized for excisional biopsies of a so called "suspicious mass," which can be better diagnosed preoperatively by ultrasonography. An ultrasound examination, in the presence of a palpable mass diagnosed as a cystic lesion, eliminates the need for further mammography and surgical biopsy, but should be followed by needle aspiration as a further diagnostic procedure. Following aspiration, another sonogram is necessary to insure that the cyst was completely evacuated. An excisional biopsy is indicated if: (1) the aspiration attempt should fail; (2) if the cyst recurs within one month following aspiration; (3) grossly bloody fluid is obtained; and (4) findings on cytologic examination are suspicious for malignancy. Some investigators consider routine cytology unnecessary unless the fluid appears grossly hemorrhagic.[19,22]

One objection to needle aspiration of cystic masses has been the presence of intracystic papillary carcinoma. Its incidence has been minute, less than 1 percent.[22,24] Another, and major, objection to needle aspiration of cystic masses has been the presence of associated proliferative lesions with premalignant changes or unsuspected noninvasive or invasive microscopic carcinoma in the vicinity of the cyst.[25,26]

In the present series of 69 patients with palpable cystic or fibrocystic masses, there were three patients who had lobular carcinoma in situ in association with fibrocystic disease, florid sclerosing adenosis, papillomatosis, and so forth. The preoperative diagnosis of suspicious carcinoma was made in one patient by the presence of a cluster of microcalcifications on mammography; by a suspicious sonogram in the second patient; and by the history of lobular carcinoma in situ in the other breast of the third patient.

In a recent American College of Surgeons National Cancer Survey on 23,972 patients with histologically confirmed breast cancer, the overall incidence of noninvasive lobular and ductal carcinomas was 1.4 percent.[27] In recent years, more cases of minimal invasive and in situ carcinomas are being detected by mammography long before a mass is palpated.[9,12,14,16]

In the present study, a substantial reduction in the number of surgical biopsies, nearly one third, was attained in patients with palpable fibrocystic masses

(19 of 50 patients).

In spite of somewhat similar results obtained with mammography, ultrasound examination offered more detailed description of fibrocystic disease in the area of the palpable mass and its vicinity. The greatest benefit of ultrasonography in these cases rests in the accurate demonstration of cystic and fibrocystic masses when other diagnostic modalities, such as physical examination and mammography, are inconclusive. Because of the high resolution of ultrasonography, the need for certain breast surgical biopsies can be eliminated in favor of aspiration or follow-up policy. Three quarters of the surgical breast biopsies done today are for benign disease, mainly cysts and fibrocystic disease. Many unnecessary biopsies can be spared, hospital costs eliminated, and emotional trauma prevented if careful clinical, mammographic, and sonographic evaluation is made before operation.

In breast cancer, our experience shows that ultrasound alone is unsatisfactory for detection and early diagnosis. In the present study, breast cancers were correctly diagnosed preoperatively in 79 percent of patients, (30 of 38) by sonography, and 83 percent by mammography (30 of 36). This observation is in general accordance with the data presented by other investigators.[3,4,6,8] The high rate of accuracy averaging 78 to 90 percent was seen mainly for tumors larger than 2 cm.[3] For tumors less than 2 cm., the accuracy rate was unsatisfactory (50 to 69 percent) even when using the recently developed gray scale echography.[3,4] Generally, tumors below 1 cm. in diameter have been extremely difficult to detect by sonography. One of the most difficult problems in the sonographic diagnosis of solid masses, particularly of minimal breast carcinomas, is related to the difficulty of differentiating between various types of soft tissue images and artifacts.[1,6] Another major limitation of sonography in the diagnosis of minimal and nonpalpable, asymptomatic breast cancer, is its inability to visualize the presence of microcalcifications. In the present study, all five nonpalpable invasive breast carcinomas were detected solely by mammography as a radiologic mass and/or cluster of microcalcifications. These could not be visualized by ultrasound, in spite of the fact that an effort was made to scan, very carefully, the suspicious mammographic area. Also, mammographic microcalcifications present in 14 cases of breast carcinomas, were not visualized by the sonographic procedure.

Similar results were obtained in a previous study of patients with nonpalpable breast carcinomas detected only by mammography.[7] As yet, microcalcifications have not been imaged by sonography,[5,6] but new procedures to visualize sonographic microcalcifications are being evaluated in experimental models.[28] Fine, punctate microcalcifications clustered in a localized area, present on mammography, appear in approximately one third of the nonpalpable carcinomas, and constitute a strong criteria for biopsy.[13,15,16] Based on our present experience, ultrasound examination can not be used as a substitute for mammography in the detection and diagnosis of breast cancer.

Conclusion

The results of this study indicate that ultrasound is useful in the differential diagnosis of palpable lesions of the breast.

The high resolution of ultrasonography in the diagnosis of cystic and fibrocystic masses suggests that this method is an excellent adjunct to careful surgical assessment and mammography. This offers the possibility of reducing the number of operations in benign diseases of the breast, in addition to sparing many patients unnecessary, costly, and often emotionally stressful surgical biopsies.

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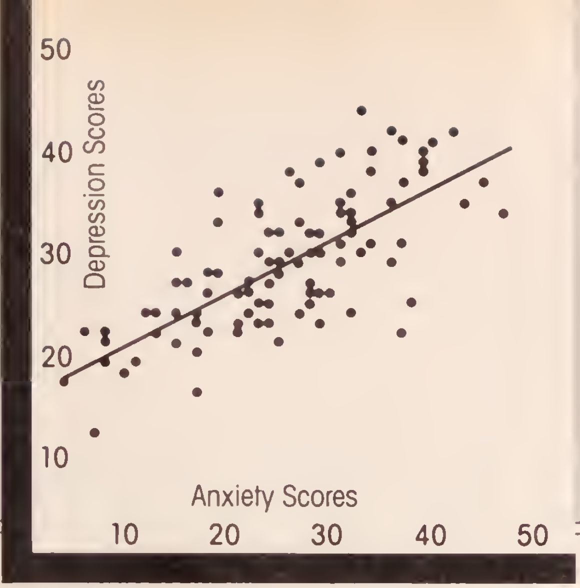
The graph illustrates the close correlation between depression and anxiety derived through the MMPI and the Taylor Manifest Anxiety Scales in 100 nonpsychotic psychiatric patients. The coefficient of correlation is 0.7. As depression increased, so did the anxiety levels.[1]



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Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated sedative effects may be additive Discontinue several days before surgery Limit concomitant administration of ECT to essential treatment See Warnings for precautions about pregnancy Limbitrol should not be taken during the nursing period Not recommended in children under 12

In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects

Adverse Reactions: Most frequently reported are those associated with either component alone drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic. Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns

Anticholinergic Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue

Endocrine Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive I.V administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response Reduce to smallest effective dosage when satisfactory response is obtained Larger portion of daily dose may be taken at bedtime Single *h s* dose may suffice for some patients Lower dosages are recommended for the elderly

Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required Limbitrol 5-12 5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) — bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50

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Medical News

AMA publishes directory of allied health education

The Allied Health Education Directory, 9th edition, published by the American Medical Association, is now available.

The Directory is a comprehensive and authoritative source of information on 26 allied health occupations and nearly 3,000 educational programs accredited by the Committee on Allied Health Education and Accreditation.

Students and counselors will find the Directory an excellent source of information about the 26 career areas in allied health and the requirements for entering these fields. Among the 26 professions listed, students will learn about the larger areas, such as medical laboratory technology and radiologic technology, and about newer professions such as the physician's assistant, emergency medical technician-paramedic, and surgeon's assistant. The complete list of institutions and programs offering allied health educational programs in the U.S. and its possessions indicates the varied choices available to students.

Librarians will want the Directory as part of a comprehensive reference section on allied health education and career information. Hospital administrators will find the Directory an important tool in identifying qualified allied health personnel. Educators will consult the Directory for guidance in meeting national standards in programs they currently offer and in planning new programs in allied health.

The listings of 2,962 allied health educational programs for the occupational areas are presented in alphabetical order by state in each occupational group. Program listings include: the names of the sponsoring institutions, program officials, prerequisites, dates classes begin, program length, tuition, and degree, or certificate awarded.

The description of the general accreditation process is supplemented by a separate section containing a clear step-by-step explanation of the process for each occupational area. The statistical data present a comparative picture of the growth of allied health and indicate its concerns.

A separate section offers current and valuable information on the availability of financial aid including a selected bibliography and a list of sources of information by state.

Copies are available from the American Medical Association, Order Department, OP-049, PO Box 821, Monroe, WI 53566. Single copies are $14.50.

New immunizable disease surveillance system

In conjunction with the New York State Department of Health's Bureau of Disease Control, the Nassau County Department of Health initiated an Immunizable Disease Surveillance System on January 29th. Its goals are to increase case reporting and decrease reporting delays so that

Material for inclusion in the medical news section must be received eight weeks prior to publication date.

continued on page 1128

Electrocardiograms of the Month

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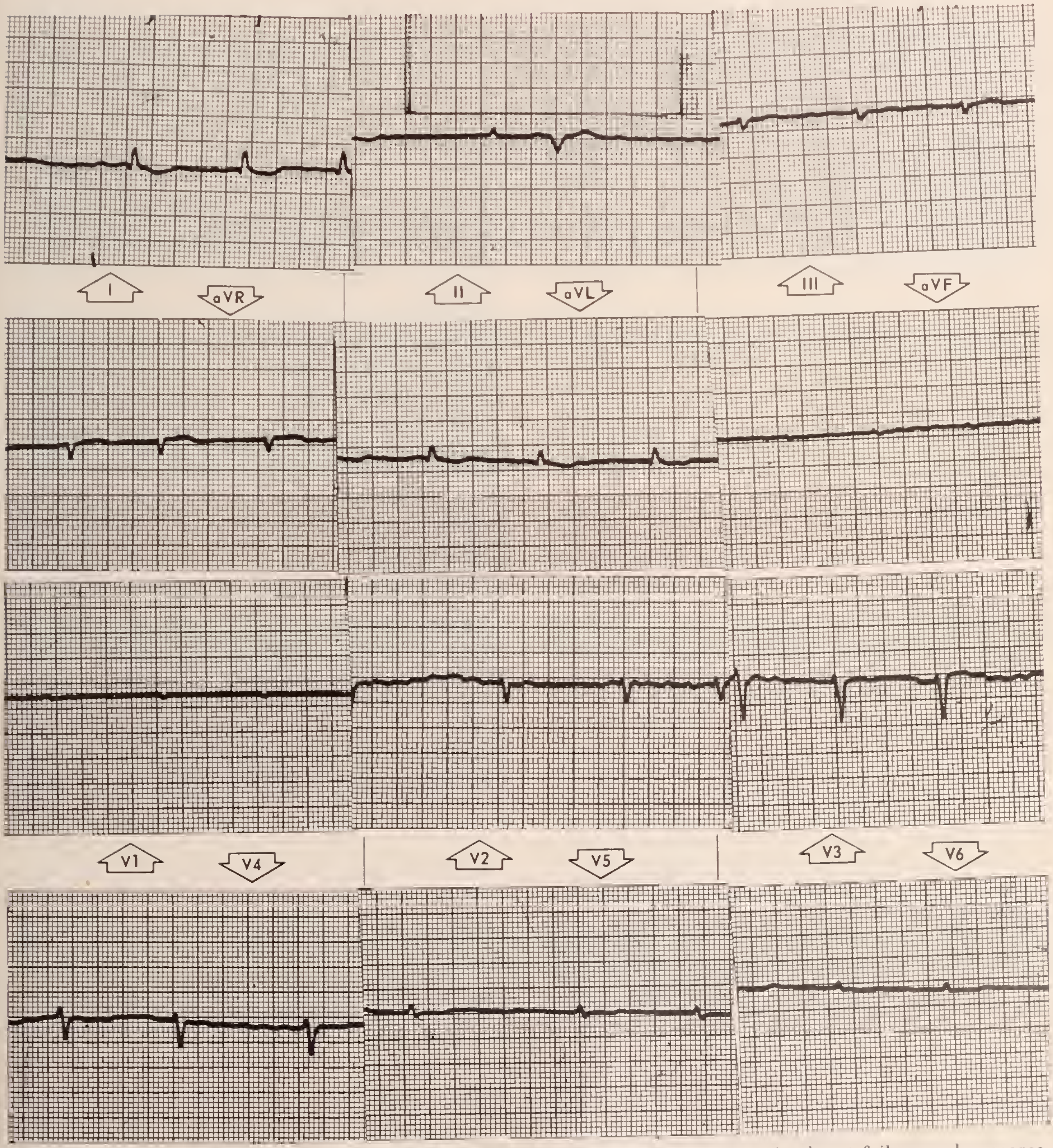
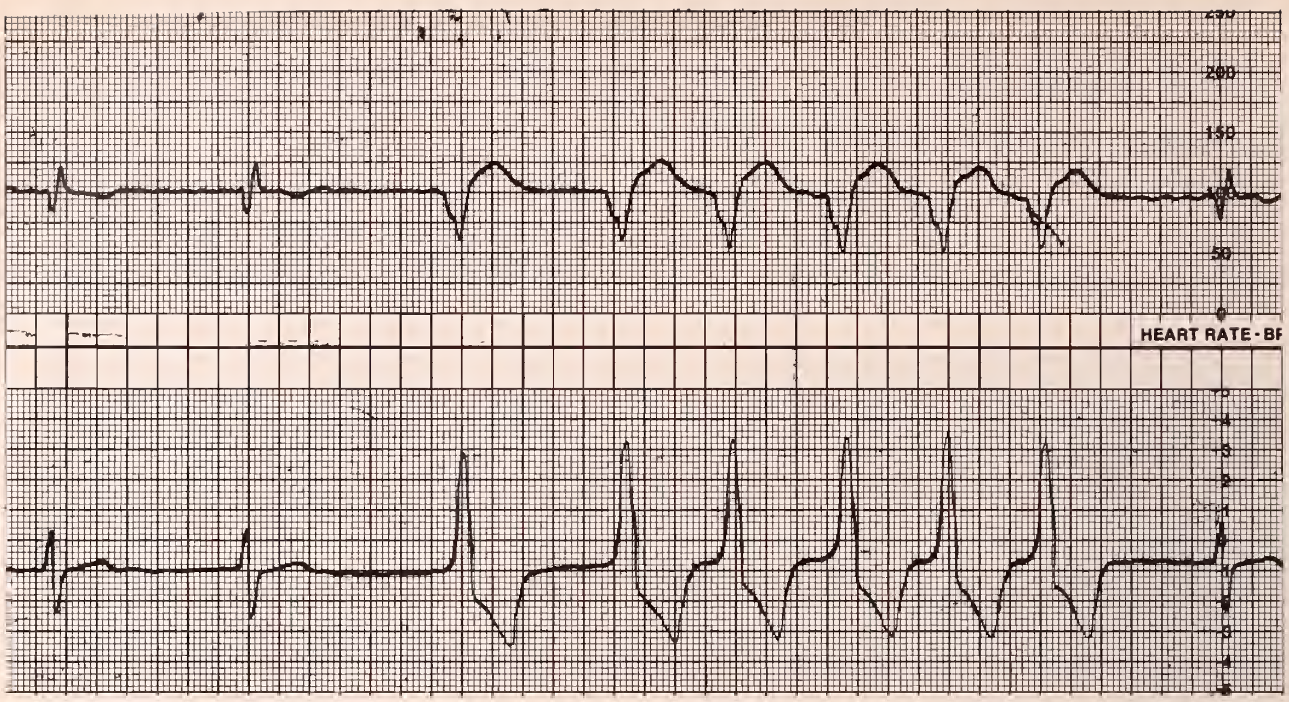


QUESTION 317. The patient is a 60-year-old man with severe progressive congestive heart failure and anasarca. What is the diagnosis?



QUESTION 318. Two lead Holter monitor strip. What is the interpretation?

Electrocardiograms of the Month

ELUCIDATION

Question 317. The rhythm is atrial fibrillation with a ventricular rate of 60 to 70 minutes. An aberrant beat is seen in lead 2. This beat is either a ventricular premature depolarization or an aberrant supraventricular beat. There is diffuse low voltage and nonspecific S-T segment abnormalities in all leads. In the precordial leads, the R/S ratio does not change from V_2 to V_4 (poor R wave progression). The R wave becomes dominant in V_5 and V_6 but remains minute. The QRS configuration in the precordial leads may be due to either electrical rotation of the heart (clockwise rotation) or, less commonly, anterior wall infarction.

The patient has nonspecific abnormalities. The clinical diagnosis was cardiomyopathy. Diffuse low voltage is seen in patients with cardiomyopathy, especially when anasarca is present. Low voltage also occurs in a variety of clinical states including pericardial effusion, pleural effusion, hypothyroidism, emphysema, diffuse myocardial disease or wasting diseases such as carcinomatosis. The S-T and T abnormalities may be due to any of the above conditions or may be due to digitalis.

Question 318. The basic rhythm is atrial fibrillation as demonstrated by absent P waves and the undulations of the baseline (f waves) best seen prior to the last beat. The first two and last beats are conducted from the atria. The duration of the QRS complexes of these beats is prolonged to 0.14 seconds. Beats #2 to 7 have a wide QRS of 0.18 seconds and are irregular. The R-R interval of these beats shortens progressively (except for beat #5) characteristic of Wenckebach periodicity. These beats are controlled by a parasystolic focus in the ventricles. Although this focus is regular, exit block is present with progressive prolongation of the time required for it to capture the ventricles (Wenckebach periodicity).

A slow ventricular parasystolic focus during atrial fibrillation may indicate digitalis toxicity.

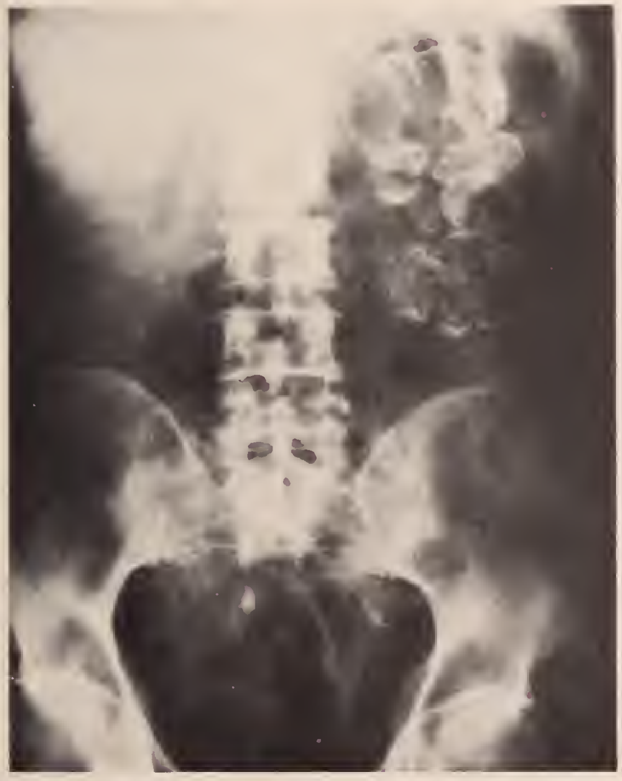
Radiologic Problem of the Month

Montefiore Hospital and Medical Center
The Bronx, New York

Editor

KAKARLA SUBBARAO, M.D.
Professor of Radiology at
Albert Einstein College of Medicine

Massive Abdominal Calcification



X-ray of a 56-year-old man complaining of left loin pain of several months duration.

Elucidation

Supine view of the abdomen without administration of contrast medium reveals massive calcification in the left lumbar area extending from the level of the body of D_{12} (the twelfth disk) to the level of the midportion of the body of L_4 (the fourth lumbar). The calcifications are curvilinear and circular with central haziness and punctate densities. Calcifications are present in the pelvic vessels consistent with patient's age. The morphology of the calcification in the left lumbar area corresponds to the dilated calyces and, thus, represents renal calcification in pyonephrosis. The common etiology for such calcific pyonephrosis is tuberculosis.

Tuberculosis of the kidney is a blood-borne infection and secondary to pulmonary, bone, or joint tuberculosis. Although the infection is generally bilateral, infection progresses in one kidney, while the lesions in the other kidney heals. Incidence of tuberculosis of the genitourinary tract is declining in all parts of the world. Increasing diagnostic methods and early attention to the symptomatology show definite decline in severity of the disease. Hence, this type of extensive calcification in tuberculous pyonephrosis is a rare presentation. The clinical symptomatology in such a case varies from mild loin pain to severe systemic symptoms such as chills, fever and loss of weight.

Primary focus of renal tuberculosis is the corticomedullary junction where tiny tubercles develop. The disease progresses with the tubercle bacilli passing into the narrow segment of the loop of Henle and produces tubercles which enlarge and undergo necrosis forming an abscess in the papilla.[1,2] This finally erodes into a minor calyx which spreads to one or more infundibula and, finally, to the pelviureteral junction. Simultaneously fibrotic reaction occurs and strictures form in the narrowed areas. When an early stricture forms at the pelviureteral junction, obstruction and caliectasis occur with eventual pyonephrosis. Simultaneously, changes in arterial branches occur resulting in stenosis and thrombus formation. The cortex thins out as a result of dilatation of calyces and ischemia resulting in a nonfunctioning kidney. Thus, "autonephrectomy" is a relatively common sequence of events in tuberculosis of the kidney with dystrophic calcification varying in extent from a few minute areas to a complete cast of the kidney. At start, calcifications are faint and punctate but eventually they may coalesce along the rims of the collecting system.

In the absence of initial pelviureteral obstruction, the size of the kidney is diminished and gradually filled with caseous material. Subsequent calcification of such a contracted kidney is termed "putty kidney".[1,2]

Radiological findings of tuberculosis of the kidney are numerous as observed on plain films of the abdomen. A small, irregularly shaped kidney due to scarring may be observed. The kidney may show localized bulge due to a caseating granuloma or localized hydronephrosis and may simulate a tumor; calcific foci may be present in the cortex or in the necrotic papilla. Calcifications may also be present in the dilated calyx and may even extend into the ureter, either intramurally or intraluminally.

In the differential diagnosis of massive calcifications, as are noted in this case, neoplasm such as hypernephroma may be considered. The calcifications in such a neoplasm should be localized and not diffuse as in this case. Occasionally, xanthogranulomatous pyelonephritis and staghorn calculus may show massive calcification, but in these two entities, the calculi take the shape of the collecting system, the calcification is denser at the center, and fades-away towards the periphery. Echinococcal cyst of the kidney may demonstrate calcifications, but the calcification is large, located at the periphery and is circular. Calcified pancreatic and mesenteric cysts are generally unilocular with the calcification at the periphery. Hence, by the location and the type of calcification, the diagnosis in this case is calcific pyonephrosis. An intravenous pyelography in such a calcific kidney demonstrates no function.

Diagnosis

Tuberculous pyonephrosis with 'autonephrectomy'

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Drug Information*

Questions and Answers

Is there a significant difference in incidence of gastrointestinal injury associated with different forms of aspirin?

The damaging effect of aspirin on the gastric mucosa has been well documented.[1] Of particular interest is whether or not buffered or enteric-coated aspirin can decrease the incidence of mucosal injury observed with regular aspirin.

Silvoso et al.[2] evaluated the incidence of mucosal injury in 82 patients with rheumatic disease who were receiving chronic aspirin therapy. Six percent of patients on enteric-coated aspirin developed mucosal damage compared to 23 percent and 31 percent respectively for the regular and buffered aspirin treated groups.

Lanza et al.[1] administered therapeutic doses of regular, buffered and enteric coated aspirin or placebo to 20 volunteers. Although the various forms of aspirin utilized produced similar serum salicylate levels, the regular and buffered aspirin caused significantly more mucosal damage than the enteric-coated form or placebo.

Hoftiezer and coworkers[3] studied nine normal volunteers receiving either regular or enteric-coated aspirin. They concluded that regular aspirin causes a greater amount of mucosal damage than does enteric-coated aspirin.

In conclusion, regular, buffered and enteric-coated aspirin produce similar salicylate levels, but the enteric-coated form causes a lower incidence of mucosal damage. Enteric-coated aspirin appears to offer an advantage over the other forms of aspirin for patients taking large doses of aspirin on a chronic basis.

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Can naloxone reverse diazepam's effects?

Naloxone (sold as Narcan) is a pure narcotic antagonist used in treating overdoses of opiates. Recently it has been suggested that naloxone was useful in reversing the coma and respiratory depression associated with an overdosage of diazepam (sold as Valium), a benzodiazepine derivative.

Several animal studies have suggested that high doses of naloxone may antagonize diazepam effects.[1,2]

Moss[3] first reported on naloxone's reversal of apnea occurring after a combined ingestion of a barbiturate, alcohol, and diazepam.

Bell[4,5] reported successful reversal of a confirmed acute diazepam intoxication in a 27-month-old child by naloxone.

Christensen et al[6] performed a double-blind, placebo-controlled study in 46 subjects to investigate naloxone's potential to reverse diazepam-induced sedation. No significant difference between naloxone and placebo was noted.

In conclusion, although isolated case reports and some animal studies suggest that naloxone may be useful in treating respiratory depression associated with overdoses of diazepam, a controlled study has not supported this observation.

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Can antibiotics reduce the effectiveness of oral contraceptives?

It has been suggested that a drug-drug interaction between oral contraceptives and some popular antibiotics may result in reduced effectiveness of the antifertility agent.[1] The mechanism suggested involves decreased reabsorption of estrogens from the gut as a result of antibiotic induced changes in intestinal flora.[2] In addition, enhanced estrogen metabolism due to microsomal enzyme induction has been demonstrated with rifampin.[3]

Reimers[4] reported that treatment with rifampin (Rimactane, Rifadin) resulted in 68 cases of menstrual irregularities and 5 cases of unplanned pregnancies among 88 women on oral contraceptives.

Dossetor[5] observed three cases of unplanned pregnancies in women receiving oral contraceptives which may have resulted from concomitant ampicillin (Penbritin, Polycillin, Principen, Amcil) administration.

Pulkkinen et al,[6,7] based on studies involving estriol plasma levels and urinary estriol excretion, suggested a possible interaction between oral contraceptives and neomycin (Mycifradin) or penicillin V (Ledercillin VK, Pfizerpen, V-Cillin, Pen-Vee-K).

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* This Question and Answer column is compiled by the International Pharmaceutic Drug Information Center (IDIC) affiliated with the Arnold and Marie Schwartz College of Pharmacy and Health Sciences of Long Island University, 81 DeKalb Avenue, Brooklyn, NY 11201. The Director is Jack M. Rosenberg, Pharm.D., Ph.D., Associate Professor Clinical Pharmacy. The Consultant is Walter A. Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College. The Center is available from Monday through Friday from 9:00 a.m. to 5:00 p.m. For quick response to your questions, call (212) 622-8989 or (212) 330-2735.

Stone[8] reported that among patients receiving oral tetracycline (Achromycin, Panmycin, Robitet, Sumycin) for acne treatment, five experienced menstrual irregularities and amenorrhea. Similar reports of possible interaction between chloramphenicol (Chloromycetin), sulfonamides, nitrofurantoin (Furadantin, Macrodantin) and oral contraceptives are in the literature.[9]

Friedman[2] indicated, based on a placebo-controlled study involving human volunteers, it was not likely that ampicillin diminished effectiveness of oral contraceptives.

In conclusion, evidence to support or dispute interaction between oral contraceptives and antibiotics is far from conclusive. However, it may be prudent to caution patients about the possibility of decreased oral contraceptive effectiveness during antibiotic therapy. This caution may be particularly advisable for patients receiving rifampin.*

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* Rifampin and all drugs are sold under the trade names listed and various other names.

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Anticlotting drug slows spread of lung cancer

A drug that prevents clotting of the blood can slow the growth and spread of cancer, says a report in the February 27 Journal of the American Medical Association.

A Veterans Administration Cooperative study tested the premise that warfarin sodium, an anticlotting drug, would modify the course of cancer. The study found that the drug doubled the survival time of individuals with one type of lung cancer, says Leo R. Zacharski, M.D., of the VA Medical Center, White River Junction, Vermont.

The warfarin sodium was added to the treatment program of drugs plus radiotherapy for 25 patients with small cell carcinoma of the lung. These individuals had a median survival time of 50 weeks. A control group of another 25 individuals with the same type of cancer who received drug and radiation therapy without the anticoagulant recorded a median survival time of 24 weeks, Dr. Zacharski said.

The survival advantage associated with warfarin administration was observed both for patients with extensive disease and for those who failed to achieve complete or partial remission, he said. The warfarin-treated group also demonstrated a significantly increased time to first evidence of disease progression.

"These results suggest that warfarin may be useful in the treatment of small cell carcinoma of the lung and also support the hypothesis that the blood coagulation mechanism may be involved in the growth and spread of cancer in man," Dr. Zacharski said.

Warfarin sodium did not cure the cancers. It served to delay their growth and spread and prolong life. Virtually all of the patients in the study were terminally ill when it began. Only two were still alive within a year after the study was concluded.

Cytotoxic Factors Specific for Endothelial Cells

*Progressive systemic sclerosis without cutaneous involvement**

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Visceral involvement in systemic sclerosis has long been recognized, but PSS (progressive systemic sclerosis) without cutaneous signs has rarely been reported.[1–4] In this report, we describe a patient with extensive fibrosis of the pulmonary, gastrointestinal, and cardiac systems, without cutaneous manifestations of systemic sclerosis. The patient's serum was found to contain a factor cytotoxic for endothelial cells previously described only in systemic sclerosis and Raynaud's phenomenon, thus supporting the diagnosis of PSS sine scleroderma.

Case report

A 71-year-old white female was admitted to Montefiore Hospital in January, 1980, for anasarca and shortness of breath. The diagnosis was congestive heart failure, and she was treated with digitalis and diuretics according to conventional regimens.

Previous medical history is significant for longstanding pulmonary disease. Pulmonary function tests in September, 1976, had revealed decreased diffusing capacity and moderate restrictive disease, without significant obstructive component. A chest x-ray film report from September, 1977, indicated bilateral lower-lobe infiltrates. In September, 1976, a dilated, atonic esophagus was noted on cardiac series. In September, 1977, esophageal motility studies revealed a normal lower esophageal sphincter pressure, with generalized decreased motility. Endoscopy performed at that time was reported as within normal limits.

In August, 1978, the patient was evaluated for syncope with a 24-hour electrocardiographic (Holter) monitor; a first-degree block with occasional Wenckebach rhythm and pauses was noted. A diagnosis of sick atrial sinus syndrome was made and a pacemaker was inserted. In September, 1977, an echocardiogram revealed decreased left ventricular compliance, an enlarged left atrium and no evidence of a pericardial effusion. In April, 1979, Swan-Ganz catheterization revealed pulmonary hypertension with normal pulmonary wedge pressures. A generalized decrease in the voltage of the QRS (ventricular) complexes of approximately 60 percent has been observed over the two years prior to admission.

Other significant laboratory determinations in the past included: negative to weakly positive-finding tests for ANA (antinuclear antibodies); a positive-finding test for rheumatoid factor at a titer of 1 : 2560; normal serum hemolytic complement and normal sedimentation rate; absent antibodies to extractable nuclear antigens (ENA); negative direct and indirect polybrene-sensitized Coombs' test findings; and normal serum thyroxine (T4) level. Serum protein electrophoresis in August, 1979, revealed hypergammaglobulinemia of a polyclonal pattern. X-ray films of the hand at that time revealed degenerative joint disease, but no soft-tissue calcification. Serum creatinine in April, 1979, was 1.5 mg. and the BUN (blood urea nitrogen) was 30 mg. per deciliter.

Review of systems on admission disclosed negative findings for rash, fever, myalgias, arthralgias, dysphagia, Raynaud's phenomenon, and weight loss. The patient denied any change in the texture or appearance of the skin on her hands or face at any time in the past. There was no history of chest pain, systemic hypertension, or diabetes.

Physical examination findings on admission revealed a grossly edematous white female in mild respiratory distress. Vital signs were within normal limits. Examination of the skin disclosed normal findings for rash, thickening, tightening, or telangiectasias. Chest examination revealed cellophane rales at the bases of both lungs. Cardiac examination revealed S_3 and S_4 gallops, a Grade II to III systolic ejection murmur at the base, and no rubs. The rest

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* This work was supported by: National Institutes of Health Multipurpose Arthritis Center Grant AM-20571; The RGK Foundation, Austin, Texas; and The Charlotte and Sidney Lifschultz Foundation, Charleston, South Carolina.

of the physical examination disclosed nothing remarkable except for 3-plus pitting edema of the legs, sacrum, and arms.

Laboratory determinations included normal serum chemistries except for a BUN of 31 mg. and a creatinine of 1.4 mg. per deciliter. Hematologic indices were also within normal limits. The urine was free of protein, red cells, or casts. Arterial blood gases on room air revealed a pH of 7.49, carbon dioxide partial pressure (pCO_2) of 27 mm. and oxygen pressure (pO_2) of 60 mm. per Hg. The ECG (electroencephalogram) showed a right axis deviation of 110 degrees, flattened T waves in II, III, L, F, and V_4 to V_6, RR waves in V1, and poor R wave progression. Chest x-ray film findings revealed cardiomegaly with both left and right ventricular enlargement, vascular redistribution, and bilateral lower-lobe reticulonodular infiltrates. Edema resolved after treatment of the congestive heart failure, but pulmonary rales persisted, and no underlying skin sclerosis was evident.

Special studies

Endothelial cytotoxicity in the patient's serum was assayed by the method described by Kahaleh, Sherer, and Leroy.[5] The serum induced a 58-percent (normal: less than 10 percent) reduction in ^{3}HTdR (tritiated thymidine) uptake by cultures of human endothelial cells, and a 40-percent release of ^{51}Cr (radioactive chromium) from the same cells. The serum did not inhibit ^{3}HTdR uptake or induce ^{51}Cr release from cultures of human fibroblasts or smooth muscle cells.

Comment

Although visceral involvement may occasionally predate cutaneous abnormalities in scleroderma,[6–10] PSS without cutaneous involvement (PSS sine scleroderma) has rarely been reported.[1–4] Our patient presented symptoms, signs, and laboratory findings typical of sclerodermatous involvement of the gastrointestinal, cardiac, and pulmonary systems without any cutaneous manifestations of scleroderma or the CRST (calcinosis, Raynaud's phenomenon, sclerodactyly, telangiectasias) syndrome. Occasional patients undergo spontaneous remission of clinically apparent sclerodermatous skin without concomitant improvement in other systemic manifestations of their disease. However, our patient denied any previous thickening or tightening of her skin. A skin biopsy, which might have shown residual histologic changes of scleroderma, was not obtained.

The hypergammaglobulinemia, high titer of rheumatoid factor, and low titer of ANA found in our patient are frequently found in patients with pulmonary fibrosis irrespective of the etiologic findings of lung disease. These immunologic findings, therefore, do not help in establishing a diagnosis of an underlying connective tissue disease.

A committee of the American Rheumatism Association has recently developed a preliminary set of clinical criteria for the diagnosis of systemic sclerosis.[11] These criteria require the presence of at least one cutaneous manifestation of the disease, such as scleroderma proximal to the metacarpophalangeal or metatarsophalangeal joints, or sclerodactyly with pitting scars of the fingertips, or loss of substance of the distal finger pad. Series of patients selected according to these diagnostic criteria would not include any patients with PSS sine scleroderma. Nevertheless, the combination of bibasilar pulmonary fibrosis, esophageal dilatation, and pulmonary hypertension seen in our patient was not found in any of 461 control patients with other connective-tissue diseases studied by the committee of the American Rheumatism Association. Since the diagnosis of scleroderma may be delayed or never be made in cases where visceral involvement, especially of a single-organ system, is the sole manifestation of the disease, the frequency of PSS sine scleroderma may in fact be higher than has been appreciated to date,[12,13] and should be considered in the diagnosis of idiopathic pulmonary fibrosis, cardiomyopathy, esophageal hypomotility, malabsorption, or unexplained renal failure with hypertension.

The detection of circulating endothelial cytotoxic activity in our patient supports the diagnosis of PSS. The activity has been found in a high proportion of patients with classical active scleroderma, and in patients with Raynaud's phenomenon.[5] There appears to be some correlation between the presence of the endothelial cytotoxic activity in these conditions, and the activity of the sclerodermatous process, suggesting that it may play a role in the pathogenesis of these diseases. Similar endothelial cytotoxic activity has not been found in healthy controls and has only rarely been found in low-titer patients with other connective-tissue disease. The demonstration of endothelial cytotoxic activity may in fact prove to be a useful diagnostic procedure in patients in whom the diagnosis of PSS is entertained, but who lack sufficient characteristic features to establish the diagnosis. Furthermore, the demonstration of this activity may allow us to diagnose PSS at an earlier stage in the disease, when therapeutic intervention holds its greatest promise.

Summary

A patient with evidence of systemic sclerosis made manifest by esophageal dilatation and hypomotility, pulmonary fibrosis, and diminished myocardial contractibility, but with no cutaneous signs of scleroderma or Raynaud's syndrome, was found to have a circulating factor cytotoxic for endothelial cells. Such factors have been described previously only in patients with the complete syndrome of systemic sclerosis or Raynaud's syndrome.

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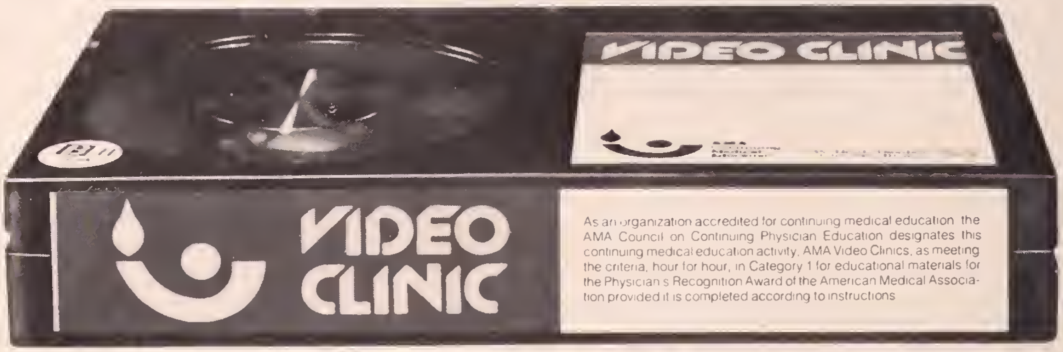

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Diphenylhydantoin-Induced Pseudolymphoma Syndrome

With severe thrombocytopenia

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Lymphadenopathic conditions may be seen in association with a variety of drugs.[1] It has been known for several years that hydantoin drugs may cause these conditions, which mimic malignant lymphoma.[2] Hyman and Sommers[3] described a syndrome of lymphadenopathic features, fever, morbilliform rash, hepatomegaly, splenomegaly and eosinophilia, as well as frequent association of joint pain and swelling which they called a "pseudolymphoma syndrome."

Hydantoin-induced lymphadenopathic conditions have been separated into four clinical histologic categories: hyperplasia, pseudolymphoma, pseudo-pseudolymphoma, and lymphoma.[4] All these categories showed varying pictures of the "pseudolymphoma syndrome" (involvement of different lymphatic stations, presence of hepatomegaly, splenomegaly, both or neither, and so forth), and with well-defined histologic pictures:

1. Hyperplasia appeared as normal lymph-node architecture with a pleomorphic cellular response or lymphadenitis in some cases. The lymphadenopathic condition regularly regressed with cessation of treatment.
2. Pseudolymphoma demonstrated alteration and effacement of nodal architecture with reticulum cell hyperplasia, often to the point of appearing frankly malignant. Prompt regression and lack of recurrence followed cessation of treatment.
3. Pseudo-pseudolymphoma showed hyperplasia or malignant changes, which also regressed after cessation of treatment. However, after a quiescent period, there was development of malignant lymphoma and subsequent death.

There is an established etiologic relationship between drug-induced thrombocytopenic purpura and the use of diphenylhydantoin (Dilantin). Patients with drug purpura may develop hemorrhagic symptoms after weeks or even years of symptom-free use of an agent.[5] None of the literature reviewed for this case presentation has ever reported thrombocytopenia associated with the "pseudolymphoma syndrome."

Case report

A 43-year-old white female was admitted to Lutheran Medical Center, Brooklyn, New York, with a chief complaint of spontaneous petechiae and ecchymoses confined for the most part to the lower extremities, but also occurring in her mouth, beginning approximately one month prior to admission. The patient did not complain of persistent fever, weight loss, or bone pain. Her pertinent past history revealed that at age nine she was in an auto accident and subsequently developed a seizure disorder for which she was placed on diphenylhydantoin, 100 mg., four times a day. Her last seizure had been 20 years prior to admission. The diphenylhydantoin was decreased to 100 mg. t.i.d (three times a day), and then to once a day. Her only other hospitalization had been for pneumonia at age 23. She had had no previous operations or transfusions, or any known allergies, and her family history proved noncontributory. She was a nonsmoker and a nondrinker. Her only medication had been diphenylhydantoin. Physical examination revealed a 43-year-old white female, moderately well built and well nourished, mildly to moderately mentally retarded, alert and cooperative, and in no acute distress. Pertinent physical findings included: petechiae of the lower lip and buccal mucosa; enlarged submandibular lymph nodes on the left side, nontender and movable; small shotty nodes in the left axilla: a markedly enlarged spleen, approximately 12 cm. below the left side of the costal margin, nontender; and diffuse petechiae on the upper extremities. Her initial CBC (complete blood count) showed 12,800 WBC (white blood cells) with 25 PMN (polymorphonuclear neutrophilic) leukocytes, 3 stab cells, 67 lymphocytes, 3 monocytes, 2 eosinophils, HB (hemoglobin) 13.2, and HCT (hematocrit) 38.8. Platelets were "very decreased" (Table I). The initial impression was drug-induced thrombocytopenia, or an acute leukemic condition. All medications were discontinued, but the patient was placed on phenobarbital, 30 mg. t.i.d. because of concern that a seizure might precipitate an acute bleeding process. One week after admission the patient's platelet count remained essentially unchanged (11,000 per cubic millimeter), and it was decided to start her on prednisone, 60 mg. orally, daily. At this time, the CBC was 22,000 WBC with 31 PMN leukocytes, 1 stab cell, 60 lymphocytes,

TABLE I. Consecutive complete blood count, differential and platelet determinations*

Date	WBC	PMN	Stab Cells	Lymph-ocytes	Mono-cytes	Eosin-ophils	HB/HCT	Platelets	Therapy
6/30/78	12,800	25	3	67	3	2	13.2/38.8	Very decreased	Discontinue present medications
7/02/78	16,600	38	2	50	2	1	14.1/42.8	11,000	...
7/05/78	...	...	...	...	...	...	...	...	Prednisone, 60 mg. daily
7/06/78	22,500	31	1	60	1	...	13.2/40.6	11,000	...
7/10/78	36,400	13	2	67	1	...	12.6/37.7	17,000	...
7/15/78	74,200	12	1	84	1	...	13.0/38.3	16,000	...
7/17/78	78,200	16	1	80	1	...	13.2/40.4	14,000	...
7/20/78	...	...	...	...	...	...	...	...	Prednisone, 100 mg. daily
7/22/78	92,400	12	...	85	1	...	13.0/39.0	44,000	...
7/26/78	91,400	15	1	82	...	...	13.6/41.0	194,000	...
7/31/78	78,000	36	10	54	...	...	12.8/39.1	100,000	Splenectomy
8/02/78	48,800	54	...	46	...	...	11.7/34.5	169,000	...
8/06/78	47,900	53	1	46	...	...	11.4/34.3	448,000	...
8/09/78	58,400	54	1	45	...	...	12.3/36.5	450,000	...

* Obtained during patient's hospital stay, with relative responses to therapy.

1 monocyte, HB 40.6, and 11,000 platelets. Bone-marrow aspiration done at this time showed a slightly hypercellular marrow with an apparently normal erythroid-myeloid ratio; megakaryocytes were normal in shape and slightly decreased in number. There were small foci of lymphoid cells and also of reticulum cells. A repeated marrow aspiration one week later showed a cellular marrow with marked increase in mature and intermediate forms of lymphocytes, and a relative decrease in erythrocytic and megakaryocytic elements. After two weeks on prednisone, 60 mg. daily, with no appreciable response, the dose was increased to 100 mg. orally, daily. Eleven days later, despite a good therapeutic response, a splenectomy was performed because the patient was becoming psychotic and losing weight even though she had been taking steroids for 26 days. Postoperatively, steroids were decreased and eventually discontinued. At the time of discharge, the patient had 450,000 platelets.

Comment

The occurrence of pseudolymphoma in patients who are taking anticonvulsant drugs like diphenylhydantoin and methylphenylethylhydantoin (Mesantoin) has been well documented. A small percentage of these patients eventually developed a frankly malignant lymphoma or Hodgkin's disease.[6] It has been suggested by these authors that these drugs have the capability of causing chronic antigenic stimulation with proliferation of the reticuloendothelial system, and, at the same time, probably interefere with the immune response, thus inducing neoplastic transformation.[6]

The characteristic manifestations of this condition are usually rash, fever, enlarged lymph nodes (usually generalized), and hepatosplenomegaly with leukocytosis or leukopenia and lymphocytosis; this usually reverts to normal one to two weeks after discontinuation of the drugs.[4] This case showed severe thrombocytopenia with hemorrhagic petechiae over the body, small shotty cervical nodes in the axilla, and splenomegaly. Diphenylhydantoin was discontinued for one week without any improvement. She was then started on 60 mg. prednisone for two weeks, at which time there was disappearance of lymphadenopathy, but thrombocytopenia persisted. There also developed marked leukocytosis to 92,400 WBC, with 84 percent mature lymphocytes mimicking chronic lymphocytic leukemia. The steroids were increased to 100 mg. However, the patient developed psychosis and weight loss and a splenectomy was performed. The spleen was enlarged (290 Gm.) and a microscopic examination showed diffuse infiltration of well-differentiated lymphocytes in sinusoids. The lymphoid follicles were not enlarged.

A week after splenectomy there was a remarkable increase in the platelet count. A gradual normalization of leukocytosis, lymphocytosis, and platelets occurred two months after splenectomy. After two and one-half years of follow-up, the patient is hematologically asymptomatic.

This is an interesting case of pseudolymphoma with severe thrombocytopenia, probably on the basis of immune complex disease secondary to diphenylhydantoin, with splenomegaly and hypersplenism.

Summary

Lymphadenopathy has been associated with, and/or induced by, a number of drugs, among which are hydantoin compounds. Hydantoin-induced lymphadenopathy may cause a so-called "pseudolymphoma syndrome" composed of distinct clinical histologic categories. The etiologic relationship between the use of diphenylhydantoin (Dilantin) and other drug-induced thrombocytopenic purpura is well-known.

This is a case of a patient showing an association never before reported in any of the literature encountered in our studies for this paper.

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Emergency oxygen kits

The Food and Drug Administration is advising purchasers of 5,000 Green Cross solid-state, emergency oxygen kits that the units may fail to deliver needed oxygen and thus may pose a danger to patients. FDA has sent letters to nearly 500 individuals, retailers, and distributors advising them to cease use and sale of the oxygen kits and destroy any they have.

The kits were manufactured by Green Cross Solid State Oxygen, Inc., of Dania, Florida. Since the company is out of business and unable to conduct a recall, FDA itself notified purchasers about potentially harmful deficiencies in the kits. Normally the manufacturers would conduct the notification.

An FDA inspection of the firm revealed that the kits failed to deliver an effective flow rate—six liters of oxygen per minute for 15 minutes—as claimed on their labels. By failing to supply sufficient oxygen to emergency patients such as heart attack victims, the kits could endanger their lives, FDA said. Agency tests also revealed that the flow rate may decrease as a unit gets older.

When the Florida firm went bankrupt, Green Cross of Canada, Ltd., purchased its assets. The Canadian firm subsequently destroyed more than 200 emergency oxygen kits under FDA supervision. An additional 178 kits were seized by FDA from a Florida insurance company who received the kits as collateral for a loan. Many of the approximately 5,000 units distributed before the bankruptcy proceedings remain in purchasers' hands, FDA said.

FDA has learned of three instances in which the solid state oxygen units failed to operate. Two units were being used in emergency situations, but because other sources of oxygen were available, no deaths or injuries occurred.

No other firms producing solid state oxygen units are currently in business. The FDA action does not affect emergency oxygen units consisting of pressurized gas cylinders. Several brands of this type of emergency oxygen unit are currently available.

Fatal Pneumonia

Emergence of an amikacin sulfate-resistant strain of Escherichia coli

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Amikacin sulfate is an aminoglycoside antibiotic active against many gram-negative organisms. Broader spectrum combined with reliable serum levels after standard dosage without additional toxicity is a persuasive factor in choosing amikacin sulfate over either gentamicin sulfate or tobramycin sulfate. However, we report the case history of a patient who, while receiving amikacin sulfate, developed a fatal pneumonia and bacteremia due to a strain of *Escherichia coli* resistant to this antibiotic. A strategy for the use of aminoglycosides is proposed.

Case report

A 56-year-old man was admitted with acute myelomonocytic leukemia, initially diagnosed a year earlier. His temperature was 37.8° C. orally. The perianal region was erythematous, indurated, and tender. Laboratory values demonstrated a white blood cell-count of 89,000 per cubic millimeter, with 44 percent blasts.

The patient was begun on clindamycin phosphate and tobramycin sulfate for the perirectal infection, received induction chemotherapy, and underwent intermittent leukophoresis. During the fourth hospital week he developed peritoneal signs and a cystic abdominal mass; 10 ml. of serosanguinous fluid aspirated from the lesion grew *Candida albicans*.

Three days later the patient developed pneumonia. Amikacin sulfate, 15 mg. per kilogram per day, was empirically substituted for tobramycin sulfate and amphotericin B was initiated. Over the next several weeks the patient's condition stabilized, but, although he became profoundly neutropenic, the leukemia proved unresponsive to cytotoxic agents.

On the sixty-first hospital day, 31 days after beginning amphotericin B and amikacin sulfate, he developed rigors, hypotension, and a new pulmonary infiltrate. Multiple sets of blood cultures grew *E. coli* resistant to aminoglycosides (MIC† for gentamicin sulfate: = 32, for tobramycin sulfate: = 32, for amikacin sulfate: = 64 micrograms per milliliter), carbenicillin disodium, ampicillin, chloramphenicol, and colistin sulfate. The patient was begun on cefamandole nafate (MIC = 4 micrograms per milliliter), and trimethoprim-sulfamethoxazole (sensitive by disk), but he failed to improve, and expired on the sixty-third hospital day.

Comment

Since amikacin sulfate was introduced in 1976, there has been no large-scale emergence of resistance. However, the potential for selection of such organisms is real as evidenced by this and other reports.[1-4] Emergence of resistance can occur through a change in susceptibility of a previously sensitive isolate,[2,4] or presumably by overgrowth of an already resistant organism. Long treatment courses are more liable to lead to superinfection with resistant organisms.[3] Resistance may be R-factor mediated, which implies risk for large outbreaks, such as one that occurred recently in an intensive care nursery, resulting in three deaths.[1,5]

The occurrence of amikacin sulfate-resistant organisms, their potential for causing serious or even lethal infection, and their unpredictable susceptibility pattern highlight the importance of control measures designed to slow the rate of emergence and spread of these organisms. Programs emphasizing barrier-isolation precautions to prevent cross infection and a reduction in aminoglycoside use have shown success.[2]

We urge a conservative approach to aminoglycoside prescription and suggest the following strategy for patients with serious infections, attributable to gram-negative enteric species, requiring empiric therapy with an aminoglycoside antibiotic:

1. Patients, with community-acquired infections or with nosocomial infections in hospitals with no significant aminoglycoside resistance, should receive either gentamicin sulfate or tobramycin sulfate. Once the susceptibility of the pathogen is known, a less toxic agent from another class of antimicrobials should be substituted if possible. Infections in patients who have had a recent hospitalization initially should be regarded as due to organisms with the sensitivity profile found in the former hospital.[2]

---

* At present, New York Medical College, Westchester Medical Center, Valhalla, New York.

† Minimal inhibitory concentration.

2. In hospitals with significant gentamicin-tobramycin resistance, amikacin should be the aminoglycoside of choice. If susceptibility of the pathogen permits, gentamicin, tobramycin or preferably a member of another class of antimicrobials should be substituted for amikacin.

3. Appropriate serum concentration of the aminoglycoside used should be insured by obtaining frequent determinations of blood level.

Conclusion

Restriction of the use of aminoglycosides in general, and amikacin sulfate in particular, to these indications should minimize the potential for development of nosocomial infections due to amikacin sulfate-resistant organisms.

Summary

Infections due to amikacin sulfate-resistant organisms pose a serious concern for physicians in the 1980s. A patient who developed a fatal pneumonia with bacteremia due to an *E. coli* resistant to amikacin sulfate has been described. To minimize the emergence of such organisms, we suggest that amikacin sulfate be initiated only for serious nosocomial infections in hospitals where there is a significant prevalence of gram-negative organisms resistant to gentamicin sulfate and tobramycin sulfate, and continued only if resistance to the other aminoglycosides and to safer antimicrobials from another class is confirmed.

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Training fork and spoon sets warning

The Food and Drug Administration warned recently that metal may flake off some training fork and spoon sets imported from Taiwan and sold in the United States for babies. Infants and young children who swallow the flakes may become nauseated.

Use of any flaking utensils should be discontinued at once, FDA said. The distributor, Cribmates, Inc., of Long Island City, N.Y., is voluntarily recalling the product.

FDA analyses revealed that the flaking and peeling metal contained levels of cadmium sufficiently high to pose a moderate to severe health hazard, particularly since infants and young children chew and suck on eating utensils. Children also tend to absorb and retain cadmium and other heavy metals such as lead at higher levels than adults.

The utensils were made by the Soung Fea Enterprises Co. of Taipei, Taiwan. They have been sold mounted on a card with a plastic covering and are labeled "Training Fork and Spoon, A Perfect Size for Baby's Little Hands."

The firm has distributed nearly 29,000 sets nationwide since August, 1979. Consumers who think they may have this product should return it to the place of purchase.

The recall is based on a consumer complaint in Buffalo, N.Y. FDA investigators obtained additional utensil sets and confirmed that metal flaked from the training forks and spoons.

FDA can regulate cooking and eating utensils as food additives under the Federal Food, Drug and Cosmetic Act, when unsafe chemicals migrate into foods at unacceptable levels. FDA also notified the Consumer Product Safety Commission because it has in most instances primary authority to insure the safety of household products.

Cadmium is found naturally at low levels in food and water. It accumulates in the liver and kidneys. Larger amounts swallowed over some years can damage the kidneys. It is widely used commercially in electroplating and soldering, and as pigments.

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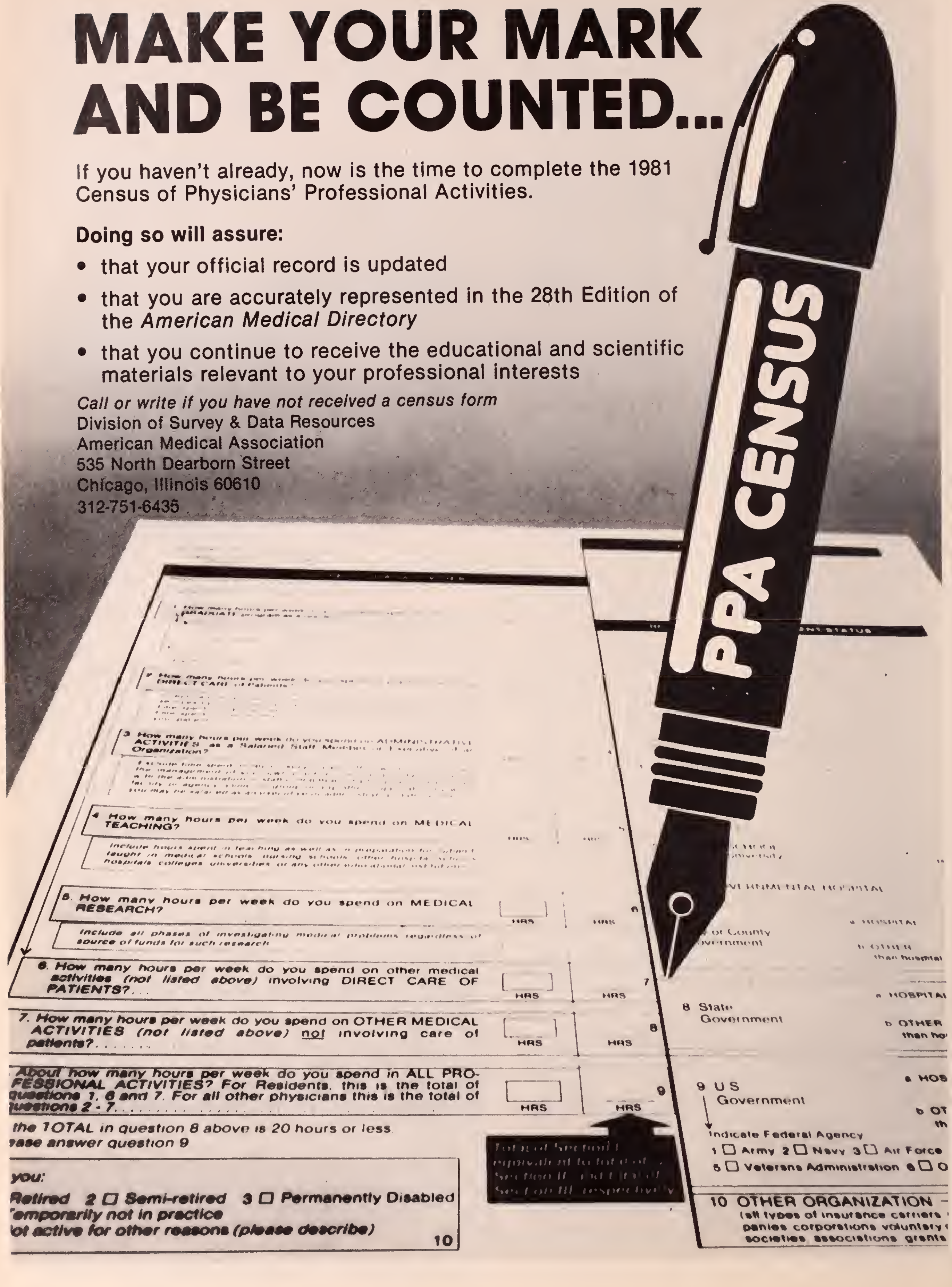

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Mycobacterium marinum Tenosynovitis in a Long Island Fisherman

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The purpose of this report is to alert physicians to the occurrence of a seldom appreciated infection in man caused by *Mycobacterium marinum*, an atypical mycobacterium found in several species of fish living in Long Island Sound. Lesions caused by *M. marinum* are usually of three types: 1) a self-limited verrucous lesion; 2) an ulcerative skin lesion which may or may not lead to granuloma formation in the subcutaneous tissue; and 3) a deep-seated or a disseminated variety involving lymphatics, tenosynovium, joint space, bursa, or bone. *M. marinum* infection should be considered whenever one of these lesions exists and there is an appropriate clinical exposure. Definitive diagnosis is often difficult to establish and requires tissue for culture and histopathology. A presumptive clinical diagnosis can be established and appropriate therapy instituted while awaiting culture and pathology results.

Case report

A 53-year-old right-handed white man who worked as an advertising manager injured his left middle finger at the distal flexor crease with the dorsal fin of a bluefish (*Pomatomus saltatrix*) caught in Long Island Sound. One day later, the patient noticed pain, redness, and some swelling in the injured finger. He attempted to explore this area himself with a pin. Subsequently, he developed a cellulitis that was treated with oral penicillin for seven days. One month later a thickened boggy tenosynovitis developed that was located around the site of the initial wound. The inflammation spread to encompass the dorsal aspects of the PIP (proximal interphalangeal) and the MCP (metacarpophalangeal) joints. The patient sought medical advice and was placed on ibuprofen (Motrin) for two months during which time he experienced some relief of pain. However, there was no reduction of the edema or remission of the tenosynovitis. At this point, the patient was referred to our Rheumatology Service for evaluation. Past medical history revealed surgical therapy for tuberculosis of the thoracic spine at the age of eight months with no further sequellae. Previous skin testing with intermediate-strength PPD (purified protein derivative) gave positive results.

On examination, there was red, doughy, thickened tenosynovium around the MCP joint of the left long finger associated with a 3.0 by 1.5 cm. firm mass (Fig. 1). Although this entire digit was swollen, all of the joints had a full range of passive motion. However, on active motion there was a 25 percent decrease in the range of these joints. The entire finger was edematous and tender to palpation. There was no evidence of ulceration, lymphangitis, lymphadenopathy, nor any noted neurologic deficit. The brachial, radial, and ulnar pulses were normal. Examination of all the other joints gave normal results. There was no uveitis. Remainder of the physical examination gave normal findings with the exception of a scar overlying the third through seventh thoracic vertebrae. Laboratory results indicated normal hematocrit, hemoglobin, differential white blood cell count, complete blood count, erythrocyte sedimentation rate, and uric acid level. Test results for rheumatoid factor and venereal disease (VDRL) were negative. Urinalysis gave normal results. Chest roentgenograms were normal except for evidence of the previous spinal fusion. Roentgenograms of left hand displayed only soft-tissue swelling of the involved finger without evidence for periosteal or bony disease.

Surgical exploration of the involved area was performed in the operating room. A large 1.0 by 2.0 by 0.5 cm. orange-yellow noncaseating granulomatous mass with poorly defined borders was removed. This mass was adherent to the subcutaneous tissue, the capsule of the MCP joint, the periosteum of the proximal phalanx of the long finger, and the extensor digitorum comminus tendon. Granulomatous tissue

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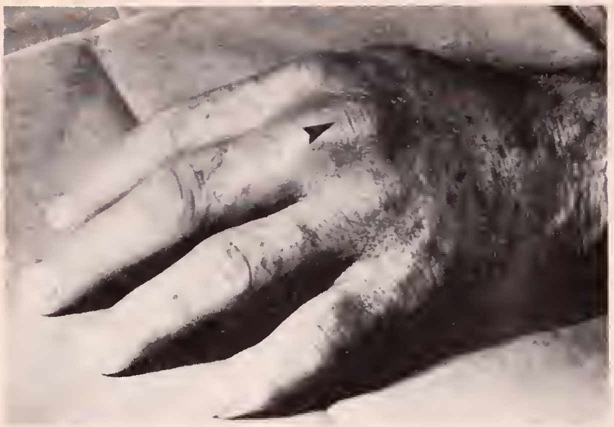

FIGURE 1. Chronic tenosynovitis overlying metacarpophalangeal joint of left long finger. Arrow points to firm mass removed at surgery.

was noticed to extend distally to the PIP joint but did not violate any joint capsule.

Microscopic sections prepared with hematoxylin and eosin stain revealed numerous epitheloid granulomas with Langhans' giant cells (Fig. 2). There was no evidence of crystals, microorganisms, or foreign material. Results of special staining of the tissue with Ziehl-Neelsen, methenamine silver, and fluorochrome were unremarkable. Cultures obtained from specimens yielded no growth when cultured for aerobic, anaerobic, and fungal microorganisms. After 10 weeks of incubation on Löwenstein-Jensen media at 21°C., smooth orange colonies of acid-fast mycobacteria appeared. When these were cultured in the dark the colonies contained no pigment. Exposure to light resulted in reappearance of the orange pigmentation, thereby establishing the identity of this mycobacterium as a Runyon Group I photochromogen. The differentiation of *M. marinum* from *M. kansasii* was made on the basis of several biochemical and cultural characteristics including nitrate reduction and pyrazinamidase tests.

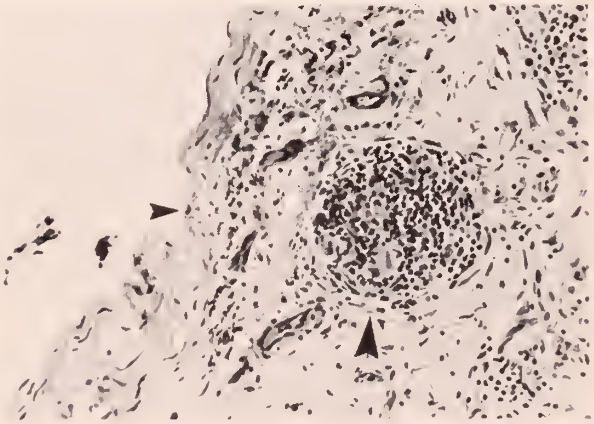

FIGURE 2. Granuloma adjacent to tendon: mass seen in Figure 1. Large arrow points to epithelioid granuloma with Langhans' giant cells. Small arrow points to part of tendon from extensor digitorum comminus which was adherent to this granuloma (hematoxylin and eosin stain, original magnification ×290).

The patient was placed on 2 Gm. oral tetracycline hydrochloride per day for four months. A four-month follow-up showed the wound to be healed completely. There was no evidence of tenderness or recurrence of the mass, and patient had a full range of active motion of all joints of the involved finger.

Comment

M. marinum was first described in 1926 as a pathogen of salt water fish by Aronson[1] and was subsequently shown to be an atypical mycobacterium of the Runyon Group I photochromogen class along with *M. kansasii*. Infections in man due to atypical piscine mycobacteria are a recognized problem. In 1954, Linell and Norden[2] identified the etiologic agent of their epidemic "swimming pool granuloma" as *M. balnei*. Later, Swift and Cohen[3] identified this same mycobacterium as the cause of "fish tank granuloma." Subsequent work has demonstrated taxonomical identity of *M. marinum*, *M. balnei*, *M. piscium*, and *M. platypoecilus*.[4]

It is now recognized that swimming and fishing in marine waters off the continental United States can result in a *M. marinum* infection. However, there has been no report in the literature of such an infection in man from direct contact with fish or salt water on the Atlantic seaboard north of the Chesapeake Bay. Despite this, it is known that many salt water game fish found in waters off Long Island are infected with *M. marinum*.[5,6]

In man, *M. marinum* usually causes cutaneous lesions at the site of injury, manifested by verrucous nodules, ulcerations, or a sporotrichoid-like lymphangitis. Occasionally skin infections have spread to distant integumentary sites.[7] Primary buccal mucosal lesions have also been described.[8] Zettergren and Zetterberg[9] suggested that cutaneous infection could involve deeper underlying tissues such as a bursa. Most commonly, deep-tissue involvement is the result of direct inoculation at the portal of entry leading to bursitis, tenosynovitis, osteomyelitis, and carpal tunnel syndrome.[10-14] Gunther and colleagues[15] found *M. marinum* to be the most common atypical mycobacterial infection of the deep structures of the hand. Tenosynovitis is the most frequent finding followed by carpal tunnel syndrome. *M. marinum* does not seem to have a predilection for patients who have an underlying systemic disease or an immunosuppressed state.

An etiologic diagnosis of *M. marinum* infection requires isolation and identification of the bacterium. However, several difficulties plague this type of diagnosis and have led many authorities to make the diagnosis on clinical, epidemiologic, and pathohistologic data, that is, granuloma in the absence of other probable or demonstrable cause.[16,17] Our review of 600 cases in the literature has revealed that less than 10 percent of biopsy or surgical specimens are positive for acid-fast bacilli with appropriate stains. Of the biopsy specimens in which there was no stainable acid-fast bacilli, some authors cultured the organism in one half of these specimens while others cultured it in 5 percent of these specimens.[17-20]

M. marinum grows optimally on Löwenstein-Jensen medium incubated at temperatures less than 35 to 37°C.[21] Treatment of the specimen with alkali will prevent growth. Injection of biopsy material into footpads of mice may result in a higher recovery rate compared to culture on media.[22] Distinction between *M. marinum*, *M. kansasii*, and *M. tuberculosis* infections can be made by the metabolic and biochemical profiles of the respective organisms.[4,23,24] Intradermal skin testing with various PPD antigens for the purpose of identifying the specific mycobacterial agent has been unrewarding.[25,26]

The differential diagnosis of *M. marinum* infection may vary depending on the presence of subcutaneous involvement. For superficial cutaneous lesions, one should consider *M. tuberculosis* and other atypical mycobacterial infections, fungal agents, spirochetal and leishmanial agents, bacterial diseases as well as neoplasms, sarcoid, drug, and foreign body reactions.[2,21,27-30] For inflammation of deeper tissues, most of the above microbial and parasitic agents should be considered as well as gouty and rheumatoid arthritis, sarcoid, neoplasms, and foreign bodies.[14,15,31-33]

Spontaneous healing of superficial skin lesions has occurred in 80 percent of reported cases, although some lesions have lasted for as long as 45 years.[34,35] However, deep-seated infections will not spontaneously resolve and require antibiotic therapy. Surgery is indicated when diagnosis is uncertain, when an adequate trial of antibiotic therapy fails to resolve the lesion, when eradication of deep lesion is necessary, or when reduction in size of the granulomatous mass is desirable.[14,15,36-38]

It has recently become evident that antibiotics of the tetracycline class (tetracycline and minocycline hydrochloride) are effective in treatment of *M. marinum* infections, although no double-blinded control studies have been performed.[39,40] It remains unclear whether the efficacy of the tetracycline class of antibiotics is due to either an antimicrobial mechanism or an anti-inflammatory one.[41-43] In adults antibiotic therapy consists of a trial of 2 Gm. per day of tetracycline or 200 mg. per day of minocycline for two to four months. In children under age 12, tetracycline should not be used. Trimethoprim-sulfamethoxazole (Bactrim, Septra) therapy, two tablets daily for three to six months, has been reported to be successful.[17,44] However, antibiotic failure on this regimen has been reported.[45] There are no reported failures with tetracycline therapy, although in vitro sensitivity testing to tetracycline may reveal *M. marinum* to be resistant.[43] Neither tetracycline nor trimethoprim-sulfamethoxazole therapy has been subjected to controlled studies. Trimethoprim-sulfamethoxazole may be used in children.

Combination antibiotic therapy with any of the antituberculous drugs (isoniazid, para-aminosalicylic acid, cycloserine, ethionamide, rifampin, aminoglycosides) is empirical, although certain guidelines have emerged. Linell and Norden[2] were the first of several authors to point out the resistance of *M. marinum* to isoniazid and para-aminosalicylic acid with variable resistance to streptomycin. In our review of literature, it is clear that *M. marinum* resistance to these drugs is highly variable, while the organism appears to be sensitive to ethambutol, rifampin, cycloserine, and ethionamide as noted by several authors.[12-15,22,27,28,46-48] Combination therapy antituberculous drugs should consist of at least ethambutol (10 to 25 mg. per kilogram per day) and rifampin (7 mg. per kilogram per day) for a period of time lasting from six weeks to several months. Cycloserine and ethionamide should be considered as additional or alternative agents.

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Pregnancy-Induced Reversible Visual Field Changes in Primary Empty Sella Syndrome

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With increasing awareness of the frequency of primary empty sella syndrome, evaluation of endocrine function of the distorted remnant of the anterior pituitary not infrequently indicates significant endocrine defects.[1–5] Unlike the secondary empty sella syndrome in which visual field defects are not unusual and can be directly attributed to a specific lesion or its treatment, the defects are seen only rarely in the primary empty sella syndrome.[4–7] The subject of this report had primary hypothyroidism, primary empty sella syndrome, and, during her third pregnancy, significant visual field defects which rapidly and completely disappeared following an abortion.

Case report

In January, 1972, a twenty-year-old black female college student appeared with a three-year history of fatigue. She was obviously hypothyroid with low-pitched voice, cold intolerance, dryness of the skin, fragility of the hair, pasty complexion, bradycardia of 60 per minute, and amenorrhea for seven months. Her ID card picture revealed a normal facies in September, 1969.

Serum thyroxine level was 0.8 micrograms per deciliter. Radioiodide studies revealed a 24-hour uptake of 6 percent. Following 10 units of thyroid-stimulating hormone daily for four days the 24-hour uptake was only 3.7 percent, thus establishing the diagnosis of primary hypothyroidism. An x-ray film of the skull taken because of headaches disclosed ballooning of the sella turcica. No destruction of bone was noted. Visual fields, a radionuclide brain scan, and echoencephalogram findings were all normal. An electroencephalogram revealed a diffusely abnormal pattern compatible with hypothyroidism. Because of lightheadedness and postural hypotension, a 48-hour fast was performed which the patient tolerated quite well. Glucose levels remained normal. Cortisol values of 19 and 35 micrograms per deciliter were obtained early and late in the fast, respectively. Growth hormone also rose from 2 to 12 nanograms per deciliter.

Administration of exogenous thyroid hormone gradually cleared all symptoms and normal menses returned. In July, 1973, she had a normal spontaneous delivery of a normal female infant. In November, 1975, an abortion was performed during the first trimester of pregnancy. In November, 1976, she appeared at another hospital for an elective abortion. She was approximately 18 weeks pregnant and euthyroid. She complained of headache and fainting. An x-ray film once again disclosed apparent enlargement of the sella turcica without bone destruc-

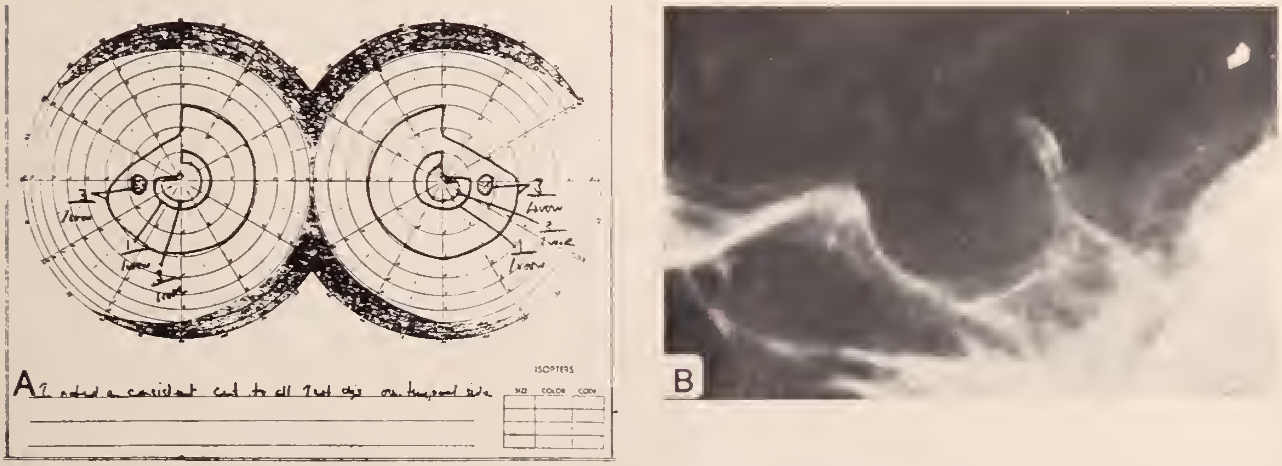

FIGURE 1. (A) Bitemporal quadrantanopsia was present when patient was 18 weeks pregnant. (B) Pneumoencephalography demonstrated a considerable amount of air in sella turcica. Flattened pituitary is located along floor and against dorsum sellae.

tion. However, visual field examination on this occasion revealed significant superior bitemporal quadrantanopsia (Fig. 1A). Pneumoencephalography revealed considerable air in the sella turcica (Fig. 1B). Profile of anterior pituitary endocrine function disclosed a normal response of the hypothalamic-pituitary-adrenal axis to 11 beta-hydroxylation inhibition (metyrapone study). When thyroxine was temporarily discontinued, and serum thyroxine had fallen to 1.0 microgram per deciliter, serum thyrotropin was appropriately elevated (greater than 100 micro I.U. per deciliter). Levodopa did not stimulate any growth hormone response. Serum prolactin, which had been 33 nanograms per milliliter before the abortion, was now a normal 3.4 nanograms per milliliter.

Following termination of the pregnancy, visual fields returned to normal within two months and remained normal (Fig. 2). At no time did the patient ever have any symptoms referable to vision. A tubal ligation was performed in October, 1977.

Comment

The patient had an apparently enlarged sella turcica when hypothyroidism was first noted in 1972. Since there was no bone destruction, visual field defects, neurologic signs or symptoms, and no indication of a secretory tumor, the increased size of the sella was attributed to hyperplasia of the pituitary thyrotrophs, with or without tumor, as may be seen in primary hypothyroidism.[8–11] With replacement therapy and a return of the euthyroid state, the patient's menses were again established and she became pregnant three times, leading to a normal spontaneous delivery, a first trimester abortion, and a second trimester abortion, during which the patient was euthyroid and found to have significant bitemporal visual field defects. Pneumoencephalography established the diagnosis of primary empty sella syndrome. Hyperplastic thyrotrophs during hypothyroidism with subsequent involution with the administration of thyroxine may have been causative in the pathogenesis of the empty sella syndrome in this subject.

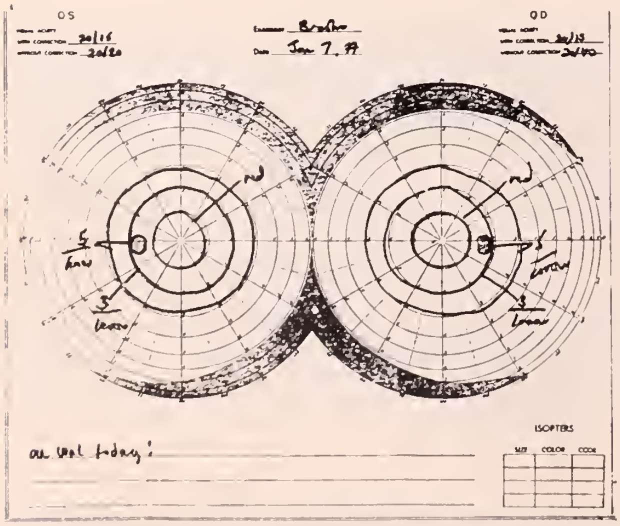

FIGURE 2. Visual fields have returned to normal 2 months after termination of pregnancy.

Not only does the anterior pituitary become significantly enlarged during pregnancy,[12] but severe and very disconcerting hemianopsia may also occur.[13] Fortunately, this appears to be reversible. The incidence of visual field defects in normal pregnancy is unknown. When a tumor is known to be present during pregnancy, emergency hypophysectomy may be necessary to preserve vision.[14] Lamberts et al.[15] described transient bitemporal hemianopsia in a patient following successful treatment of infertility with bromocriptine mesylate.

Because visual field compromise depends on placement of the optic chiasm, bitemporal defects are most frequently seen but central scotomata may also occur when the chiasm is situated anterior to the sella turcica.[16] Coexistence of a pituitary tumor and the primary empty sella syndrome with visual field defects, as well as primary hypothyroidism and visual field defects, have been reported.[5] Buckman et al.[4] report visual field defects in a subject with primary empty sella syndrome. However, reversible visual field defects have not been previously noted in a pregnant subject with primary empty sella syndrome. Since reversible changes have been noted in normal pregnancy,[13] the present situation may simply be coincidental.

Once thought to be uncommon, the primary empty sella syndrome has been reported in 5.5 to 23.5 percent of all autopsies.[5] Computerized axial tomography may now largely eliminate the need for painful and invasive pneumoencephalography to demonstrate an empty sella syndrome or to rule out a pituitary tumor.

When the empty sella syndrome was initially described, the expected incidence of deficiency of anterior pituitary hormones was expected to be very high if not 100 percent. Subsequent studies have revealed that some subjects with primary empty sella syndrome did not have any endocrinopathy. After reviewing 72 cases, Neelon, Goree and Lebovitz[3] concluded that "abnormalities of pituitary function occur but are relatively uncommon and subtle." This statement hardly follows their data which demonstrate that 27 subjects (37 percent) had an assortment of endocrinopathies such as partial or complete hypopituitarism in 11 subjects (15 percent), acromegaly in 3 subjects (4 percent), and other endocrine problems such as primary hypogonadism and primary hypothyroidism in 13 subjects (18 percent). A significant percent of endocrinopathies in the primary empty sella syndrome have also been reported by other authors.[4,5,12] Since endocrinopathies obviously occur far more commonly in subjects with primary empty sella syndrome than in the general population, the statement that they are "uncommon and subtle" is misleading.

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Peptic Ulcer Disease in Children

Aspirin induced

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The association of the use of aspirin with gastrointestinal bleeding and gastric ulcer disease in adults has been well recognized.[1-3] Severe gastrointestinal bleeding following analgesic doses of aspirin in normal children has also been observed.[4,5] Cox and Ament[6] reported eight children with peptic ulcer disease who had gastrointestinal bleeding following aspirin ingestion. It is unclear whether these reported patients had another underlying precipitating factor. We recently observed two previously healthy children who became critically ill as a result of gastrointestinal bleeding following short term aspirin therapy. In both cases, endoscopic examination during the bleeding episode provided the diagnosis of peptic ulcer disease.

Case report

Case 1. An 11-month-old male was admitted to the pediatric gastroenterology service for hematemesis and melena. He had been given 60 mg. of aspirin daily for five days for teething. One day prior to admission he developed tar-like stool. On the morning of admission he had three episodes of vomiting bright red blood. The antecedent history revealed no ingestion of other medication, no prior febrile disease, and normal growth and development.

On admission, his vital signs revealed blood pressure of 80/50 mm. Hg, pulse 126 beats per minute, weight 18 pounds, and length 30 inches; he was pale. Findings on emergency panendoscopic examination, six hours post admission, revealed an ulcer crater in the prepyloric region with minimal bleeding (Fig. 1). Laboratory data revealed: hemoglobin 7 Gm. per 100 ml., white blood cells 9,800 per cubic millimeter, with 45 percent neutrophils, and 55 percent lymphocytes, platelets 340,000 per cubic millimeter, prothrombin time of 13 sec. with control of 14 sec., partial thromboplastic time of 28 sec. with control of 27 sec., serum glutamic pyruvic transaminase 21 units per liter, serum glutamic oxaloacetic transaminase 17 units per liter, total bilirubin 0.3 mg per 100 ml., and alkaline phosphatase 150 units per liter. The serum gastrin level was 160 pcg. (picograms) per milliliter. A secretin stimulation test with 2 units per kilogram intravenously of ®Bootes secretin revealed the following time sequence of picograms per milliliter: at 0 minutes, 140; 20 minutes, 150; and 40 minutes, 140. A blood transfusion was given to raise the hemoglobin to 11 Gm per 100 ml. The patient recovered and has remained asymptomatic for the past year without treatment. Repeated endoscopic examination six months after discharge revealed complete healing of the ulcer.

Case 2. A two-year-old boy was admitted to the hospital because of three bouts of hematemesis on the day prior to admission. He had received 120 mg. of aspirin daily for seven days for teething, prior to the onset of hematemesis.

During hospitalization elsewhere at age 17 months, he developed tar-like stools and hematemesis subsequent to ingestion of 60 mg. of aspirin twice for five days. A hemoglobin drop from 11 to 5.1 Gm. per 100 ml. was observed. Results of a barium enema test, upper gastrointestinal series, and technetium per-

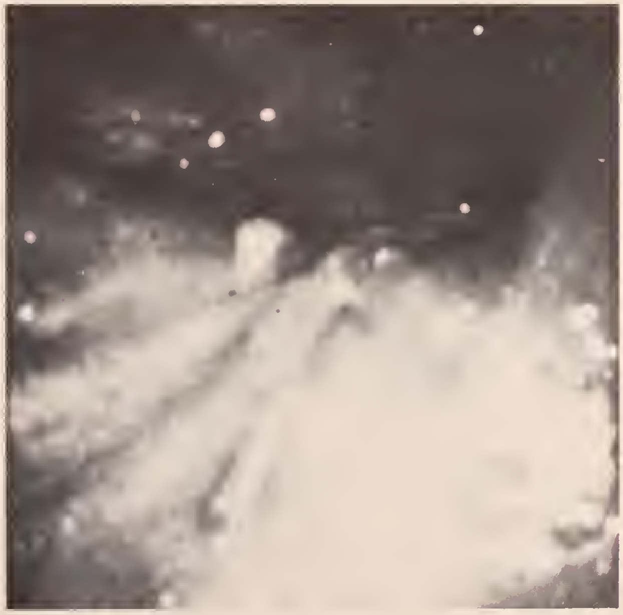

FIGURE 1. Endoscopic picture of ulcer crater in prepyloric region in an 11-month-old male.

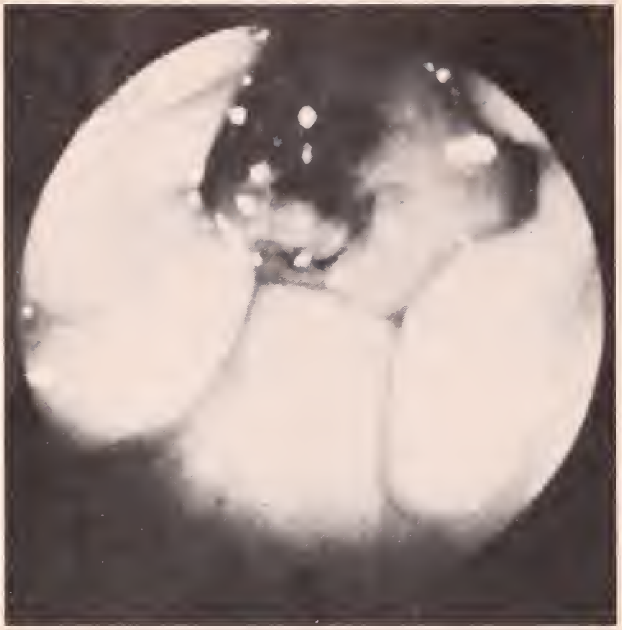

FIGURE 2. Endoscopic picture demonstrates postbulbar ulcer niche in a two-year-old male.

technitate scan were normal; findings on bleeding and clotting factor tests were normal; a D-Xylose absorption test result was normal; and a jejunal biopsy showed a normal mucosal architecture. The patient was diagnosed to have cow's milk hypersensitivity. He was given a soy protein formula (Isomil) and a milk free diet, and remained asymptomatic until this admission.

On admission, his vital signs revealed blood pressure 88/50 mm. Hg, pulse 132 beats per minute, weight 27 pounds, and height 35 inches. A panendoscopic examination performed four hours after admission showed a postbulbar ulcer with minimal bleeding (Fig. 2). Laboratory data revealed hemoglobin 6 Gm. per 100 ml., white blood cells 12,000 per cubic millimeter with 62 percent neutrophils and 38 percent lymphocytes, platelet count of 380,000 per cubic millimeter, prothrombin time of 12 sec. with a control of 12 sec., partial thromboplastin time of 24 sec. with a control of 25 sec., serum glutamic pyruvic transaminase 16 units per liter, serum glutamic oxaloacetic transaminase 24 units per liter, total bilirubin 0.2 mg. per 100 ml. and alkaline phosphatase 160 units per liter. The serum gastrin level was 148 pcg. per milliliter. A secretin stimulation test with 2 units per kilogram intravenously of ®Bootes secretin revealed the following time sequence of picograms per milliliter: 0 minutes, 150; 20 minutes, 160; and 40 minutes, 140. He received antacids for three months after discharge. Repeated endoscopic examinations six months after discharge revealed complete healing of the postbulbar ulcer. Patient was again placed on cow's milk without developing symptoms.

Comment

Gastrointestinal bleeding induced by aspirin has been observed in adults as well as in children.[3,4,5] The mechanism by which aspirin induces bleeding may be an increase in the back diffusion of hydrogen ion into the mucosa, resulting in ulceration.[7,8] Another mechanism for gastrointestinal bleeding might be the inhibition of irreversible clumping of platelets caused by aspirin.[9] In the two significant reports by Marshall and Kuzemko[5] and Bergman, Philippidis and Naiman[4] in which aspirin ingestion induced acute gastrointestinal bleeding in children, endoscopic examinations were not performed. Of the 12 patients described by Marshall and Kuzemko[5], four were at or below two years of age, and nine were at or below six years of age. Two of the three patients described by Bergman, Philippidis and Naiman[4] were below three years of age.

Cox and Ament[6] reported endoscopically proved bleeding ulcers in children with prior aspirin ingestion, but a thorough description of these cases is not given. In the two children reported here, both below the age of two years, there were no other precipitating factors. Acute gastrointestinal bleeding occurred following ingestion of aspirin. One child had a prior episode of gastrointestinal bleeding following the use of aspirin. The gastrointestinal bleeding was proved by endoscopic examination to be peptic ulcer disease. In contrast to the previous belief that aspirin caused gastric ulcers only,[10,11] a recent study by Lanza, Royer, and Nelson[12] showed that aspirin may damage the mucosa of the duodenum. Indeed, one of our patients had a duodenal ulcer.

The role of aspirin as an etiologic factor of peptic ulcer disease in children deserves further attention. Small doses may induce mucosal damage in younger children. Ulcer formation may be an idiosyncratic reaction depending on susceptibility of the mucosa to damage and related to age.

Summary

Two children who were previously healthy developed gastrointestinal bleeding following short term analgesic doses of aspirin. Endoscopic examination performed on these two children revealed peptic ulcer disease. In one patient, an initial gastrointestinal bleed after aspirin therapy was followed by a six month asymptomatic interval. However, a second course of aspirin therapy resulted in gastrointestinal bleeding.

Short term aspirin therapy may be an important etiologic factor of peptic ulcer disease in children.

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Eosinophilic Granuloma of the Cervical Spine in an Adult

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Eosinophilic granuloma of the cervical spine has not been previously reported in an adult. We present a 58-year-old woman who developed signs and symptoms of a cervical radiculopathy and was found to have a solitary eosinophilic granuloma of the C_5 (fifth cervical) vertebra.

Case report

A 58-year-old woman was admitted to Queens Hospital Center with a two-week history of neck pain radiating to both shoulders, and weakness of her left arm. The pain was not exacerbated by motion of the neck, nor alleviated by aspirin. On direct questioning there were no other complaints referable to the nervous system. Her background history was noncontributory.

On examination, the spine was nontender and there was full range of motion of the neck. Mild but definite weakness of the left deltoid, biceps, brachioradialis, and supinator muscles was elicited. The left biceps jerk was absent. There were no sensory deficits. The plantar reflexes and gait were normal.

The serum alkaline phosphatase was greater than 340 units per liter (normal 70 to 115 units per liter). Complete blood count, erythrocyte sedimentation rate, prothrombin time/partial prothrombin time, serum electrolytes and liver function test findings were normal. Findings on x-ray films demonstrated wedged collapse of the C_5 vertebral body and preservation of the adjacent intervertebral discs, with associated prevertebral soft tissue mass (Fig 1A). None of the other vertebral bodies showed these changes. Pelvic x-ray films revealed sclerosis and expansion of bone with cortical thickening and thickened irregular trabeculae in the right ilium, compatible with Paget's disease. Skull x-ray films showed normal findings. Bone biopsy of the right iliac bone confirmed the diagnosis of local Paget's disease. There was increased uptake in the pelvis (Paget's disease) and the C_5 vertebra on radioisotope bone scan. Myelography performed via C_1-C_2 puncture demonstrated an incomplete extradural block at C_5 (Fig. 1B).

At surgery, the C_5 vertebral body was noted to be entirely replaced by firm, gray tissue. This abnormal vertebral body tissue extending into the epidural space was removed and a bone graft was interposed.

Microscopic examination of the tissue from C_5 revealed histiocytes and bilobed, mature eosinophils with a sprinkling of plasma cells (Fig. 2). The histiocytes displayed a syncytial pattern with several nuclei showing indentations of the nuclear membrane. Multinucleate giant cells were present in association with areas of microscopic hemorrhage. Foam cells were not conspicuous. Some fragments showed the lesion merging into areas of subperiosteal fibrous scarring and reactive new bone formation. These are the histologic characteristics of eosinophilic granuloma.

Six months postoperatively, the patient is asymptomatic without neurologic deficit.

Comment

This 58-year-old woman clearly had solitary eosinophilic granuloma of the C_5 vertebra. Findings on her history and neurologic examination pointed to a cervical radiculopathy. The findings on plain x-ray film of a wedge-shaped collapsed vertebral body with preservation of the adjacent intervertebral discs and unaffected vertebral plates are typical of eosinophilic granuloma.[1] Eosinophilic granuloma of the spine can occasionally occur without this typical pattern of collapse.[2] Microscopic evaluation confirmed the diagnosis of eosinophilic granuloma. The coexistence of eosinophilic granuloma of the

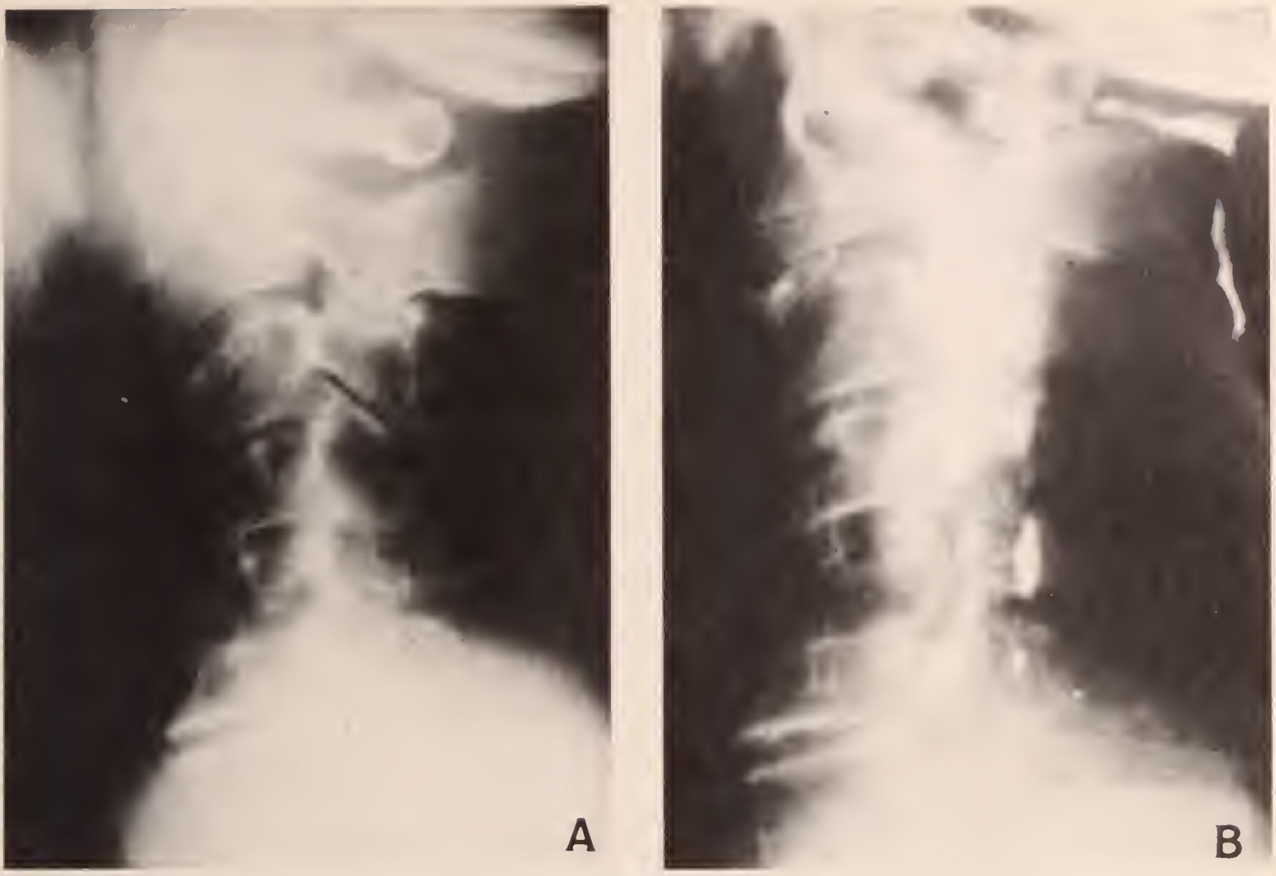

FIGURE 1. (A) Plain lateral x-ray films of cervical spine demonstrating wedged collapse of body of C_5 vertebra with preserved intervertebral disc spaces. (B) Myelogram (lateral view) demonstrating partial extradural block at level of C_5.

spine and Paget's disease of the pelvis is probably coincidental.

This is the first reported case of eosinophilic granuloma of a cervical vertebra in an adult. Although eosinophilic granuloma of bone is usually seen in children and adolescents, it has been described in adult patients in other skeletal localizations. The common sites of involvement are the pelvic bones, skull, thorax, major long bones and thoraco-lumbar spine.[1,3] Eosinophilic granuloma of the cervical vertebra has been reported much less frequently; all the patients have been under 19 years of age.[4–13] In most of these cases, the disorder has been unifocal,[4–6,9,10] but occasionally multifocal involvement, including the cervical spine, has been noted.[5,11–13]

Cervical spine eosinophilic granuloma usually appears with onset of neck pain and torticollis.[4,5] Neurologic dysfunction is uncommon, having previously been reported in only six cases.[4,5,9–11] Four of the patients had cervical radiculopathies similar to our case.[4,5,9,11] Cervical myelopathy has been reported twice.[5,10]

The diagnosis of eosinophilic granuloma must be considered in patients of any age with characteristic findings on x-ray films at any level of the vertebral column.

Summary

A 58-year-old woman with a cervical radiculopathy was found to have solitary eosinophilic granuloma of the C_5 (fifth cervical) vertebra. This is the first re-

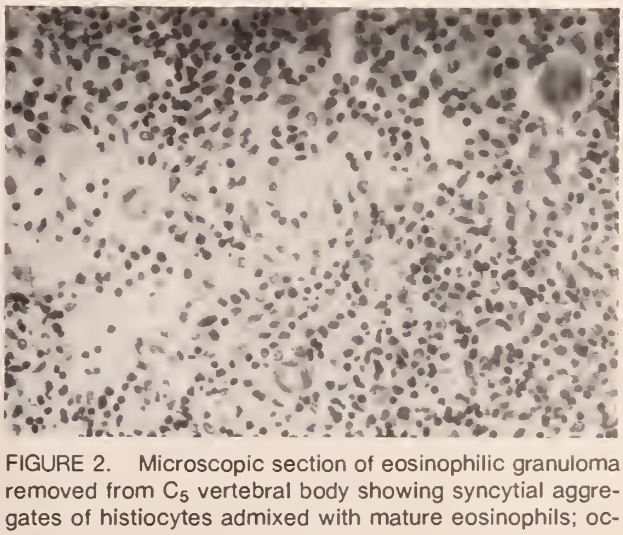

FIGURE 2. Microscopic section of eosinophilic granuloma removed from C_5 vertebral body showing syncytial aggregates of histiocytes admixed with mature eosinophils; occasional background giant cells.

ported case of eosinophilic granuloma of the cervical spine in an adult.

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Hemoglobin E
In a Refugee Family

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The hemoglobinopathy most readily associated with target cell formation in the peripheral blood is C hemoglobin which is found in 2 to 3 percent of American Negroes.[1] In other geographic areas, however, the situation is quite different. In Southeast Asia, hemoglobin E is known to have an incidence as high as 30 percent in certain areas[1-3] and is the hemoglobinopathy most often resulting in anemia with target cells. In the heterozygous form (E·A) this hemoglobin produces no abnormality in the peripheral blood, but the homozygous form (E·E) produces a mild anemia with microcytosis and a high percentage of target cells.[1,4] Combinations of hemoglobin E and thalassemia have been observed and such combinations produce a moderately severe microcytic anemia with target cells and spherocytes in the peripheral blood.[5] In the past, the two hemoglobins, C and E, have been widely separated geographically and the differential features of the two have not been a source of concern. Great population shifts since 1975 will certainly increase the incidence of hemoglobin E in the United States, and the differential diagnosis of anemia with target cells must be expanded to include this hemoglobinopathy.

Case report

A 36-year-old Laotian refugee, living in the United States for two months, was seen for a routine medical examination. Her only complaint was of heavy menstrual flow for which she had undergone dilatation and curettage three years before. Results of physical examination, with the exception of pallor in the nailbeds and conjunctivae, were normal. On repeated examinations no splenic enlargement was found.

Hematologic data on the patient, as well as her husband and son, are shown in Table I. The values were obtained with either a Coulter Model S or a Coulter Model ZF. Peripheral blood smears from the family members are shown in Figure 1. Hemoglobin electrophoresis of blood samples from the family was performed on cellulose acetate strips at pH 8.2 to 8.6 and quantitative data obtained by densitometry scanning (Helena Labs) (Fig. 2). In the patient's blood a single hemoglobin band was found which migrated in the C,E,A_2 position and was confirmed by electrophoresis on citrate agar (pH 6.0 to 6.3) to be hemoglobin E. Because of the numerous spherocytes noted in her peripheral blood smear, osmotic fragility of the patient's red blood cells was tested with a commercial kit (Becton-Dickinson) and is shown in Figure 3. Initial laboratory studies indicated iron deficiency in the patient. She was placed on ferrous sulfate 300 mg. three times daily, and her hematologic response was monitored (Table I). A rise in the hematocrit from 24.5 to 42.2 occurred after three months of therapy, but severe microcytosis persisted as did prominent spherocytosis in the peripheral blood. Hemoglobin electrophoresis, repeated after iron replacement, again revealed the band in the E position.

Comment

Hemoglobin electrophoresis studies on this family indicated homozygous E hemoglobin in the patient and heterozygous E hemoglobin in the husband and son. Initially the patient had a moderately severe anemia with marked microcytosis and target cell formation. The severity of the patient's anemia and microcytosis were greater in degree than is usually seen with homozygous hemoglobin E. The mild anemia usually seen with this disorder was worsened by coexistent iron deficiency and after three months of oral iron therapy the patient's hematocrit rose to 42.

Spherocytosis was prominent in our patient's peripheral blood, and while this finding has been noted in combinations of thalassemia-hemoglobin E,[5] it is not characteristic of E·E homozygotes.[4] The osmotic fragility curve of our patient's red blood cells shows the increased resistance to osmotic lysis usual with E·E hemoglobin, whereas combinations of thalassemia-E have been shown to have an entirely different curve.[4]

Hemoglobin E was initially described in 1954 in a group of Thai patients thought to have thalassemia.[6] Hemoglobin electrophoresis permitted detection of an undescribed hemoglobin variant E, in which the chemical abnormality was later found to consist of substitution of a lysine residue for a glutamic acid residue in the beta chain.[7] The clinical manifestations of hemoglobin E are usually mild and splenomegaly is uncommon. In the heterozygous form (E·A), anemia is not seen and the peripheral blood morphology is usually normal[1,4] although a recent report indicates a higher frequency of microcytosis than has been previously recognized.[8] Hemoglobin

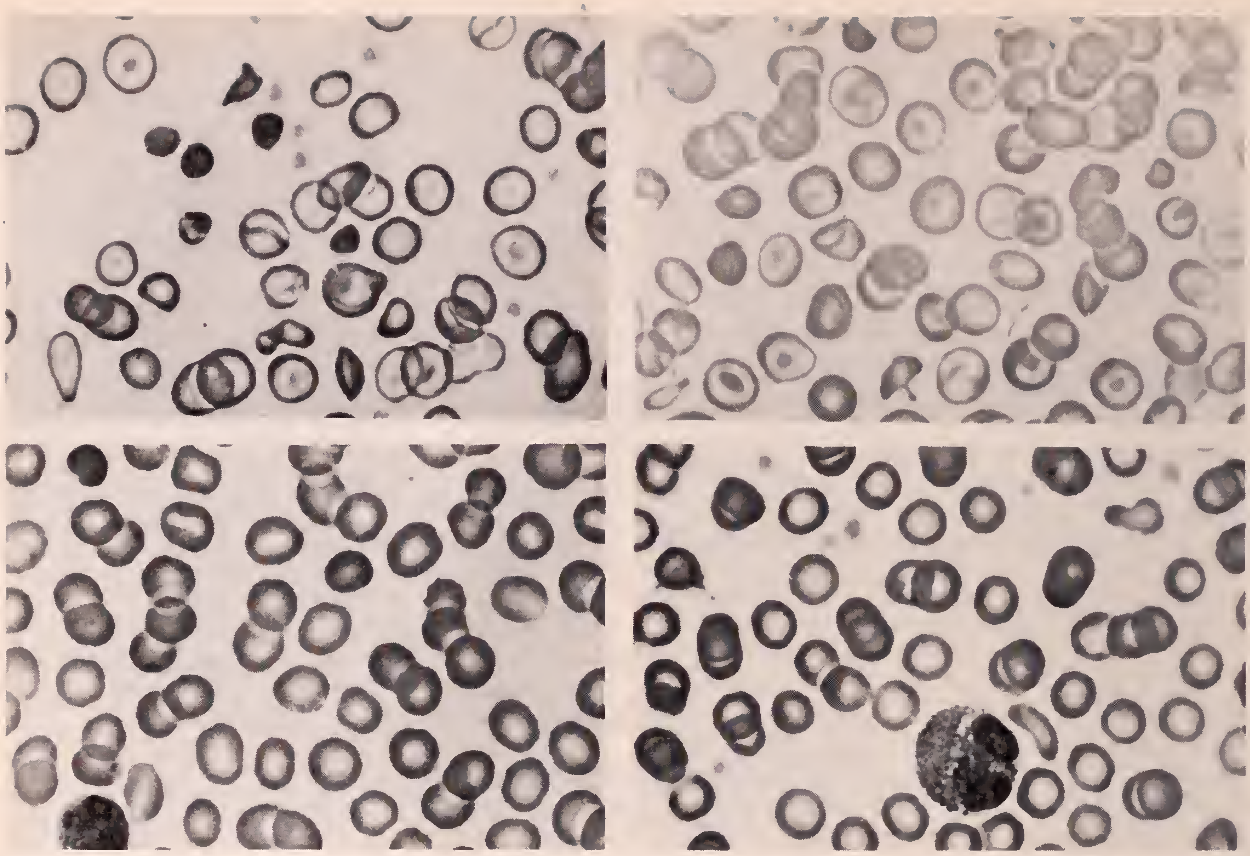

FIGURE 1. Peripheral blood smear from patient before and after three months of oral iron therapy as shown in upper left and upper right hand sections. Peripheral blood smears from husband and son are shown in lower left and lower right hand sections, respectively (magnification ×100).

electrophoresis in such cases yields hemoglobin E levels of 35 to 40 percent.[1] In the homozygous form (E·E), a mild microcytic, normochromic anemia is found and the peripheral blood smear shows striking target cell formation of 25 to 60 percent.[4] There is usually no evidence of accelerated red cell turnover[9] and reticulocytosis is not prominent. Hemoglobin electrophoresis shows only hemoglobin E with occasional mild elevations of hemoglobin F.[4] When hemoglobin E is present with thalassemia, a moderately severe anemia occurs along with splenomegaly and accelerated red cell turnover. The peripheral blood smear shows microcytosis and 10 to 40 percent target cells. Hemoglobin electrophoresis shows marked elevations of hemoglobin F in combination with hemoglobin E.[5]

The hemoglobinopathy most likely to be confused with homozygous E hemoglobin is hemoglobin C, which shows target cell formation similar to that seen in our case. The microcytosis characteristic of homozygous E hemoglobin is not usually seen with hemoglobin C. More important, the geographic distributions of these two hemoglobins are entirely different. Hemoglobin C is found in 2 to 3 percent

TABLE I. Hematologic data on patient (mother) and family members.

	Mother			
Test	Before	After	Father	Son
White blood cell count*	8.40	8.20	5.30	6.60
Red blood cell count†	4.75	7.00	5.30	4.87
Hemoglobin**	7.3	12.2	14.1	11.7
Hematocrit	24.5	42.2	42.9	36.3
MCV**	56.0	61.0	83.0	73.0
MCH**	15.7	17.4	26.3	28.8
MCHC**	28.0	28.6	32.5	32.4

* Times 10^9 per liter.

† Grams per deciliter.

** MCV = mean corpuscular volume; MCH = mean corpuscular hemoglobin; MCHC = mean corpuscular hemoglobin concentration.

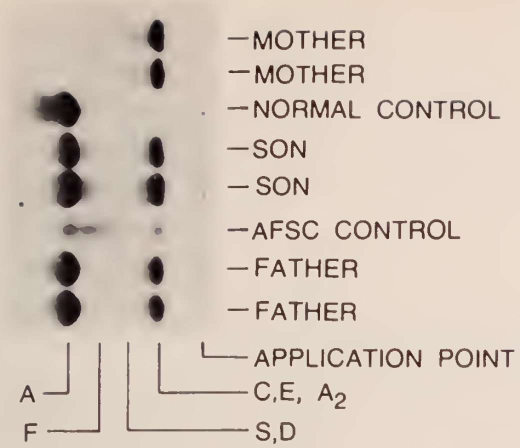

FIGURE 2. Hemoglobin electrophoresis of the patient's blood on cellulose acetate showed a single band in the C,E,A_2 position. Samples from family members showed E and A hemoglobin.

of the Negro population in the United States[1] but has not been reported in Southeast Asia.

While there are sporadic case reports of hemoglobin E from Turkey, Greece, and Central Canada,[10,11] it is by far most commonly seen in Southeast Asia. Investigations in that region have indicated that greater than 30 percent of Cambodians and Thais have hemoglobin E in either the homozygous or heterozygous state.[2,3] While the incidence of hemoglobin E in the United States is negligible, the great population shifts that have occurred in Southeast Asia since the withdrawal of United States military forces from Viet Nam in 1975 can be expected to significantly alter the geographic distribution of hemoglobin E. An estimated 220,000 refugees from Southeast Asia have obtained permanent residence in the United States. Data from the Statistics Branch of the Immigration and Naturalization Service on Thais indicate major concentrations in California, New York, Texas, and Illinois with lesser numbers in each remaining state. Since hemoglobin E can be expected in approximately 30 percent of this group, this hemoglobinopathy must now become a part of the differential diagnosis in cases of anemia with target cells.

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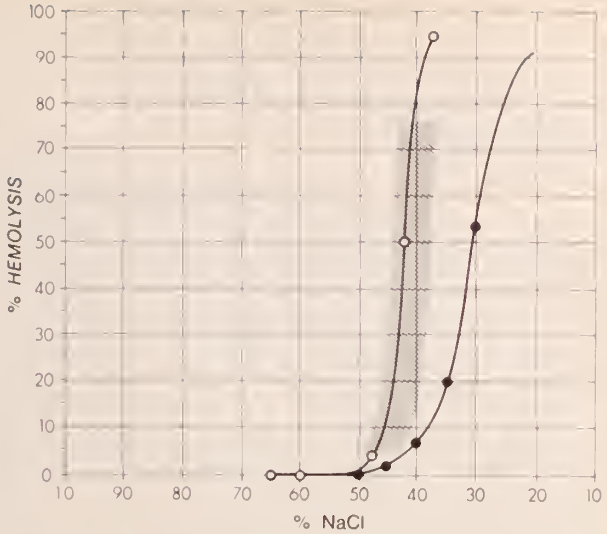

FIGURE 3. Osmotic fragility of patient red blood cells (closed circles) and normal control red cells (open circles).

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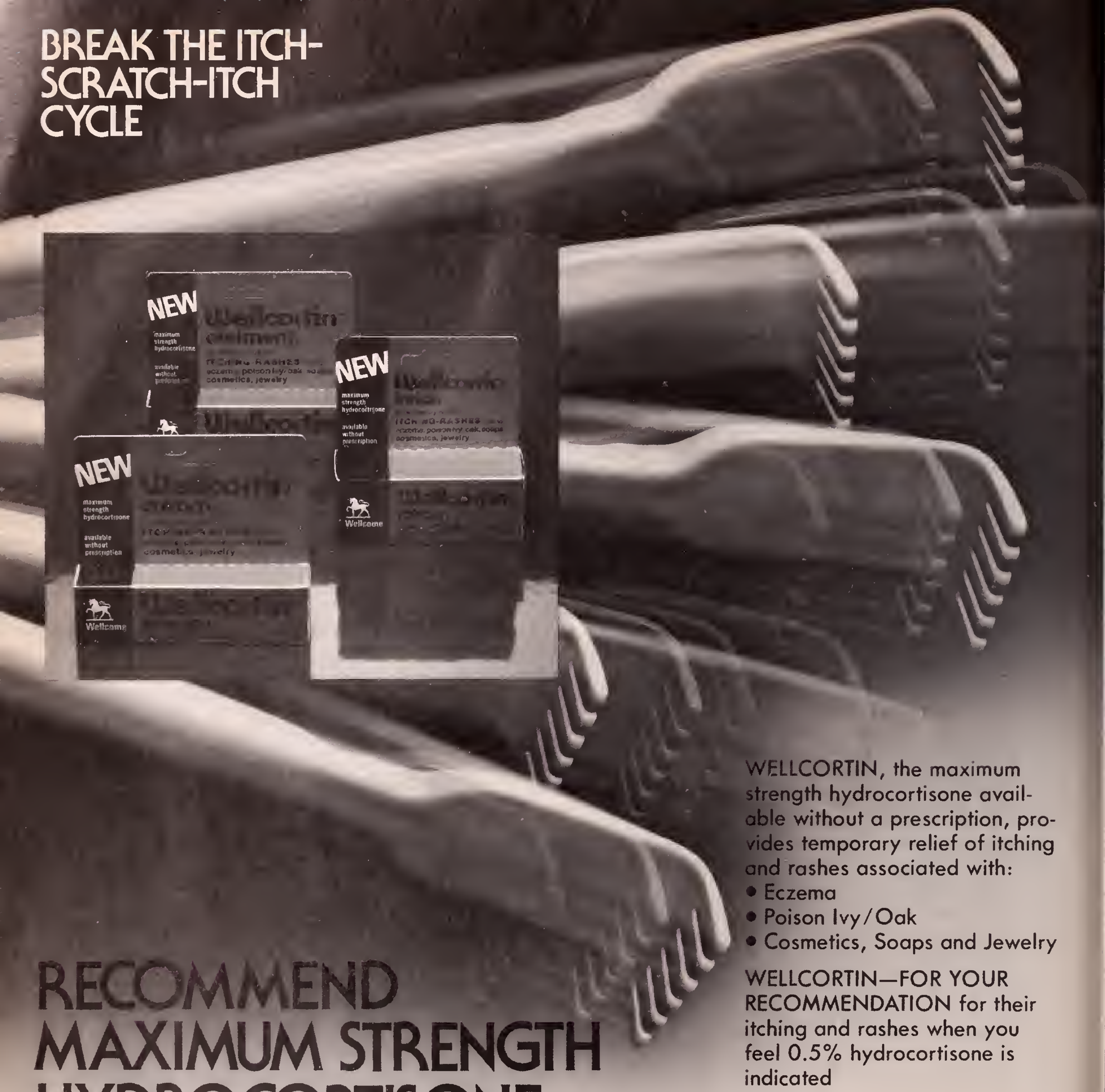
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Renal Artery

Originating above celiac axis

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The renal arteries normally take origin from the aorta between the first and second lumbar segments, usually at the level of the first to second lumbar interspaces, with deviations in level of origin of approximately one vertebral body in either direction seen commonly. The two main renal arteries usually arise within 1 mm. of each other, but in 25 percent of patients they may originate by as much as two vertebrae apart[1]; also, 30 percent of the normal population has more than one renal artery per side. Variations in the origin of the renal arteries occur more frequently in the presence of renal anomalies, including malrotations, fusions, and ectopias, most notably horseshoe kidney.[2]

Accessory renal arteries usually take origin from the aorta, but may arise from internal and external iliac, celiac, inferior phrenic, right colic, inferior mesenteric, right hepatic, lumbar, gonadal, and middle sacral arteries.[2] Also, rather than originating directly laterally, the renal arteries may leave the aorta from a partially anterior or posterior site.

The following case is an example of a rare anomaly in renal arterial blood supply—origin of a renal artery from above the celiac axis at the level of the eleventh thoracic vertebrae.

Case report

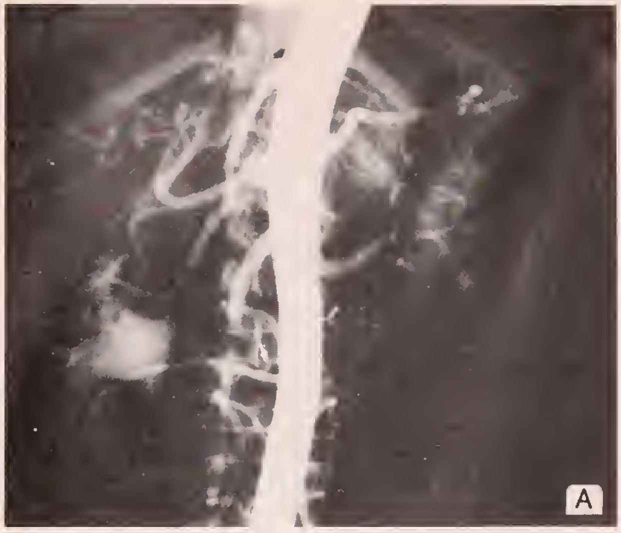
A 32-year-old black female was found on routine physical examination to have a blood pressure of 200/120; prior blood pressure readings had been normal. Physical examination findings were normal, other than for a pedal edema. Electrocardiogram, chest x-ray films, and renal function studies tested out normal. A renal scan revealed decreased flow to the left kidney. Aortography and selective renal arteriography demonstrated irregular narrowing of intrarenal vessels of the left upper pole and a defect in the left nephrogram consistent with an arteritis (Fig. 1). In addition, a high anomalous right main renal artery was noted, taking origin from the aorta above the celiac trunk at the level of the eleventh thoracic segment with a lower accessory renal artery supplying the remainder of the right kidney.

Antihypertensive therapy was instituted with good results, and the patient was discharged, to be followed as an outpatient. Her blood pressure remains in good control and she is presently asymptomatic. The etiologic origin of the hypertension was not definitely ascertained, but is presumed to be secondary to an arteritic process in the left kidney.

Embryology

The arterial supply to the adult kidney, the metanephros, is derived from the vessels supplying the primitive mesonephros. Variations may be explained by the following schema; the mesonephric vascular supply extends from the sixth cervical to the third lumbar segments (Fig. 2). The more cephalad vessels normally disappear before those more caudad have attained maximal development.[3] In the lumbar region, the remaining mesonephric arteries form an extensive network of small segmental branches from the lateral aorta, the rete arteriosum urogenitale, from which the mesonephros (wolffian body) and later the metanephros (permanent kidney), are supplied during the pelvic ascent. As the metanephros ascends, it derives its vascular supply from the more cranial portion of the rete and the caudal branches involute. When the metanephros ascends to the level of the adrenal gland, the remaining vessel(s) derived from the rete become(s) the definitive renal artery.

Persistence of primitive cranial mesonephric vessels may result in high anomalous renal arterial supply, as occurred in this case. In view of this rather complicated scheme, it is surprising that variations in origin of the renal arteries do not occur more frequently.



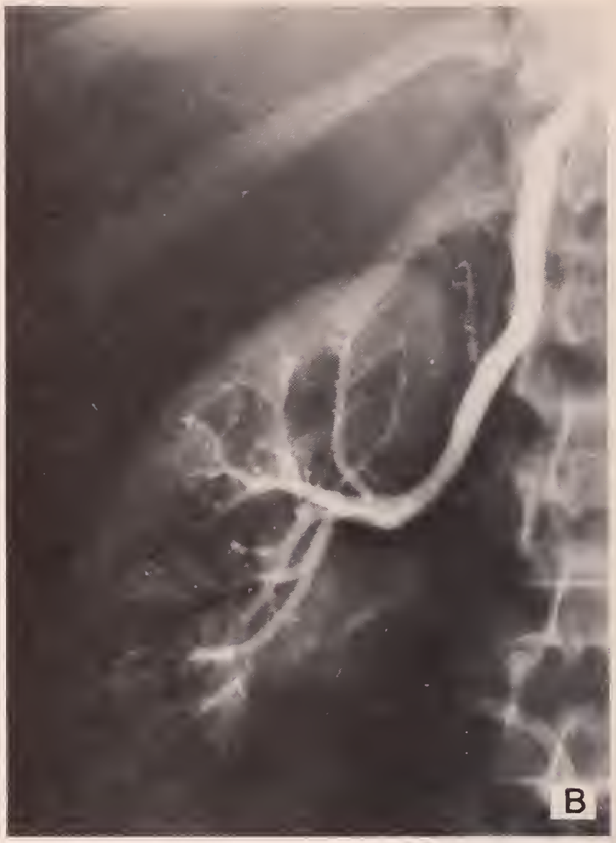


FIGURE 1. (A) Midstream aortography reveals high anomalous right main renal artery originating at eleventh thoracic vertebra level (black arrow). Note smaller accessory renal artery taking origin from third lumbar level (white arrow). (B) Anomalous vessel better demonstrated on selective injection.

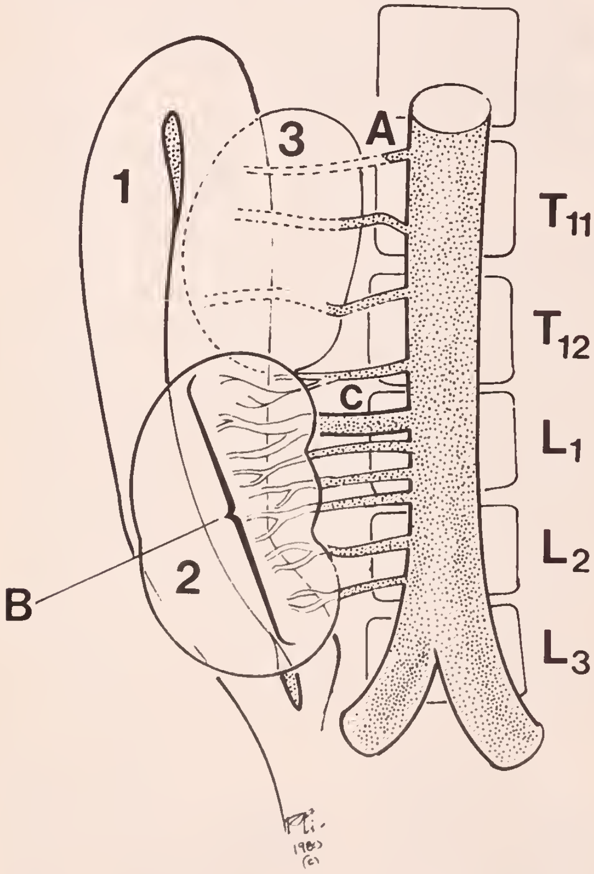


FIGURE 2. Diagram of embryologic derivation of renal arterial supply. 1: primitive mesonephros, 2: metanephros (definitive kidney), 3: adrenal gland; A: primitive cranial mesonephric vessels, B: rete arteriosum urogenitale, C: normal renal arterial supply is persistent branch(es) of rete arteriosum urogenitale (vessel with thicker walls).

Comment

In 1967, Doppman[3] presented a case in which a single renal artery arose from the aorta at the level of the eleventh thoracic segment. Tegtmeyer[4] in 1969 reported a patient in whom a single right renal artery arose at the level of the body of the eleventh thoracic vertebra associated with agenesis of the left kidney.

In 1973, Cerny and Karsch[1] described a patient, with a right renal artery arising at the level of the eleventh thoracic vertebra, who had a renal artery aneurysm and systemic hypertension. That this might be more than coincidental is supported by Marshall's[5] autopsy series in which a significantly increased incidence of aberrant renal arteries was noted in hypertensive patients, and he postulated a causal relationship secondary to renal ischemia.

A normal kidney, urographically, with no apparent blood supply on aortography, should alert the radiologist to search both high and low for an ectopic renal artery, since the aorta at the level of the eleventh thoracic vertebra often is not visualized routinely.

Anomalous renal arteries, if not demonstrated preoperatively, may be lacerated during renal surgery. Also, aberrant renal arteries must be considered in the evaluation of the suitability of a renal donor for renal transplantation.

Summary

High anomalous origin of the main renal artery above the level of the celiac axis is a rarely seen anatomic variant. The anatomy, embryologic condition, and significance to the surgeon and radiolgist have been reviewed.

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Medical Malpractice Panel

How has it worked?

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In 1974, the New York State legislature, knowing that the people of the State were about to be stripped of commercial medical malpractice insurance coverage, passed chapter 657 of the laws of that year, leading to amendment of section 148 (a) of the judicial law. This amendment established as mandatory the type of MMP (medical malpractice panel) that Justice Harold Stevens had encouraged as an experimental procedure in New York County between 1971 and 1974.

After a subsequent six-year experience with MMPs, the New York State legislature is currently being asked to consider a change in the legislation from mandatory to optional panels, and to repeal the automatic calendar preference now given to medical malpractice cases. In significant part, the proposed legislation has been influenced by the final report of the ad hoc committee on MMPs to the chief administrative judge on the operation of MMPs in New York State, dated March, 1980.[1]

The original expectations and hopes of the legislature for this panel-type of hearing can be currently assessed from several viewpoints, based on the experience of individual panel members and on formal reports of studies of medical malpractice procedure.[1,2]

Evaluation

Weeding out. First, have frivolous claims been weeded out? This question can be answered only by the accumulating experience of those jurists and others who have had continued long-term contact with such panel activities. The author's experience with 19 cases as a panelist over a nine-year period suggests that in recent years, the cases have been more carefully selected, better screened by the plaintiff's attorneys, and more effectively presented with supporting medical opinion.

Settlement negotiations. Has the panel provided a structured forum for settlement negotiations? In the years 1976, 1977, and 1978, out of 1,509 panel hearings throughout the State of New York, only 65 or approximately 4 percent were actually settled at the panel. Throughout the individual judicial districts this is a widespread phenomenon. The panel itself is only infrequently the immediate location of the settlements.

Strengths and weaknesses. Are the litigants apprised of the strengths and weaknesses of their respective cases? Again this does not seem to be the case in any detail, other than in terms of the final opinion of the panel. Custom may vary in the different judicial districts around the State.

Case reductions. Has there been a reduction in the number of medical malpractice cases brought to trial? The ad hoc committee reported that out of 3,500 pretrial conferences by the courts during 1976, 1977, and 1978, 801 or 23 percent of the cases were settled by this court activity.[1] This 23 percent was a much less successful accomplishment than was pretrial settlement in 66 percent of cases that came before medical malpractice panels (965 cases out of 1,574). Is it possible that the pretrial conferences by the court removed by settlement those cases easiest to dispose of, leaving the much more difficult cases to be handled by the MMPs? In such circumstances the MMP would be even more effective than indicated by the previously mentioned comparative percentage figures.

Settlement. Many of the medical malpractice cases settled or brought to trial in 1976, 1977, and 1978 were concerned with events that occurred prior to 1975 and were underwritten by commercial carriers who wanted to settle claims quickly and to liquidate the burden of their malpractice underwriting. We cannot assume that this factor favorably influenced the high rate of postpanel settlements; then, similarly, it also should have, but apparently did not, improved the percentage of pretrial settlements conferenced by the courts. The more recently formed Medical Liability Mutual Insurance Company is beginning to have experience with cases at issue beginning in 1975 and thereafter; this should be of great interest.

The committee assumes, perhaps with good reason, that the court's pretrial conference is hindered

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in part by the litigants' anticipation of the MMP hearing and its potential beneficial effect in either direction. This would suggest, however, that a review of the facts by an impartial jurist, impartial attorney, and a carefully selected and impartial physician appeals to the public as an appropriate mechanism of tort review and recommendation.

Congestion. Has there been a reduction in the congestion of the civil-trial court calendars? The ad hoc committee reports do not address this issue. The report of the Institute of Judicial Administration indicates that in 1975, out of the 115,000 civil cases received by the New York State Supreme Court, 38,000 were tort cases and 932 were medical malpractice cases (2 percent of all tort cases and approximately 0.8 percent of all civil cases).[2] In 1976, the figures were similar. Medical malpractice cases form roughly 2 percent of all tort cases that go to trial; the more important figure in determining the burden on the courts would be the percentage of all civil cases going to trial. In addition, in terms of time required and effort spent in preparation of various types of tort cases and their comparative complexity, one needs to know whether very many tort cases and other civil cases were more demanding or less demanding and distressing, than are the small percentage that are made up of medical malpractice actions. The available statistics indicate that following the 1,509 MMP hearings held during 1976, 1977, and 1978, 474 or 32 percent, went to trial; of these 479 cases, 300 (20 percent of the total) were settled during the trial, and the remaining 179 (12 percent) continued to a verdict.

Verdicts. Have the proportion of jury verdicts been reduced significantly? This can only be known by comparison with figures from earlier years, which are not offered in the Ad Hoc Committee Report.[1]

Time Element. Have MMPs diminished the amount of time that must be devoted to medical malpractice cases? The Ad Hoc Committee Report[1] does not help us here, but suggests that much energy is expended by judicial personnel, including and perhaps especially by judges, in the effort to settle cases by means of the pretrial court conference. Although grateful for this effort, we still cannot determine clearly from the ad hoc committee report whether the MMP supplements or thwarts this judicial effort.

Costs. Have MMPs tended to diminish the costs to the parties involved and to the courts? The committee comments that the average dollar value of settlements subsequent to panel disposition has increased, and the settlements are significantly higher than are those that occur as a result of pretrial proceedings.[1] Regrettably, the methods of reporting the dollar values for the two types of activity are not comparable in the report. The ad hoc committee did not, and perhaps could not, determine whether or not the pretrial conference by the courts was successful, largely in dealing with the smaller claim and the less serious case; without such facts, it is premature to blame the MMP for higher awards or to claim that the panel procedure has "exacerbated" the problem.

The averaging of awards can be misleading, since in a hypothetic situation a single very large award could nullify a favorable downward trend due to panel effect on a large number of smaller awards. Hence, a study of trends in the median as well as average of awards is of considerable interest. At the request of Justice Hyman Korn, Robert Quinn, of the medical report office of the Supreme Court of New York County, reported the results of a sampling of 92 cases that had had MMP hearings between September, 1975, and December, 1976.[2] This study of the mean of the awards, as well as of the medians, confirmed that settlements after a panel but before trial involved the highest average dollar award, as well as the highest median dollar award, along the spectrum of pretrial settlement activities. Out of the 92 cases studied, 13 went to trial; verdicts for the plaintiff involved very high average awards but were very few in number.

Effectiveness of MMPs

The greatest effectiveness of MMPs (66 percent pretrial settlements) as compared to that of pretrial conferences by the courts (23 percent) is indicated by the available statistics derived from all New York State judicial districts, with the partial exception of Kings County.[1] Of considerable interest is the fact that postpanel settlements before trial were reached with roughly the same high percentage (66 to 80 percent), no matter whether or not the panel made definite recommendations concerning liability. The ad hoc committee recognized this fact in its final report.[1] It may be that at times an MMPs failure to make a recommendation is based on the need to submit questions of fact to a jury; this may force both the defendants' and the plaintiffs' attorneys to reexamine their facts and perhaps conclude that the facts are not sufficiently strong to withstand jury scrutiny. Is it possible that when the attorneys on both sides are faced with an experienced team of jurists and physicians who have examined their case, said attorneys may be sobered in their enthusiasm for pursuing such cases to trial, even though the cases themselves may have substance?

Criticisms

Criticisms of MMPs have included a broad collection of items,[3,4] such as (1) the future likelihood of attacks on the constitutionality of the panel, (2) the difficulty in uncovering facts that may be grounds for disqualification of panelists, (3) the problem of conflict of interest especially for the physician-panelist, (4) the failure sometimes to include in the recommendation not only a decision concerning malpractice but also a statement of proximate cause, (5) problems related to the subpoena of panelists in subsequent trials, (6) the question of the right of particulars, (7) the dissatisfaction of attorneys with the cost and extra procedure involved in MMP activity, (8) possible jury bias brought about by panel activity, and (9) improper findings by a panel in cases in which questions of fact or credibility should have been referred to a jury. However, other types of alternatives to the panel mediation procedure, such as no-fault insurance, worker's compensation, or compulsory arbitration, might very well face greatly similar challenges, procedural problems, and problems of bias. It is not likely that such difficulties will be avoided simply by changing the name and format of the mediation process.

Recommendations

In March, 1980, the ad hoc committee on MMPs recommended to the chief administrative judge of the State of New York that MMPs should be optional rather than mandatory, and should not have automatic calendar preference.[1] The committee felt that the 68-percent rate of settlements subsequent to MMP consideration and prior to trial during 1976 through 1978 did not reduce significantly the number of actions brought to trial, and compared unfavorably with 83.5 percent of settlements before trial of "other torts." At this point in its report, the committee was aware of, but failed to comment on, that during the same period, pretrial conferences by the courts settled only 23 percent of medical malpractice cases before trial. Also, the committee's report leaves unclear whether the combination of pretrial conference by the court and MMP activity in fact equalled or exceeded the pretrial disposition rate of motor vehicle and other tort categories. In any event, these figures, reported by the ad hoc committee itself, strongly suggest that the medical malpractice panel has not been a failure in this regard. It is difficult to agree with the ad hoc committee that the statistics offered clearly suggest that an aggressive pretrial conference conducted by the court will produce a greater rate of settlements than will a court "encumbered" by an additional layer of MMP procedure.

The ad hoc committee indicates that the number of medical malpractice actions filed have not been reduced; however, many other factors beyond the control of the MMP contribute to the frequency of medical malpractice cases.

The total cost statewide of $400,000 in support of the MMP procedure, as reported by the ad hoc committee, is impossible to evaluate, in the absence of statistics that indicate the total cost of all tort actions filed with the Supreme Court, for any fiscal period.

The committee commented that plaintiffs who receive a unanimous panel recommendation are "notorious" in demanding extremely high settlements and in proceeding to trial with a verdict and a costly settlement. It is difficult to reconcile this statement with the ad hoc committee's reported rate of a 66-percent settlement after MMP and before trial, a rate that remains the same, irrespective of whether or not the MMP rendered a definite decision on liability.

The committee also commented that defendants who have received a unanimous finding of no liability from an MMP are rarely willing to discuss settlement. If a physician-defendant feels that he is well supported in his claim of "not guilty," why should he proceed to settlement, when his professional reputation as well as personal finances are at stake? Is the purpose of the law and the courts always to reach "settlements," irrespective of the merits of the plaintiff's claim? Indeed, one of the expectations of the legislature was that the MMP would reduce the number of frivolous and poorly supported claims.

The committee may be correct that the legislative objectives of reducing the costs of verdicts and settlements have not been realized by the MMP procedure; however, plaintiffs and their attorneys have become much more sophisticated within the past eight to nine years in the discovery and selection of appropriate cases and in seeking strongly supportive medical advice. This factor alone would tend to raise the costs of verdicts and even of settlements.

Physicians who serve on MMPs can expect that they will be subject to subpoena for testimony at a subsequent jury trial; this may be part of the price to be paid for the benefits of MMPs. However, such physicians should be reassured by a more clear definition of the legitimate extent of this subsequent testimony. Product liability from time to time may be inextricably intertwined with allegations of malpractice against individual physicians, adding a burden of decision on the medical as well as the other members of the MMPs. Matters of physician bias, conflict of interest, and "independence" of expert witnesses are currently being reviewed by the courts in the State of New York. Hospitals also are being drawn into the procedure, in connection with the actions of their employees who may have functioned in concert with the physician accused of malpractice.[5]

It remains reasonable to believe that the opinion of an experienced physician panel-member gains a very large measure of public credence when supported by the opinions of an experienced jurist and a respected attorney. This impression suggests that the present MMP is a far more effective social instrument than would be a panel of physicians alone, no matter how respected and experienced they may individually be.

Comment

The present MMP brings together experienced and knowledgeable attorneys, jurists, and physicians in a mutual attempt to settle difficult problems. It enhances the respect of each for the other, and increases the belief of each that there is in the others' professions a large measure of honesty, goodwill, and willingness to evaluate and to negotiate without significant professional bias. To assess accurately the social impact of these values, the statistics of MMPs should be followed through the years, with strong statistician input in the initial design of evaluation studies, as well as throughout the collection and final analysis of the assembled data. In medicine we have often learned that the failure to recognize the value of the statistician in the original plan of a study can lead to disappointment and frustration in subsequent efforts to derive meaningful information from the collected data.

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Charles Darwin's Reprobation of Nature

"Clumsy, wasteful, blundering low & horribly cruel"

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On July 13, 1856, 47-year-old Charles Darwin, in a letter to his friend and scientific helper, Joseph Hooker, wrote as follows: "What a book a Devil's Chaplain might write on the clumsy, wasteful, blundering, low & horribly cruel works of nature." This sentence, from a man who was usually silent about his deeper emotional feelings, is one of the most grimly anguished views of the workings of nature that was ever written. How and why did Darwin come to thus express himself? What follows will first of all show—from published and unpublished evidence—how Darwin's thoughts and emotions developed in the months preceding July, 1856; possibly, Darwin's sentence expressed not only a reprobation of nature but a reprobation of himself.

In the first half of 1856, Darwin developed his theory of natural selection in a succession of different ways. He reviewed and organized masses of evidence that he had collected for the past 17 years; then he began a short sketch of his theory. By July he had stopped working on his sketch and had begun a lengthy book, *Natural Selection.*[1] The first chapter he wrote was a long and detailed evolutionary explanation (with supporting evidence) of the geographic distribution of plants and animals; he would work on this book over the next two years and complete 11 chapters and about 70 percent of the topics he intended to discuss.[1]

In July, 1856, in a letter to the American botanist Asa Gray, he indicated some of the intense anxieties that he felt about his evolutionary theory[2]:

> I should like to tell you . . . how I view my work . . . I *assume* that species arise like our domestic varieties with *much* extinction; and then test this hypothesis by comparison with as many general and pretty well-established propositions as I can find made out,—in geographical distribution, geological history, affinities, &c., &c. . . . *supposing* that such hypothesis were to explain such general propositions, we ought . . . to admit it till some better hypothesis be found out . . . it is nonessential trying to show how I try to proceed in the compass of a note. But as an honest man, I must tell you that I have come to the heterodox conclusion that there are no such things as independently created species—that species are only strongly defined varieties. I know that this will make you despise me. I do not much underrate the many *huge* difficulties on this view, but yet it seems to me to explain too much, otherwise inexplicable, to be false.[2]

In this tense letter Darwin not only indicates some of the more obvious "huge difficulties" of his theory; he also suggests—when he mentions his "assumption" that new species arise because of "*much* extinction" of older species—some of the difficulties of his concept of the war of nature. In many instances the exact mechanisms that led to the extinction of certain species could not be determined. And then there were moral and emotional difficulties: Darwin found that to think long about the war of nature—with it's massive and wasteful destruction of ill-adapted species—was "dreadful," and "like confessing a murder." [3] Yet, because the war of nature was a major force in natural selection, he had to think about it "constantly." [4]

He was also experiencing progressive anxieties because of the pregnancy of his 48-year-old wife Emma, who had previously—at intervals of about one to two years—given birth to nine children, and had suffered greatly during each pregnancy and labor. Darwin was emotionally and physically upset by pain and suffering in others; he had been distressed by his wife's pregnancies, and especially distressed by her labors. After the birth of his first child he told his friend and relative, William Darwin Fox: "What an awful affair a confinement is; it knocked me up* almost as much as it did Emma herself." When Emma was pregnant for the second time he told Fox that he "dearly wished" her confinement would be over.[3] Emma gave birth to her ninth child in May, 1851, and afterwards Darwin wrote Fox: "Please observe . . . when I have a tenth child send only condolences to me." [2]

Five years passed, and it seemed that Emma's pregnancies were over with. Then, on June 8, 1856, Darwin reported to Fox: "We are all well here except my poor dear wife who is *wretched* (perhaps in Family way) & has been wretched for weeks." † It was soon evident that Emma was, again and for the tenth time, pregnant. On June 22, and again on July 19, Darwin described her condition to Hooker: "Mrs. Darwin is hardly at all better; indeed she has rather gone back"; "My poor wife keeps as wretched as ever, but now with general oppression & not nausea—." ** Everyday, between his periods of work, Darwin would be at the side of his wife, suffering with her over her "oppression" and giving her consolation and "tender sympathy."[2] Because her pregnancy seems to have been unplanned he may have felt responsibility and guilt for her suffering.

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* "Knocked up" was Darwin's way of describing feelings of severe anxiety, which incapacitated him.

Thus, early in July, 1856, Darwin was burdened by a daily seriatim of painful thoughts about his work and his wife. These thoughts caused him to question his worth as a scientist and a husband, and to feel both estranged from—and also needful for—his wife and his friends.

He needed to discuss steadily different aspects of his work with his three English scientific friends, Joseph Hooker (botanist), Thomas Huxley (biologist), and Charles Lyell (geologist), and he was fearful of their criticisms (none of them believed in evolution). In April, Huxley had visited him at his Down House home and they had conversed about the biology of invertebrate animals (Huxley's specialty). On July 8 he wrote Huxley about physiologic functions in the ciliograde Acalephae: "The case is really important to me & it strikes me as in itself a singular physiological fact.—I presume you do not think that much water is taken in by the mouth: my impression has been that much was so taken in for respiratory & digestive processes. But I suspect that I am forgetting & that ova & spermatozoa are in a closed receptacle." He then discussed cases of bisexualism in Flustra and Ascidia.†† Huxley replied that the Acalephae achieved fertilization by taking in ova and spermatozoa through the mouth.*** On July 5 and 8, 1856, Darwin wrote to Hooker for information on the geographic distribution of plants[5]; he urgently needed this information for a chapter on geographic distribution of species in his *Natural Selection*. On July 10, Hooker replied to his letters,††† and then mentioned that he had read and admired a recently published article in which Huxley discussed fossils and brilliantly answered some criticisms of the paleontologist Hugh Falconer, who was a friend of both Darwin's and Hooker's.[6]

Darwin replied to Hooker's letter of July 10 with his letter of July 13. The first half of this letter, which has previously been only partly published, reads as follows[5]:

> My Dear Hooker: Your letter, as usual, has been most valuable to me. I am delighted at what you say about Huxley's answer & I agree most entirely: It is excellent & most clear; I thought from the first that he was right, but was not able to put it clearly to myself. —By the way to you remember Huxley's entry of "Darwin, an absolute & eternal hermaphrodite": he can find no certain cases, nor have I ever been able. Apropos to my asking him whether the ciliograde acalephes could not take in spermatozoa by the mouth which takes in so much water, he gives me a sentence like our case of pollen in which nature seems to us so clumsy & wasteful. He says "The indecency of the process is to a certain extent in favour of its probability, nature becoming very *low* in all senses amongst those creatures." What a book a Devil's Chaplain might write on the clumsy, wasteful, blundering low & horribly cruel works of nature! With respect to crossing, from one sentence in your letter I think you misunderstood me: I am very far from believing in hybrids; only in crossing of some species or "of" inserted *close* varieties. These two or 3 last days, I have been observing wheat & have convinced myself that L. Deslongchamps**** is in error about impregnation taking place in closed flowers; i.e. of course I can judge only from external appearances. By the way R. Brown†††† once told me that the use of brush on stigma of grasses was unknown. —do you know its use?

In the rest of his letter Darwin discusses some aspects of the geographic distribution of plants, asks Hooker to read the geographic distribution chapter of his *Natural Selection* book, and reports that his friend Lyell is "coming round at a Railway pace on the mutability of species, & authorises me to put some sentences on this head in my preface." **

A reading of Darwin's letter shows that his sentence—"What a book a Devil's Chaplain might write on the clumsy, wasteful, blundering, low and horribly cruel works of nature!"—occurs as an intense outburst of subjective feelings, in the middle of a lengthy, spirited, and objective discussion of a wide range of botanic and biologic facts and opinions. The sentence conveys a mood of depression and anger, which is suddenly and abruptly expressed, and then just as suddenly and abruptly curtailed. Darwin was of a passionate nature, and one of his passions was to control his deeper emotions.

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† Unpublished letter, the Pearce Collection, Woodward Biomedical Library, the University of British Columbia, Vancouver, Canada.

**Unpublished letters, the Darwin Papers, Cambridge University Library, Box 114.

†† Unpublished letter, the Huxley Papers, Imperial College of Science and Technology, London.

*** Huxley's reply is reconstructed from Darwin's July 13, 1856, letter to Hooker.

††† Unpublished letter, the Darwin Papers, Cambridge University Library, Box 100.

**** Unidentified.

†††† Robert Brown, 1773 to 1858. English botanist, Librarian to the London Linnean Society.

Darwin's letter indicates that his sentence was most immediately prompted by the previous opinion of himself and Hooker that procreation among plants was "clumsy & wasteful," and by the opinion of Huxley that procreation among some invertebrates was "very *low*." Darwin formed his sentence by first drawing on the words "clumsy," "wasteful," and "low"; then he deepened the emotional impact of these by adding the words "blundering" and "horribly cruel." He then made the words describe not just aspects of particular plants or invertebrates, but an overview of the war of nature, which was also an overview of life and death, and of organic nature. And in viewing the war of nature he was also expressing his depression and anger over the massive and wasteful death—the "*much* extinction"—which was the result of this war. Because his belief in the war involved not only the specter of great death, but the irreligious concept of the evolution of one species from another, Darwin experienced guilt; because of this guilt he then assumed the negative identity of "a Devil's Chaplain."

It also seems plausible that at the moment that Darwin was thinking about the war of nature—and experiencing emotions of depression, anger, and guilt—he was probably also experiencing similar emotions about his impregnation of Emma. When he quoted Huxley's opinion that procreation in the ciliograde Acalephae was "indecent" and "very *low*," this may have stimulated him into thinking not only about the war of nature, but about his responsibility for Emma's pregnancy. When he wrote that the workings of nature were "clumsy, wasteful, blundering low," and then added his emphasis of "horribly cruel," he could have been referring to his clumsy blundering that had caused Emma to have a tenth and unwanted pregnancy, and then to her cruel sufferings during this pregnancy, and her even more horrible sufferings during labor.

It may have been the compounding of painful personal and scientific thoughts (Darwin usually kept his personal and scientific thoughts rigidly separated), and the painful pressure of this compounding, which then caused Darwin to break through his self-control and reprobate himself and nature.

After July 13, Darwin maintained his self-control, kept his scientific and personal thoughts separated, and did what he had to do as a family man and as a scientist. He continued (no doubt) to console Emma, and probably was with her during her confinement; perhaps he again gave her chloroform, which had just come into medical use, to alleviate the pains of her labor (he had first given her chloroform during her previous labor).[3] After the new child was born (a boy, named Charles Waring Darwin) he and Emma treated it with "infinite tenderness" when it became apparent that the child was mentally retarded.[7]

He went on collecting information on the war of nature. In June, 1858, because of Alfred Wallace's discovery of natural selection, he stopped working on his lengthy book on *Natural Selection*, and wrote an abstract of this which was published in 1859 as *The Origin of Species.*[4] In *The Origin*,[4] he wrote about the war of nature as follows:

> Nothing is easier than to admit in words the truth of the universal struggle for life, or more difficult—at least I have found it so—than constantly to bear this conclusion in mind. Yet unless it be thoroughly engrained in the mind, the whole economy of nature, with every fact on distribution, rarity, abundance, extinction, and variation, will be dimly seen or quite misunderstood. We behold the face of nature bright with gladness, we often see superabundance of food; we do not see or we forget, that the birds which are idly singing round us mostly live on insects or seeds, and are thus constantly destroying life; or we forget how largely these songsters, or their eggs, or their nestlings, are destroyed by birds and beasts of prey; we do not always bear in mind, that though the food may be now superabundant, it is not so at all seasons of each recurring year.

Here Darwin views the war of nature not with horror but pragmatically—and perhaps with a certain grim eloquence—as an essential, everyday fact of life. He was, after all, mainly and steadily, a hard-headed and deeply seeing scientist, and only momentarily, and quite atypically, a moralizing "Devil's Chaplain."

In *The Origin*,[4] after the above passage, he then countered his 1856 sentence of reprobation of nature with the following sentence: "When we reflect on this struggle, we may console ourselves with the full belief that the war of nature is not incessant, that no fear is felt, that death is generally prompt, and that the vigorous, the healthy, and the happy survive and multiply."

In *The Origin's*[4] conclusion he stated:

> Thus, from the war of nature, from famine and death, the most exalted object of which we are capable of conceiving, namely, the production of the higher animals, directly follows. There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been and are being evolved.

For Darwin, the "grandeur" of his evolutionary view of life meant the "longness" of time it had taken for species to evolve, and the "endless forms" of species that had come and gone. This "grandeur" became his dominant view of life, and, alongside it, his view of nature's blundering, waste, and horrible cruelty diminished. After 1856 he would continue to think about the "much suffering" that existed in the world[8]; as far as can be ascertained from his known writings, he would never again write an all powerful reprobation of life.

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Francis Bacon (1561–1626)

His interest and influence in education, science, and medicine

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> *The wise and lawful end of the sciences is that human life is enriched by new discoveries and powers.*
>
> *I have only taken upon me to ring a bell to call other wits together.*—**Francis Bacon**

Different societal structures and the changing material conditions associated with them give rise to their distinct ideas and views; they are the products of time and place, and of talented people.

In the last sixteenth and early seventeenth centuries, bourgeois capitalism in England superseded feudalism as the leading mode of production, and, with it, England experienced a tremendous impulsion forward. Bacon lived in England at this time, as did Shakespeare, Milton, Defoe, William Harvey, M.D., Sir Isaac Newton, John Locke, M.D., Francis Glisson, M.D., Christopher Wren, William Gilbert, M.D., Robert Boyle, Thomas Sydenham, M.D., Robert Hooke, and other men of renown. Together they forged an epoch in the history of civilization, arts, medicine, and the sciences. Bacon's role is the substance of this essay.

Man of wisdom

Bacon was many men. He was a profound thinker who contributed to the great intellectual movement of his time; hence, historically, he is highly esteemed as an intellectual.[1,2] He was a distinguished lawyer and statesman; he held the highest office in the realm (Lord Chancellor), and once remarked to his troubled sovereign: "The material cause of sedition is want and poverty," and, "rebellion of the belly were the worse." [3,4] He was a renowned philosopher of education, science, and medicine, and left his mark on all three[5-9]; because he was committed to monarchial absolutism under Elizabeth and James 1, Bacon has been described as an ambivalent product of the seventeenth century.[10,11]

Intellectual views

Bacon recognized that something new and different was happening in England. At the same time, he was aware that some of the dynamics of intellectual thought were still mired in the medieval theologic thought of Thomas Aquinas (1225 to 1274), and in the Renaissance belief that all wisdom stems from ancient Greece and Rome. Bacon rejected these barren systems of education; he urged abandonment of disputations and scholastic wrangling, sought to uproot mysticism inherited from feudalism, and declared that antiquity only prevents progress in science. He realized man must be properly and adequately educated to attain power over his destiny and to meet the needs of his time.[1,6,7,11-13]

Bacon's views and ideas on education were elucidated in "New Atlantis," a mythical, utopian society that offered freedom from ignorance and poverty, government patronage for scientific research, and careers that were open to all talents.[11,14]

Betterment of life

Bacon was not a scientist. He was, however, motivated by the conviction that alterations of human life on earth could be affected by application of science to the control of material environment, and that man's condition could be bettered by exploiting the inexhaustable wealth of nature and using it for the common good of all mankind. Bacon was a science propagandist; he sought to advance science by advocating organized methods of scientific experimental research, observation, inductive reasoning from accumulated facts, and experience. It was just such philosophy that overthrew vain and empty scholasticism and authoritarianism in the seventeenth century.[1,5-8,11,13,15]

Thoughtful aphorisms

Bacon expounded his ideas and thoughts on the philosophy of education, science, and medicine in the form of aphorisms of which the following are examples[6,7]:

> In thousands of years of man's history only a few discoveries had been made to benefit the condition of man, and those mainly by chance. The advance of science had been retarded because there was no sense experience nor inductive reasoning only argumentation.
>
> Cause in nature and its laws will be discovered by science in a continued process of discovery in a collaborative manner. Science develops in relation to other sciences and the combined knowledge solves problems. Science develops better as a planned activity of many men and, unlike Aristotle's verbosity, science should be expressed in simple, functional language.

The greatest obstacle to progress in science is that men think things impossible.

To be ignorant of causes is to be frustrated in action. Study the normal before considering deviations from it. Imagination as an instrument of discovery in nature is fruitless unless associated with facts. Arrogance and dogmatism inflict injury on learning and stifles inquiry.

Experimental research obviates repressive control of antiquity, rids man's mind of old errors and prejudices, and avoids the ill effects of mixing religion with science. The ultimate goal of experiment is the improvement of man's estimate.

Man can recover his state of innocence by religion and faith, and his power over nature by arts and sciences (a clear separation of religion and science so vital for the future advance of science). Religion is bent on saving souls, but improvement of human condition depends on science.

Academic progress

The university in the seventeenth century still had the characteristics of a medieval institution. The spirit of scientific research was not in the universities, but in the academies and societies; actually, the Royal Society owes its origin (1662) to Bacon's philosophy.[6] Scientific societies found their operational direction in his ideas on how to improve knowledge, free science from the fetters of antiquity and theology, and promote and cultivate theoretic science for practical knowledge essential to the needs of society.[16–18]

Bacon's conceptualization of "practical knowledge" is illustrated in his interpretation of the passage, "man shall earn his bread by the sweat of his brow." [19] He contended that it is not a cross borne because of original sin, but, rather, a means of work directed toward "useful knowledge." [19] It was just such simple mechanical reasoning from practical and useful knowledge as well as from animal experimentation that elucidated the problem of blood circulation by Dr. Harvey in 1628.[20]

Influence in medicine

Bacon's opinion that medicine should contribute to the improvement of man's estate was an integral part of his philosophy; it determined his interest and influence in medicine. He declared that medicine should aim to maintain health, to restore health, and to relieve suffering, not only as an aid to recovery, but to ease death. No disease should be thought incurable. Healing of the body, he stated, demands study of the body, knowledge of cause and treatment, attention to pathologic changes, and animal experimentation that need not bear fruit, but, instead, sheds light. Empirics are like ants, he warned; they collect and use, but know neither cause nor method of treatment. He emphasized the unity of mind and body, and that they should be studied in correlation. He disapproved of speculation, superstition, and charlantry.[5–7,9,15,21]

Bacon's philosophy influenced the thinking of many physicians, all with M.D. degrees: Thomas Sydenham (1624 to 1689), Hermann Boerhaave (1688 to 1730), John Pringle (1707 to 1782), Albrecht von Haller (1708 to 1777), Thomas Browne (1605 to 1682) whose "Religio Medici" (1642) proclaimed religious toleration, and Charles Darwin (1809 to 1882) who announced "I work in true Baconian principles and collect facts. . . ." [5,19]

Sydenham was a devoted Baconian; as did his mentor, he insisted on the primacy of clinical observation, reasoning, and exact recording, which, also, acclaimed him the "English Hippocrates." In his writings on hysteria, which in the seventeenth century had already shifted from the womb to the brain, Sydenham specifically relates hysteria to the whole person.[22,23]

Bacon's philosophy suffered abusive detractors under the short-lived "Restoration" (1660). Clergy and royalists denigrated his ideas and feared them as a threat to the establishment; and Henry Stubbe (1632 to 1676) ridiculed the "Bacon-faced generation" that discarded ancient learning for experimentation.[24,25] The motive forces of time and place, however, prevailed. It was a new socioeconomic (bourgeois capitalism) and political (parliamentarianism) England in the seventeenth century, and Bacon was one of a whole generation of geniuses who helped to increase man's control over nature. England needed what they had to give, and, in turn, honored progress in science.[1,26]

Bacon's life ended in a stranger's bed where he had found shelter on a cold, wintery night. There is no record of his funeral. He was out of favor with his monarch (1621), and forgotten by those he had loyally served. But Bacon rang "the bell that called the wits together," and its sound was heard and still lingers.

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Gonorrhea strikes many men without causing symptoms

Gonorrhea has leveled off in the United States at around one million cases a year, and has defied the best efforts of the medical community to overcome this common sexually transmitted disease.

A new medical approach to gonorrhea is reported in the February 13 Journal of the American Medical Association. Colorado physicians report on an effort to find and treat men who have gonorrhea but don't know it. The effort, in Colorado Springs and El Paso County, Colorado, had proved successful in curbing increases of the disease in the community, despite a large increase in population, says John J. Potterat of the El Paso County Health Department.

Control efforts of health authorities in the past have concentrated on treating men who develop symptoms of gonorrhea, plus seeking out their women partners for treatment. It has long been known that many women could be infected but have no symptoms. Only recently has medical science become aware that perhaps as many as 60 percent of infected men also have no symptoms, and can continue to infect their partners unless treated.

Traditional health education messages have made it difficult to convince men that they may have gonorrhea without symptoms, Potterat points out.

"The asymptomatic man has been a shadowy, almost invisible figure in gonorrhea control—an unsuspected and unsuspecting transmitter." Venereal disease program managers who concentrate on trying to reach all sexual partners, both men and women, of infected individuals can anticipate greater success in containing the disease," he says.

Symptoms of gonorrhea in the man are painful, burning urination and discharge of pus from the male organ. Untreated, the infection can last for years. It can result in various physical ills, including sterility. But men also can carry the infection without any of these symptoms.

In women the external genital organs usually are infected first. It can spread to other reproductive organs and is a frequent cause of sterility. There are many other complications of the untreated disease in both sexes.

Physicians now advise both men and women who have been exposed to gonorrhea through sexual contact to visit their physician or a clinic for tests, even if no symptoms have appeared. The "Silent Clap" is a truly large-scale health problem.

Obituaries

Jacob Aisenstat, M.D., of The Bronx, died on December 22 at the age of 82. Dr. Aisenstat received his medical degree from the University of Naples in 1924. He was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

George Hudson Batson, M.D., of Amityvile, died on July 27 in his 80th year. Dr. Batson graduated in 1926 from Howard University College of Medicine. He was an emeritus member of the medical staff at Unity Hospital. Dr. Batson was a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Kenneth Mead Clough, M.D., of Plattsburgh, died on October 5 at the age of 78. Dr. Clough graduated in 1926 from Cornell University Medical College. He was a staff surgeon at Champlain Valley Physicians Hospital Medical Center. Dr. Clough was a member of the Clinton County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Henry Dlugi, M.D., of New York City, died on February 7 at the age of 74. Dr. Dlugi received his medical degree from the University of Stefan Batorego, Poland, in 1931. He was an associate gynecologist and obstetrician at Metropolitan Hospital Center and an assistant obstetrician and gynecologist at Flower and Fifth Avenue Hospitals. Dr. Dlugi was a Diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Obstetricians and Gynecologists, a Fellow of the American College of Surgeons, a Fellow of the International College of Surgeons, and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph Engelmann, M.D., of New York City, died on August 29 at the age of 80. Dr. Engelmann received his medical degree from Elizabeth University, Hungary, in 1929. He was a member of the American Academy of Family Physicians, the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Helen J. G. Fabian, M.D., of Jackson Heights, died on January 2 at the age of 86. Dr. Fabian received her medical degree from the University of Konigsberg in 1922. She was a Diplomate of the American Board of Dermatology, Inc., and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

George F. Fahlberg, M.D., of New York City, died in April at the age of 76. Dr. Fahlberg received his medical degree from the University of Kiev in 1916. He was a member of the American Rheumatism Association, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Robert Glass, M.D., of New York City, died on February 26 at the age of 80. Dr. Glass received his medical degree from the University of Vienna in 1925. He was a Fellow of the American College of Chest Physicians and a member of the American Thoracic Society, the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Samuel Grosberg, M.D., of Key Biscayne, Florida, formerly of Suffern, died on November 11 at the age of 74. Dr. Grosberg graduated in 1931 from Tufts College Medical School. He was a Fellow of the American College of Allergists and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Arthur Everard Head, M.D., of Gouverneur, died on February 21 at the age of 73. Dr. Head graduated in 1933 from Syracuse University College of Medicine. He was an anesthesiologist at the Edward John Noble Hospital, Gouverneur, as well as an obstetrician and general practitioner there. Dr. Head was a member of the American Academy of Family Physicians, the St. Lawrence County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Kenneth George Jahraus, M.D., of Sun City, Arizona, formerly of Eggertsville, died on February 11 at the age of 75. Dr. Jahraus graduated in 1927 from the University of Buffalo School of Medicine. He was a Diplomate of the American Board of Anesthesiology, a Fellow of the American College of Anesthesiologists, and a member of the Buffalo Academy of Medicine, the Erie County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

James Kanski, Senior, M.D., of Amherst, died on March 2 in his 76th year. Dr. Kanski graduated in 1930 from the University of Buffalo School of Medicine. He was an honorary member of the medical staff at Mercy Hospital, Buffalo. Dr. Kanski was a Fellow of the International College of Surgeons and a member of the Buffalo Academy of Medicine, the Erie County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Peter J. Kesseler, M.D., of New York City, died on February 28 at the age of 85. Dr. Kesseler received his medical degree from the University of Wurzburg in 1920. He was a Fellow of the International College of Surgeons and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph Peter La Duca, M.D., of Grand Island, died on June 27, 1977, at the age of 84. Dr. La Duca graduated in

1917 from the University of Buffalo School of Medicine. He was a member of the Academy of Medicine, the Niagara County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Alva Gwin McCord, M.D., of Albany, died on March 3 in her 89th year. Dr. McCord graduated in 1922 from Women's Medical College of Pennsylvania. She was a member of the American Psychoanalytic Association, the American Psychiatric Association, the Albany County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Eleanor Martin, M.D., of New Rochelle, died on March 14 at the age of 77. Dr. Martin graduated in 1932 from Columbia University College of Physicians and Surgeons. She was a Fellow of the American College of Chest Physicians and a member of the American Thoracic Society, the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Morris Louis Messenger, M.D., of The Bronx, died on July 29 at the age of 83. Dr. Messenger graduated in 1921 from Fordham University School of Medicine. He was a member of the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Richard Earl Perkins, M.D., of New York City, died on February 2 at the age of 53. Dr. Perkins graduated in 1952 from Cornell University Medical College. He was an assistant physician at The New York Hospital and an attending physician at Manhattan Eye, Ear and Throat Hospital. Dr. Perkins was a member of the New York State Society of Internal Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Charles Aden Poindexter, M.D., of New York City, died on February 25 at the age of 77. Dr. Poindexter graduated in 1930 from Northwestern University Medical School. He was an attending physician at Bellevue and University Hospitals, a consulting cardiologist at Good Samaritan Hospital, Phelps Memorial Hospital Association, and Saint Francis Hospital (Port Jervis). Dr. Poindexter was a Diplomate of the American Board of Internal Medicine (Cardiology), a Fellow of the American College of Physicians, a Fellow of the American College of Cardiology, and a member of the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Charles A. Quinn, M.D., of Ilion, died on January 13 at the age of 78. Dr. Quinn graduated in 1927 from Queens University Faculty of Medicine. He was a member of the Herkimer County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Arthur Gilman Schwartz, M.D., of Rome, died on March 16 at the age of 71. Dr. Schwartz graduated in 1935 from McGill University Faculty of Medicine. He was an attending pediatrician at Rome Hospital and Murphy Memorial Hospital. Dr. Schwartz was a member of the Academy of Medicine, the Oneida County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Robert Schwinger, M.D., of Flushing, died on January 21 at the age of 65. Dr. Schwinger graudated in 1942 from St. Mary's Medical School, University of London. He was a Diplomate of the American Board of Internal Medicine and a Fellow of the American College of Physicians.

Abbey David Seley, M.D., of New York City, died on October 24 at the age of 73. Dr. Seley graduated in 1932 from Cornell University Medical College. She was an obstetrician and gynecologist at City Hospital Center at Elmhurst. Dr. Seley was a Diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Obstetricians and Gynecologists, a Fellow of the International College of Surgeons, and a member of the Endocrine Society, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Eleanor Hill Weed Sharp, M.D., of Ronkonkoma, died on February 15 at the age of 82. Dr. Sharp graduated in 1924 from Columbia University College of Physicians and Surgeons.

Harry Barney Silverman, M.D., of Cambria Heights, died on March 13 at the age of 71. Dr. Silverman graduated in 1935 from Anderson College of Medicine, Glasgow, Scotland. He was an honorary general practitioner at Jamaica Hospital and a staff general practitioner at Parkway Hospital. Dr. Silverman was a member of the American Geriatrics Society, the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Yaroslac Voyevidka, M.D., of New York City, Long Island City, and Astoria, died on January 25 at the age of 71. Dr. Voyevidka received his medical degree from the University of Cracow in 1933. He was a staff gynecologist at Astoria General Hospital. Dr. Voyevidka was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Jason La Rue Wiley, M.D., of Auburn, died on March 10 at the age of 69. Dr. Wiley graduated in 1912 from Syracuse University College of Medicine. He was an honorary member of the medical staff at Auburn Memorial Hospital. Dr. Wiley was a Diplomate of the American Board of Ophthalmology, a Fellow of the American College of Surgeons, and a member of the Cayuga County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Isadore Zadek, M.D., of Bronxville, died on February 19 at the age of 90. Dr. Zadek graduated in 1914 from Johns Hopkins University School of Medicine. He was a consulting orthopedic surgeon at the Hospital for Joint Diseases and Medical Center and at Mount Vernon Hospital. Dr. Zadek was a Diplomate of the American Board of Orthopedic Surgery, a Fellow of the American College of Surgeons, and a member of the American Academy of Orthopaedic Surgeons, the American Orthopaedic Association, the Westchester Academy of Medicine, the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

These corrections are set in a matching format to be cut out and pasted over the original entries in your Medical Directory.

Medical Directory Errata

Corrections of erroneous biographic material in the *Medical Directory of New York State* Volume LVII 1980–81 are listed below.

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★ **GARBER, Ella,** 360 First Ave. Manhattan. 10010. Tel 212-477-1325. CRACOW 48. D-OG. SL. FACOG. Asst O&G Beth Israel. Asst O&G St Vin. Asst O&G Cabrini Med Ctr. Attd O&G NY Inf-Beekman Dow. Attd-in-Chg Gyn NY Inf-Beekman Dow OPD.

★ **HABER, Jordan Lloyd,** 635 Belle Terre Rd. Port Jefferson. 11777. Tel 516-473-0013. St Louis 72. D-R. SD. Radiol NA. Prov Radiol Mather. Prov Radiol St Chas Pt Jeff.

★ **HELLER, David Robert,** Peekskill Community Hospital. Peekskill. 10566. Tel 914-737-9000. GENEVA 55. SJ. Dir Emerg Peekskill Com. Also Putnam Valley.
★ HELLER, David Robert, RD #3 Gardineer Rd. Tel 914-526-3766. See Peekskill.

★ **JAY, Harvey Herschel,** 45 E 62 St. Manhattan. 10021. Tel 212-755-2237. NYU 70. D-D. SH. Am Ac Derm. NYS Derm. Clin Affil Derm New York. Asst Adj Derm Lenox Hill.

★ **KING, Harry,** 516 Dogwood Ave. Franklin Square. 11010. Tel 516-481-3660. ILL 46. D-P. X. Am Ac Ped. Staff Ped LIJHMC. Staff Ped Nassau. Also West Hempstead.

★ **LIEBLER, William Amend,** 742 Park Ave. Manhattan. 10021. Tel 212-734-7477. NY MED 56. D-OS. SB. Am Ac Orth Surg. Ac Med. Attd Orth Sur Lenox Hill. Attd Orth Sur St Lukes.

★ **MELCHER JR, George W,** 326 W 42 St. Manhattan. 10036. Tel 212-760-6410. P&S NY 46. D-IM. SJ. Ac Med. Asso Attd Med Presby.

★ **MOSKOWITZ, Eugene,** 212 N Columbus Ave. Mount Vernon. 10552. Tel 914-667-4189. BASEL 37. D-PM. SM-1. Am Ac PMR. Dir PM&R Lawrence. Phy PM&R Met. Cons PM&R Mt Vernon. Cons PM&R St Agnes. Dir PM&R Westch Co Med Cent.

★ **MUNION. Lucille M,** 1140 Franklin Ave. Garden City. 11530. Tel 516-248-6116. STATE UNIV BKLN 49. D-O. SE. Am Ac Oph. PAAO. Ac Med. Asso Oph Sur Nassau Co Med Ctr. Attd Oph Nassau. Attd Oph Hall.

★ **NEGRIN JR, Juan,** 108 E 81 St. Manhattan. 10028. Tel 212-288-6928. BARCELONA 38. D-NS. SM-9. FACS. FICS. Am Neur Sur. Am Neuropath. Re Ner & Ment Dis. Ac Med. NY Neur. NY Neurosur. Attd Neurosur Lenox Hill. Attd Neurosur Man EE&T. Attd Neurosur NY E&E Inf. Dir & Attd Neurosur Flushing. Attd Neurosur Met.

★ **NOLAN, Richard B,** 170 William St. Manhattan. 10038. Tel 212-233-5300. NYU 45. D-S. D-TS. SAC. FACS. NY Cv Sur. NY Thor Sur. NY Sur. Cons Cardiovas Sur NY E&E Inf. Cons Cardiovas Sur St Agnes. Asso Chief Sur NY Inf-Beekman Dow.

★ **REIFFEL, Robert Siskind,** 170 Maple Ave. White Plains. 10601. Tel 914-997-9600. P&S NY 72. D-S. SA. Attd Sur White Plains. Attd Sur St Agnes. Attd Sur Westch Co Med Cent.

★ **RIZZUTI, Raymond Alan,** 160 Henry St. Brooklyn. 11201. Tel 212-625-4443. BOLOGNA 72. E. Asst Adj Oph Sur NY E&E Inf. Asst Oph Sur Luth Med. Asst Oph Sur LIC. Asst Oph Sur Cath Med Ctr.

ROME, Doris L Spector, 736 Madison Ave. Manhattan. 10025. Tel 212-462-1107. ALBANY 50. D-PA. FCAP. Am Clin Path. Intl Ac Path. Attd Path Albany Med Ctr.

★ **ROSENBLATT, Jacob,** 820 West End Ave. Manhattan. 10025. Tel 212-222-1374. Vienna 24. XJ.

★ **ROTH, Nathan,** 254 E 68 St. Manhattan. 10021. Tel 212-988-4227. UNIV TORONTO 34. D-PN. SI. Am Ac Neur. Am Psych. Am Ac Psychoan. Am Ger. Ac Med. Asso Psych Met. Asso Neuropsych Bell. Dir Psych NY Inf-Beekman Dow. Attd Psych Cabrini Med Ctr.

★ **SCHOTTENFELD, Aaron,** 70 Central Park W. Manhattan. 10023. Tel 212-877-5900. NYU 43. D-IM. SJ. Phy Monte.

★ **SHAPERO, Edward Benjamin,** 108 E 38 St. Manhattan. 10016. Tel 212-679-3016. NY MED 36. D-S. SAC. Ac Med. Attd Sur Cabrini Med Ctr. Attd Sur NY Inf-Beekman Dow. Chief Ca Detect Strang Clinic.

★ **WEISER, Frank Morton,** 715 Park Ave. Manhattan. 10021. Tel 212-288-5468. HARVARD 57. D-IM. SJ. FACP. FCCP. FACC. Am Ger. Ac Med. NY Cardiol. NYS Int Med. Asst Attd Cardiol Mt Sinai. Asso Attd Med Cabrini Med Ctr. Attd Int Med Gracie Sq.

In addition, the ★ indicating membership in the Medical Society of the State of New York was omitted inadvertently from the listings in the Directory for the following physicians all of whom are currently members in good standing of their county medical society and the Medical Society of the State of New York.

ARONSON, Wendy S.
BATES, Edgar Hodgins
CORBIN, Leon John
de ARMAS, Raul
DORFMAN, Milton
DREYFUS, Eric M.
ERRICO, Michael John
FARQUHAR, Hal A.
FEUCHTWANGER, Klaus
FULMER JR., George T.
GOLDBERG, Myron
GRISAFI, Patrick A.
HART, George C.
ISMAIL, Muhammad
JALECO, Concepcion J.
LEVINE, Joel Irwin
LEHV, Saul
MASON, Percy
MILLER, JR, John M.
NESHAMKIN, Oliver M.
ROSS, Steven I.
RUVOLO, Charles A.
SCHREIBER, David
SMOLLER, Howard
STEINHAUFF, Norman
TERSHAKOVEC, Andrew N.
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ZINNER, Elmer N.

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Medical Meetings

Continuing education in oncology

The continuing education programs in oncology at Roswell Park Memorial Institute for 1981 to 1982 are: Thursday, September 17—"Membrane Receptors"; Thursday and Friday, October 1 to 2—"Nutrition and Cancer"; Thursday, November 5—"Controversies in the Management of Thyroid Cancer"; Thursday, February 11—"Soft Tissue Tumors"; Thursday, March 4—"What's New in Urologic Oncology"; Thursday, April 1—"Tumors Involving the Skin"; Thursday, May 6—"Controversies in the Management of Childhood and Adolescent Cancer"; and June 5—"Cancer of the Colon-Rectum."

These seminars qualify for Category I credit toward the A.M.A. Physician's Recognition Award, prescribed credit by the American Academy of Family Physicians, and Category 2-D by the American Osteopathic Association.

The seminars are co-sponsored by the Cancer Control Program of the Roswell Park Memorial Institute and the American Cancer Society, New York State Division and Erie County Unit.

Inquiries should be sent to: Gayle Bersani, R.N., Cancer Control Coordinator, Roswell Park Memorial Institute, 666 Elm Street, Buffalo, New York 14263; telephone (716) 845-4406.

Body imaging conference

The Sixth Annual International Body Imaging Conference will be held October 10 to 18 at the Hyatt Regency Hotel, Maui, Hawaii. The formal conference sessions will be October 11 to 15.

Conference registration is limited.

For information: Conference Coordinator, Sixth Annual Body Imaging Conference, Department of Radiology, West Park Hospital, 22141 Roscoe Blvd., Canoga Park, California 91304 U.S.A.

Symposium scheduled on diet and exercise

A symposium on "Diet and Exercise: Synergism in Health Maintenance" will be held on November 3–4, in Lake Buena Vista, Florida. (Walt Disney World Complex).

The Symposium will be sponsored by the Department of Foods and Nutrition, American Medical Association, in conjunction with the AMA's Council on Scientific Affairs and Council on Continuing Physician Education, and the Florida Medical Association.

The Symposium will focus on the role of nutrition *and* exercise in the promotion of health and the treatment of major health problems. Emphasis will be on the physiologic effects of moderate, habitual activity coupled with sound nutrition practices, that is, the role of nutrition and exercise in health maintenance and in the treatment of some of our chronic degenerative disease states.

For further information, contact: Department of Foods

Material for inclusion in the medical meetings must be received eight weeks prior to publication date.

and Nutrition, American Medical Association, 535 N. Dearborn St., Chicago, IL 60610.

Neurosurgery/New York City controversies, complications, and surgical techniques

A program on neurosurgery—controversies, complications, and surgical techniques will be offered by the Departments of Neurosurgery at Albert Einstein College of Medicine at Yeshiva University, Columbia University College of Physicians and Surgeons, Cornell University Medical College, Mount Sinai School of Medicine of the City University of New York, New York Medical College, New York University School of Medicine and Post-Graduate Medical School, and SUNY Downstate Medical Center College of Medicine, at the Grand Hyatt Hotel, New York City, December 7 to 10.

For further information or course brochure write or call: New York University Post-Graduate Medical School, 550 First Avenue, New York, New York 10016; telephone: (212) 340-5295 (24-hour telephone service).

An international medical meeting

The "Third World Congress for Bronchology" will be held in San Diego, California, March 4 to 6. The Congress is sponsored by the World Association for Bronchology and the American College of Chest Physicians.

For further information write to: Department of Education, American College of Chest Physicians, 911 Busse Highway, Park Ridge, Illinois 60068.

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physicians on Blue Shield boards does not produce higher fees. He said the staff recommendation was in part a "complete reversal" of previous findings.

Acting FTC Chairman David Clanton said the new analysis "suggests that some previously suspected relationships do not hold, but the study still shows a troublesome relationship between medical society involvement on Blue Shield boards and fee levels for several expensive medical procedures."

Clanton said the FTC should proceed selectively "using a rule of reason approach" that takes into account the share of the market possessed by a plan, the degree of physician participation in fee setting, and the plan's coverage.

* * *

The Administration has sent Congress legislation phasing out federal financial support for HMOs (Health Maintenance Organizations).

The bill will "help ensure that health maintenance organizations and other modes of health delivery face a fair test in the marketplace," said Richard Schweiker, Secretary of the Health and Human Services (HHS) Department, in a letter of transmittal.

Schweiker said the federal aid has given HMOs "an advantage over other forms of health delivery."

The bill eliminates certain federal restrictions on HMOs "that have inhibited their ability to compete successfully," Schweiker said. The bill authorizes appropriations of $1 million for the next three fiscal years for HMO training and technical assistance and $35 million yearly for the HMO loan fund.

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earlier control measures can be implemented quickly. The system includes:

- Active surveillance for four immunizable diseases: rubeola, rubella, mumps, and pertussis.
- Weekly telephone calls to approximately 60 participating sentinel pediatricians.
- Selection of these sentinel physicians from a 50 percent random sampling of primary care pediatricians (stratified for previous history of disease reporting, geographical location, and whether in single or group practice).
- An intensive followup of all reported measles cases.

An evaluation process will document whether the system actually increases case reporting and decreases the time interval from disease onset to County Health Department notification. This will be done by:

- Comparing number of case reports between the sentinel and nonparticipating pediatricians.
- Comparing the reporting intervals—the time lag in reports after onset date—for sentinel group, the remaining 50 percent of pediatricians, other physicians, and the existing school surveillance system.

Four years ago, the Department developed a School Reporting System for all communicable diseases, with the cooperation of the 56 local school districts and the BOCES (board of cooperative educational services). Monthly, school nurses in each building provide written reports of cases occurring in children 5 to 18 years of age to this Department's Bureau of Epidemiology. In addition, eight school districts mail daily absence figures during the influenza season as part of the Bureau's surveillance.

As an example of the extent of this system, in 1979 there were 5,871 cases of chickenpox reported by the schools. This represents about 50 percent of the total number of actual cases in 1979 in the county. As a result of the success of the school program, the Department expects to incorporate children from 3 to 5 years of age in nursery schools, day care centers, and the Head Start schools.

In contrast, and despite a wide variety of methods and efforts over many years, approximately 50 of the more than 1,000 primary care physicians in the county report one communicable disease case during a calendar year. About 25 report two to nine cases of these diseases; another eight physicians report more than 10 to 39 cases. In 1979, these physicians reported 293 communicable disease cases—222 chickenpox and 12 of measles.

The new pilot, physician-focused surveillance system will continue for one year.

U.S. physician population continues steady increase

There were 454,564 physicians in the United States and possessions as of December 31, 1979, the American Medical Association reported.

This is an increase of 17,078 over the previous year.

The physician population data is a part of the annual AMA publication, Physician Distribution and Medical Licensure in the U.S., 1979, now available.

There were 356,783 physicians in direct patient care on December 31, 1979. Of those in direct patient care, 70 percent pursued an office-based practice (249,585) with the remaining 30 percent in a hospital-based practice, the AMA book reported.

By specialty, physicians in 1979 were concentrated in internal medicine (68,591), general and family practice (58,130), general surgery (33,217), psychiatry (26,860), pediatrics (26,696), and obstetrics-gynecology (25,215).

Thirty-nine percent of all physicians (178,632) were in a primary care specialty.

As of December 31, 1979, there were 96,605 foreign medical graduate physicians in the U.S. and possessions.

The role of women in medicine has expanded and promises to continue to grow in the future. In 1963 only six percent of all physicians were women; by 1979 the figure was 11 percent. There were 50,604 women physicians as of December 31, 1979.

The volume may be ordered from: Order Department (OP 300), American Medical Association, P.O. Box 821, Monroe, Wis. 53566.

ACP publishes diagnostic test manual

Continuing its commitment to physicians' ongoing medical education, the American College of Physicians (ACP) announces the April 1, 1981, publication of a guide to the effective use of diagnostic tests—the first such handbook developed for the medical community.

Titled "Selection and Interpretation of Diagnostic Tests and Procedures: Principles and Application," the guide is an educational tool designed to help physicians select tests and therapeutic procedures in a cost-effective manner and interpret results more efficiently. The manual appeared as a supplement to the April issue of the *Annals of Internal Medicine*, the ACP's official journal.

Publication of the supplement concludes two years' study by an ACP team under the direction of Paul F. Griner, M.D., F.A.C.P., professor and associate chairman, director of clinical services and head, general medicine unit at the University of Rochester School of Medicine and Dentistry in Rochester, New York.

Research for the guide was sponsored by a $30,300 grant from the NFME (National Fund for Medical Education). The NFME is a public foundation chartered by Congress to mobilize voluntary support for medical education. Since its founding in 1949, the Fund has awarded over $53 million to medical schools, societies, and consortia.

Publication of the supplement is being made possible through grants of $15,000 each from the Commonwealth Fund and The Henry J. Kaiser Family Foundation.

The Commonwealth Fund, established in 1918, appropriated approximately $5 million in 1980 for medical education and health programs. The Kaiser Family Foundation directs the majority of its resources to projects in health and medical care.

Copies of the ACP's guide may be obtained at cost by writing the College's Department of Health and Public Policy, 4200 Pine Street, Philadelphia, PA 19104, or calling (800) 523-1546 or (215) 243-1200.

Teenage gonorrhea continues upswing: incidence up third consecutive year

Infectious gonorrhea continued to spread among greater numbers of New York City teenagers in 1980, marking the third consecutive year that reported incidence of the sexually transmitted disease has shown an increase in the city's youth, Health Commissioner Reinaldo A. Ferrer, M.D., disclosed in March.

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Office Management of Common Medical Problems

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Attention: General Internists, Family Practitioners, Emergency Room and Primary Care Physicians. Combine your CME course with a family education/vacation at our third annual summer program in Ithaca, N.Y.

Program: Specialists from the Guthrie Clinic and faculty from other major medical centers will discuss their approach to office diagnosis and treatment of common medical problems. Morning sessions of formal lectures and discussions. Afternoons free for relaxation and recreation. Optional evening workshops. The program will include selected topics in Endocrinology, Cardiology, Neurology, Psychiatry, Gastroenterology, Urology, and Oncology.

Spouse Courses: Siren of the Sea, Chamber Music for String Ensembles, The Home Green House, International Cuisine, India, Jewish Literature; presented by Cornell Adult University.

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No federal assistance would be provided for starting up any new HMO.

Other provisions of the bill would:

- Remove mental health and substance abuse services from the list of required services and make them optional.
- Repeal current limitations as to HMOs contracting with individual physicians for the provision of health services and clairfy what percentage of services could be contracted by an HMO.

Earlier, the AMA had told the Congress that now is the time to end federal aid for HMOs.

"What has envisioned in 1973 as a justifiable manipulation of marketplace forces to foster the development of HMOs now is perceived as undue interference with matters of choice best left to the consumer," the AMA said in a statement to the House Commerce Subcommittee on Health.

The growth of any one form of health care delivery—prepaid plans, fee-for-service, and so forth—should not be determined by federal subsidies, by preferential treatment under law, or by federally-financed advertising campaigns, the AMA said. Rather, the decision should be made by popular choice in a free competitive system. "Government neutrality is essential to maintain a pluralistic system for consumer choice."

The HMO act has now served its purpose, according to the AMA which has thrown its support to the Administration's plan to withdraw funds for startups of new HMOs and the termination of funds for other HMOs after completion of the current funding cycle.

The AMA said that experience has shown that the HMO program "has not been entirely successful in developing qualified HMOs and the fact remains that the vast majority of individuals who are enrolled in prepaid group practices—HMOs—are enrolled in plans that do not receive federal assistance."

The AMA pointed out that the HMO loan fund which has provided $128 million to HMOs since 1973 is now in a deficit position because 11 HMOs have gone bankrupt. Another 38 plans are experiencing financial problems, raising the total to more than one fifth of federally-qualified HMOs that are in trouble.

* * *

The AMA has backed reauthorization and continued funding for the National Centers for Health Statistics and Health Services Research.

In a statement to the Senate Labor and Human Resources Committee, the AMA said it "has been particularly impressed with the work of the National Center for Health Statistics and the ready cooperation received by medical professionals and medical groups seeking the assistance of Center personnel."

For the most part the National Center for Health Services Research has equally served the private sector, said James Sammons, M.D., AMA Executive Vice President.

The gathering of data on health care services and the

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Teenage gonorrhea jumped 6.9 percent, totaling almost 7,000 new cases. This outpaced the overall increase in gonorrhea, 4.8 percent, as total reported cases rose from 41,698 in 1979, to 43,699 in 1980.

Females in this age group accounted for the majority of the percentage increase, totaling 3,398 new cases, or a 7.7 percent increase from 1979. Male teenagers contracted 3,520 additional cases of gonorrhea, registering an increase of 6.1 percent.

"These statistics are very disturbing," Commissioner Ferrer said. "It is true venereal disease has lost much of the hysteria associated with its contraction. However, the disease can be physically debilitating if unchecked, and its psychological effect on young people continues to be troubling.

"The Health Department continues to provide free medical care to teenagers and others through its local health clinics," Commissioner Ferrer added, "but unless there is a concerted effort to educate our teenagers on both the prevention and treatment of gonorrhea and other sexually transmitted diseases, the affliction will continue its infectious swing through our young adults."

Commissioner Ferrer reported that all types of venereal disease showed an overall increase in 1980, climbing 7.1 percent, or 78,987 new cases, as compared to the previous year's 73,734 incidences.

Sexually transmitted diseases with the largest increases were pelvic inflammatory disease, 35.3 percent; herpes simplex, 31.2 percent; trichomoniasis, 31 percent; scabies, 28.4 percent; genital warts, 23.5 percent; candidiasis, 25.3 percent; nongonococcal urethritis, 13.5 percent; and pubic lice, 9 percent.

Infectious syphilis, with 5,906 new cases reported, dropped 11.9 percent from 1979. Dr. Ferrer noted that "the improving statistics of the disease, for which the greatest control efforts were mounted, demonstrates that a serious educational program and control effort can reduce the incidence of veneral disease."

Yehudi M. Felman, M.D., Director of the Bureau of Venereal Disease Control, stated, "additional success in the Bureau's attempt to control venereal disease is attributable to the increased training of its clinicians in the district health clinics. A greater number of asymptomatic women with gonorrhea are being diagnosed and treated, thus interrupting the transmission of the disease," he said.

Director Felman also cited the increased early diagnosis of gonococcal pelvic inflammatory disease as a result of intensive and improved screening by the Bureau's medical professionals. If treated early, the disease is completely curable through medication, avoiding the expense and trauma of hospitalization and surgery.

Familial ovarian cancer registry

There are increasing reports of ovarian cancer occurring in two (2) or more family members. The Familial Ovarian Cancer Registry will evaluate this increase to obtain information for genetic counseling to family members. Case accrual will evaluate:

- the number of cases of familial ovarian cancer
- the type of inheritance
- the relationship to breast and endometrial carcinoma
- the study of environmental, geographical, and racial factors
- genetic counseling.

Please address inquiries regarding the clinical history of any family with two (2) or more members with ovarian cancer to: Familial Ovarian Cancer Registry, M. Steven Piver, M.D., Roswell Park Memorial Institute, New York State Department of Health, 666 Elm Street, Buffalo, New York 14263; telephone: (716) 845-3110.

Here and there

Appointments: Sandor Wax, M.D., appointed professor of clinical urology; Jacques Wallach, M.D., appointed clinical professor of pathology; Charles I. Feigelson, M.D., appointed associate professor of psychiatry; Herbert Wieder, M.D., appointed clinical associate professor of psychiatry—at Downstate Medical Center State University of New York at Brooklyn.

Awarded: Leon C. Chesley, M.D., professor emeritus of obstetrics and gynecology, Downstate Medical Center State University of New York at Brooklyn, is the recipient of the 1981 Joseph Bolivar DeLee Humanitarian Award. The DeLee Award was established in 1976 by the Board of Directors of the Chicago Lying-in Hospital and is awarded for outstanding service in women's and infant's health care.

Elected: Stephen S. Scheidt, M.D., F.A.C.C., New York City, has been elected to a three-year term on the Board of Governors of the American College of Cardiology. Dr. Scheidt will serve the Metropolitan New York area.

Promoted: Judith J. Woodruff, M.D., has been promoted professor of pathology; Gilbert J. Wise, M.D., has been promoted to clinical professor of urology; and Felix Feraru, M.D., and Robert Lerner, M.D., have been appointed clinical associate professors of surgery—at Downstate Medical Center State University of New York at Brooklyn.

1982
ANNUAL CME ASSEMBLY

Medical Society of the State of New York

JUNE 25–27, 1982

Rye Town Hilton, Port Chester, New York

Scientific Program

Any State Society member who wishes to present a paper before a scientific section or a general session is requested to write to Stephen Nordlicht, M.D., Chairman of Scientific Program Committee at the address given below.

A short abstract of the proposed presentation should accompany the letter

DEADLINE: August 31, 1981.

Scientific Exhibits

Requests for scientific exhibit space should be addressed to Thomas S. Bumbalo, M.D., Chairman, Scientific Exhibits Subcommittee at the address given below.

DEADLINE: March 1, 1982

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ASCORBIC ACID AND IRON NUTRITION

Sean R. Lynch, M.D.
Department of Medicine
University of Kansas Medical Center
Kansas City, Kansas 66103

Iron is an essential element that plays a vital role in oxygen transport as well as many other metabolic processes. The body of the average man contains about 4 g of iron, 3 g of which is in functionally active compounds; the remainder constitutes the iron store.[1] The major portion of the functional iron is present in the porphyrin complexes of hemoglobin and myoglobin as well as in a variety of heme-containing enzymes. Since iron is carefully conserved and reutilized in the body, the physiological requirement is small. Men need only about 1 mg/day to replace obligatory losses. Women require approximately 1.5 mg/day because of the additional iron losses in menstrual blood and the demands of childbearing and lactation. Despite the relatively small requirement for iron, which is far less than the amount present in the daily diet, nutritional iron deficiency is prevalent throughout the world. This is a consequence of the inefficient absorption of much of the food iron.

Dietary Iron

The varied diet of human beings contains many different forms of iron. Therefore, when considering iron absorption, it is convenient to divide the dietary iron compounds into two classes, those containing heme iron and those containing all other types of iron (nonheme iron). Iron derived from the heme moiety of hemoglobin and myoglobin is found in animal products and it is readily available for absorption while the bioavailability of nonheme iron is much less favorable. For example, in one study Swedish soldiers eating a mixed diet absorbed an average of 34% (0.34 mg) of the 1 mg of heme iron, but only 5% (0.82 mg) of the 16.4 mg of nonheme iron present in their meal.[2] Therefore, they derived 1/3 of their requirements from the heme pool which represented only 6% of the total dietary iron. Meat probably provided man, the hunter, with a very adequate supply of iron. However, as man evolved into a tiller of soil, his meat intake decreased and other less accessible sources of iron became more important. The declining availability of meat and its virtual absence in the diets of many people in developing countries has focused the attention of nutritionists on the less readily available nonheme component of dietary iron.

Nonheme Iron Absorption

Heme iron is absorbed as the iron porphyrin complex and its availability is little affected by meal composition.[1] In contrast, nonheme iron must be released from the parent compound before it can be absorbed. Early studies of nonheme food iron absorption were carried out by using single foods which had been labeled biosynthetically with radioiron.[1] The amount of iron absorbed from different vegetables varied considerably, but depended more on iron availability than on the absolute amount of iron in the particular item. Further investigation demonstrated that availability from any particular food could be altered substantially when it was eaten in a composite meal containing one or more additional foods. For example, soybean iron was much better absorbed than blackbean iron if each was eaten separately, but the percentage absorption from each bean source was approximately equal when they were eaten together.[3] Studies like these have demonstrated that nonheme iron absorption appears to be a property of overall meal composition rather than of the specific food containing the iron.

These observations have led to the conclusion that when several foods are eaten together, nonheme iron destined for absorption behaves as though it is derived from a single common pool.[4,5] This pool comprises vegetable iron, nonheme iron in meat and any soluble inorganic iron salts which may be present in or added to the meal. Since lack of iron is more often the result of poor availability than of inadequate iron intake, an understanding of the dietary components that affect the absorption of nonheme iron is of critical importance to nutritionists.

Ascorbic Acid and Nonheme Iron Absorption

Many chemical ligands in food are known to be powerful inhibitors of absorption. These include carbonates, oxalates, phosphates, fiber components and tannates. Other ligands, such as ascorbic acid, citric acid, tricarboxylic acid, amino acids, meat protein and sugars, promote its absorption.[1] The two factors with the greatest enhancing influence are meat and ascorbic acid.[6] Meat protein improves iron absorption in two ways: first, by providing heme iron and secondly, by enhancing the absorption of nonheme iron in the meal.

However, the properties of ascorbic acid have received most attention since the ascorbic acid content of the diet is more easily modified than is the meat content. Initial evidence suggesting that ascorbic acid would enhance iron absorption from food was obtained in meals eaten with and without citrus fruits. A glass of orange juice containing 50-70 mg ascorbic acid produces approximately a three-fold increase in the nonheme iron absorption from a breakfast meal.[8] The observations with fruit have been amplified by a series of investigations in which the effect of purified ascorbic acid was examined in detail.[7] These studies demonstrated that ascorbic acid exerts an equal influence on all the nonheme iron elements of a meal and therefore appears to act as a ligand for the common nonheme iron pool.[7] The enhancing effect of ascorbic acid is directly proportional to the quantity added to the meal.[6] Moreover, it has been shown to reverse the inhibitory effect of substances such as tea, calcium and phosphate, the degree of reversal of inhibition being directly proportional to the quantity of ascorbic acid in the meal.[6,9] Iron absorption in the presence of ascorbic acid and an inhibitor, such as tea, may therefore exceed the absorption of the basal meal containing neither.

The effect of ascorbic acid depends upon its presence in the meal and is unrelated to the ascorbic acid status of the individual. For example, 500 mg ascorbic acid taken even 4 hours prior to a meal has little effect on iron absorption.[6] Cooking also may alter the influence of ascorbic acid After baking, virtually no enhancement of iron absorption is seen When food is boiled, much of the activity is retained [10]

Ascorbic acid appears to act by increasing the solubility of the nonheme iron at the alkaline pH of the duodenum Food iron exists predominantly in the ferric form In an aqueous solution, ferric ions are bound to each other through water bridges Since increases in pH make more hydroxyl ions available, metallic polymers or precipitated metallic hydroxides are formed and iron becomes unavailable to the mucosal cell If ascorbic acid is added to a ferric chloride solution at acid pH, hydrogen ions are displaced from ascorbate with the formation of a complex that remains in solution over a pH range of 2-11 [11] Therefore, in the presence of ascorbic acid, ferric iron remains soluble and available for absorption at the alkaline pH in the duodenum

Iron and Ascorbic Acid Supplementation

Attempts to improve iron nutrition in some populations at risk for iron deficiency by the addition of a soluble iron salt to one of the food components may not be effective As indicated above, added iron enters the nonheme iron pool in the meal and tends to be relatively unavailable for absorption in diets which consist predominantly of cereals, such as wheat, corn and rice Although these grains contain iron, they actually are considered poor dietary sources Such diets are most common among vegetarians and people in less developed countries For these groups, improvement in iron status may only be possible if the availability of the nonheme pool is increased and the addition of ascorbic acid to the meal is one possible means of achieving this end However, in lesser developed countries where the problem of anemia is most severe, the relatively high cost of synthetic ascorbic acid and its instability during prolonged food storage and cooking have proven to be major obstacles to its use in fortification programs designed to prevent nutritional iron deficiency Foods high in ascorbic acid are often grown in the lesser developed countries Consideration should be given to educating the people to use foods high in ascorbic acid in the same meals as grains

One further implication of the effect of ascorbic acid on iron absorption merits consideration While ascorbic acid is important in making iron available for absorption in people who are iron deficient, large quantities of ascorbic acid could lead to excessive iron absorption This possibility, even if remote, deserves our attention since iron overload results in organ damage and morbidity which is at least as severe or perhaps more severe than that seen in iron deficiency

Present knowledge of iron overload indicates that the occurrence in the U S is relatively rare Most cases occur in individuals who are genetically predisposed to overabsorption of dietary iron However, the long-term effects of megadose quantities of ascorbic acid on dietary iron absorption in man are not known, although it has been predicted that people eating 1-2 g each day might increase their iron absorption two to three-fold [8] If this rate of absorption were maintained over a period of 10 years, severe iron overload could be the consequence To date, there is no evidence that this does in fact occur and it is possible that adaptive mechanisms would come into play, reducing the rate of iron absorption

Summary

Iron deficiency anemia is prevalent throughout the world because of the inefficient absorption of nonheme iron which forms the bulk of the iron in the diet Absorption of this type of iron is impaired by substances in food which reduce its availability Ascorbic acid reverses the effect of dietary inhibitors and is one of the most powerful known promoters of nonheme iron absorption It facilitates iron absorption by forming a chelate with the ferric iron in food at the acid pH of the stomach, the chelated iron remains soluble at the alkaline pH of the duodenum. However, the consumption of ascorbic acid with a vegetarian meal containing primarily nonheme iron could improve the absorption of iron for an individual whose diet contains little or no heme iron. Unfortunately, relatively high cost and instability of ascorbic acid during food storage have proven to be major obstacles to its use in combating nutritional iron deficiency in developing countries.

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continued from page 1129

research into delivery of medical and other health care are making valuable contributions to those governmental and nongovernmental parties who are determined to make informed policy choices. "We urge that these centers continue to receive adequate federal funding."

The AMA also recommended against development of the Cooperative Health Statistics System, saying that the obstacles to the creation of the system and the costs it would entail "militate against its satisfactory completion."

* * *

The AMA has recommended to the Congress that the National Center for Health Care Technology be eliminated.

Fred C. Rainey, M.D., a member of the AMA's Council on Legislation, told the Senate Labor and Human Resources Committee that the AMA opposed reauthorization of the center "not out of lack of concern for the safety, efficacy, and cost-effectiveness of medical care, but because the relevant clinical policy analysis and judgments are better made, and are being responsibly made, within the medical profession."

Noting that the law creating the center gave the HHS Secretary the authority to regulate the dissemination of medical information, Dr. Rainey said a centralized government authority could not supplant the current system of assessment by researchers, medical school faculties, and physicians and biomedical scientists in public and private institutes, hospitals, and other institutions.

"This is especially so," he said, "when the mandate of such an authority is essentially to facilitate the achievement of economic, not health goals; to make definitive reimbursement recommendations that cannot begin fairly to reflect the complex and changing circumstances that a physician, patient, and a local community must deal with."

Dr. Rainey emphasized the AMA's long history of actively assisting the individual physician in assessing new medical technology and integrating it into medical practice.

He said the AMA was committed to assuring that medical education and practice are rooted on a scientific base, and to raising practitioners' cost-consciousness about all the aspects of medical care. He pointed out that AMA publications played a central role in disseminating medical information.

* * *

The Food and Drug Administration's pilot program for PPIs (patient package inserts) for drugs has been slowed and may be halted.

New FDA Commissioner Arthur Hayes, M.D., "will conduct a complete review of ways to provide health and safety information to consumers about drugs," said HHS Department Secretary Richard Schweiker. The May 25 and July 2 effective dates of the pilot program will be postponed.

The FDA review will consider alternative means of providing needed information to patients about drugs, the cost effectiveness of the PPI approach, and whether the pilot program is appropriately constructed to produce reliable information on the effectiveness of PPIs.

The program requires inserts for cimetidine, clofibrate, propoxyphene, ampicillin and phenytoin. Current PPIs for oral contraceptives, estrogens, and progestins are not affected.

* * *

An abrupt halt to capitation aid would force medical schools to retrench some of their essential programs, the AMA has told Congress.

Urging the lawmakers to phase-out gradually the federal program of general institutional support, the AMA said this assistance "has served the public interest by aiding and improving the quality and availability of medical education and medical care. While the amount that an institution can receive under this program is not great, these funds are flexible and enable medical faculties to focus their use on their institutions' needs and the needs of the community."

The AMA statement was submitted to the Senate Labor and Human Resources Committee which is considering legislation to extend health manpower legislation. The Administration wants to cut back on aid and to terminate the capitation program. The Senate and House last year approved different bills and could not agree to compromise legislation before session's end.

In a letter accompanying the AMA statement, James Sammons, M.D., AMA Executive Vice President, said the issues under consideration "are of vital importance as they will affect the future of health care delivery in the United States." Dr. Sammon said "the resources for qualified students to obtain a medical education and the ability of institutions to offer a quality educational program will direct how health care is delivered for many years to come."

A phase-out of capitation aid would allow "those institutions that rely on these monies time to develop other sources of funds while continuing without the substantial disruption that would be caused by the total elimination of the program," the AMA told the committee.

Student assistance must be of the highest priority for government action, the AMA said. "Access to medical education must not be allowed to become limited on the basis of income."

A strengthened program of guaranteed loans was urged by the Association as well as continued federal assistance to programs of basic nurse training.

* * *

The Administration's Task Force on Regulatory Relief has singled out three health regulations for priority review as to whether modification is necessary to make them less burdensome.

They are:

- New Drug Applications—Delays in the existing process of approving new drugs by the Food and Drug Administration "justifies a thorough review."
- Medicaid Regulations—States contend that these regs hamper their ability to provide services to needy people at reasonable funding levels, according to the Task Force.
- Health Care Institution Certification and Surveys—Hospitals, nursing homes and other institutional providers "are subject to myriad, frequent and duplicative surveys and reviews."

Vice President George Bush, Chairman of the Task Force, urged the public to notify his agency of rules and regulations that people find onerous and unnecessary.

* * *

The private sector has made a great step forward in restraining medical care costs in the face of double-digit inflation, a nationwide television audience was told by James Sammons, M.D., AMA Executive Vice President.

Appearing on the program "It's Your Business" produced by the Chamber of Commerce of the United States, Dr. Sammons said inflation, government spending, government regulations, increased demand, new technology "all cause increasing costs."

"Let's all be realistic," he said. "Everybody can work very, very hard at trying to control these costs—but as long as inflation is running wild, as long as energy costs are going up steadily in a markedly energy-intensive industry, in a heavy labor-intensive industry—there is no way you're going to be able to put a lid on costs and maintain quality and maintain quantity."

Dr. Sammons said that if incentives are to be placed in the system in order to hold down costs "then there's got to be some cost sharing; cost sharing between the patient and the insurer, between the employee and the employer, between government recipients—excluding, of course, the poor."

Asked whether the same competitive standards that apply to business can work in the area of health care, Richard Lesher, Ph.D., Chamber President, said "I think not only they can, but I think they must." He said "we must encourage competition among the various forms of health care delivery systems."

Bert Seidman, Director of the AFL-CIO Department of Social Security, said early diagnosis and treatment will keep people out of hospitals and reduce costs. "And that can be done if people have available to them comprehensive benefits without financial barriers to climb."

Representative Barbara Mikulski (D., Md.), a member of the House Commerce Subcommittee on Health, charged that the Administration's cuts in health "are definitely anti-family. They will adversely affect everyone from the unborn to school-aged children to the elderly."

* * *

The American patient in 1977 was billed, on the average, $21.29 for a visit to a physician. The patient waited seven days for the appointment and spent about 30 minutes waiting in the physician's office, according to preliminary findings of a large federal study on the costs and delivery of health care in 1977.

The patient paid $14.69 of the average charge for a visit, with the remainder being covered by private health insurance ($3.41), Medicaid ($1.49), Medicare ($0.85), and other sources ($0.85), the National Center for Health Services Research (NCHSR) study found.

Longer waiting times were noted for appointments to obtain hospital outpatient services (10 days) and visits associated with preventive services, such as prenatal care or eye examinations in a physician's office (14 days).

Hospital outpatient departments also ranked highest in the amount of time a patient spent waiting to see a physician—45 minutes. Hospital emergency rooms kept patients waiting an average of 38 minutes, and physician offices an average of 29 minutes.

* * *

Proposed regulations on medical devices threaten to throw the same roadblocks against innovation and development that now exist for drugs, the AMA has told the FDA (Food and Drug Administration).

The FDA wants authority to place restrictions on devices, including the power to place controls on physician access to a device, by imposing rigid, FDA-defined protocols for the use of a device, and by establishing strict record-keeping requirements for those physicians allowed to use a device, according to the AMA.

Such action is "unnecessary and inappropriate," the AMA said. "Treatment decisions and clinical protocols are best left to the individual physician who must deal with the needs of an individual patient. We urge the agency not to place any restrictions on a device that go beyond limiting its approved distribution to health care professionals recognized by state law within the scope of their license to practice."

The AMA also said the imposition of any conditions on devices should be implemented only "after broad public and physician input . . . if restrictions or conditions that would substantially have impact on medical practice are proposed."

* * *

The AMA has told Congress that people on restricted diets need more information than is now readily available to control their total daily intake of sodium.

The AMA suggested that both sodium and potassium content should be shown in milligrams per serving on food labels.

Testifying before a House Science Subcommittee were Ray Gifford, M.D., of the Cleveland Clinic Foundation and a member of the AMA's Council on Scientific Affairs; and Philip White, Sc.D., Director of AMA's Department of Foods and Nutrition.

Dr. Gifford said that "without information regarding sodium content on the label of foods, dietary planning by physicians and their patients is more difficult. Obviously, a cost-effective system of sodium labeling for foods would be beneficial to both physicians and their patients and would thus be of considerable assistance in the dietary management of hypertension."

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what goes on IN CONTINUING MEDICAL EDUCATION

NEW YORK STATE **JULY 1981**

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George J. Lawrence, Jr., M.D., Director
Mrs. Elizabeth H. Daepp, Editor
Philip Keating, Business Manager

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NEW YORK CITY

New York University Post-Graduate Medical School

550 First Avenue
* Schwartz Lecture Hall-Classroom F
401 East 30th Street
July 6–10, Monday to Friday
FORENSIC SCIENCES SYMPOSIUM 1981
FEE: $285. CREDIT: AMA Cat. 1 (32 hrs.)
For further information contact Registration Office, NYU Post-Graduate Medical School, 550 First Avenue, New York 10016. Tel: 212/340-5295.

Seminars & Symposia, Inc.

1290 Avenue of the Americas
* Western European Passage
July 8–22
A REVIEW OF THE DIAGNOSIS & MANAGEMENT OF THE ANTICIPATED MOST COMMON PROBLEMS OF THE 1980s
Leonard Scherlis, M.D., Edward J. Kowalewski, M.D.
CREDIT: AMA Cat. 1 (30 hrs.)
July 17–July 30
* Sailing the Adriatic and Tyrrhenian Seas
MARRIAGE, LIFE STYLES, STRESS & SEXUALITY
Joseph B. Trainer, M.D., Ranee Young Trainer, B.S., M.S.
CREDIT: AMA Cat. 1 (30 hrs.)
July 22–August 1
* The People's Republic of China
CURRENT CONCEPTS IN THE MANAGEMENT OF BREAST, THYROID, & PARATHYROID DISEASE
Patricia J. Numann, M.D.
CREDIT: AMA Cat. 1 (40 hrs.)
For further information contact Nathaniel Finby, M.D., President, Seminars & Symposia, 1290 Avenue of the Americas, New York 10019. Tel: 212/489-7790.

The Page and William Black Postgraduate School of Medicine of the Mount Sinai School of Medicine (CUNY)

* The Mount Sinai Medical Center
One Gustave Levy Place
July 13–17, 9:00 a.m.–5:00 p.m., Monday–Friday
CELLULAR BASIS OF IDIOTYPY
Constantin Bona, M.D.
FEE: $350 CREDIT: AMA Cat. 1 (32½ hrs.)
July 22, 1:00–5:00 p.m., Wednesday
July 23, 8:30 a.m.–6:00 p.m., Thursday
July 24, 8:30 a.m.–6:00 p.m., Friday
GAUCHER DISEASE: THE MOST PREVALENT JEWISH GENETIC DISEASE
Robert Desnick, Ph.D., M.D. and Staff
FEE: $100. CREDIT: AMA Cat. 1 (17 hrs.)

SUFFOLK COUNTY

State University of New York at Stony Brook

* Health Sciences Center
July 7–9
CHILD/FAMILY ABUSE/NEGLECT: THE RIPPLE EFFECT
Douglas Besharov, J.D., LL.M., Vincent J. Fontana, M.D., Ray Helfer, M.D., LaVohn Josten, R.N., Brandt Steele, M.D.
FEE: $150.

For further information contact C.P. Ed., School of Nursing, SUNY at Stony Brook, 11794. Tel: 516/246-2050.

BUFFALO

State University of New York at Buffalo and The Children's Hospital

219 Bryant St.
Buffalo
* Buffalo Hilton Hotel
Buffalo
July 16–18
THE 4TH NATIONAL BUFFALO CONFERENCE ON PEDIATRIC/ADULT ALLERGY AND CLINICAL IMMUNOLOGY
Drs. Elliott Middleton, Jr. and Elliot F. Ellis
FEE: $225. CREDIT: AMA Cat. 1 (16 hrs.)
July 23–25
THE 12TH ANNUAL ADVANCES IN PEDIATRICS
Elliot F. Ellis, M.D.
FEE: $200. CREDIT: AMA Cat. 1 (14 hrs.)

For further information contact Rayna Dutton, Coordinator, Continuing Medical Education, Children's Hospital, 219 Bryant Street, Buffalo 14222. Tel: 716/878-7689.

SYRACUSE

SUNY-Upstate Medical Center

750 East Adams Street
Syracuse
* Auditorium—Room 1027
Weiskotten Hall
Upstate Medical Center
766 Irving Avenue
Syracuse
June 3
POST-GRADUATE EDUCATION DAY: PEDIATRICS
Peggy Ferry, M.D., Richard Johnston, Jr., M.D.
FEE: $45.00 CREDIT: AMA Cat. 1 (7 hrs.)
$ 5.00 lunch
For further information write to Betty Frost, Program Assistant, Office of Continuing Education, State University of New York, Upstate Medical Center, 750 East Adams Street, Syracuse 13210. Tel: 315/473-4606.

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SCHEDULE OF SCIENTIFIC MEETINGS

1981 ANNUAL CME ASSEMBLY

Medical Society of the State of New York
Niagara Falls Convention Center

FRIDAY, JUNE 26

Morning: Cardiovascular Diseases
Obstetrics & Gynecology
Gastroenterology, Colon & Rectal Surgery
Cancer Update 1981—General Session
Chest Diseases

Afternoon: Occupational Medicine, and Medical Legal & Workers' Compensation matters
Obstetrics & Gynecology
Gastroenterology, Colon & Rectal Surgery
Alcohol & the Unborn—General Session
Preventive Medicine
Otolaryngology & Maxillofacial Surgery
Dermatology & Syphilology Niagara Hilton

SATURDAY, JUNE 27

Morning: Ophthalmology
Internal Medicine
Surgery, Urology & Anesthesiology
Pathology, Radiology & Orthopedic Surgery
Neurosurgery

Afternoon: Ophthalmology
Internal Medicine
Computer Application to Office & Hospital Practice General Session
Cost Containment (Meeting Room 2)
Albion O. Bernstein, M.D. Award Lecture—General Session

SUNDAY, JUNE 28

Morning: Allergy & Immunology
School Health & Pediatrics
Psychiatry & Family and General Practice
Plastic, Reconstructive & Maxillofacial Surgery and Physical Medicine & Rehabilitation, and Orthopedics
Neurology

CME CREDITS: Each program will be eligible for CME Category I Credits on an hour-for-hour basis.

SCIENTIFIC & TECHNICAL EXHIBITS

BASIC CARDIAC LIFE SUPPORT (BCLS) COURSE is open to MSSNY members only, Friday & Saturday, 8:30 a.m.–4:30 p.m. (Lower Level)

physicians' placement opportunities

Compiled by the
Division of Scientific Activities
George J. Lawrence, Jr., M.D., Director
Mrs. Elizabeth H. Daepp, Editor
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OSWEGO, N.Y., contact J. Sherwood Dunham, Oswego Hospital, 110 West Sixth Street, Oswego 13126.

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ENT

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INFORMATION REGARDING OPENING FOR A PHYSICIAN
(General Practice or Specialist Associate)

Date__________

Name of Town__________County__________State__________

Population__________Population of area served by physician__________

What type of specialty?__________New opening?__________
If this is a replacement, why did former physician leave?__________

When will position be available?__________

Please list special requirements: a) Residency training?__________
b) Board eligible?__________Board certified?__________Age?__________

Please describe type of practice: a) Solo?_____b) Association?_____Please describe the reason for associateship__________
c) Group practice? Please give details, i.e., number in group, number in this specialty, when group was commenced__________

Please show what type of financial agreement is acceptable: a) Straight salary?__________
b) Percentage basis?__________c) Will investment be necessary?__________
d) If partnership basis is acceptable, how soon would it be available?__________
__________e) Would written agreement be used?__________

Office space available? Yes_____No_____ If yes, describe briefly__________

Living quarters available? Yes_____NO_____ If yes, describe briefly__________

Is there a hospital in the town? Yes_____No_____ If yes, please describe, i.e., number of beds, type of ownership, how soon can physician obtain hospital privileges__________

If no, please describe hospitals in nearby areas__________

List any other features which you consider would make the position attractive to a prospective physician__________

List person to be contacted by interested physician giving name, address and telephone number

When completed, kindly return to: Physicians' Placement Bureau, Medical Society of the State of New York, 420 Lakeville Road, Lake Success, N.Y. 11042. Telephone: (516) 488-6100.

QUESTIONNAIRE FOR PHYSICIANS SEEKING LOCATIONS

(Please print in black)

Name Date

Address

(Zip code number) (Telephone Number)

Date of Birth Place of Birth

Citizenship Status Marital Status

Medical School Year Graduated

Internship

Hospitals Dates

Residency

Hospitals Dates

Specialty

Licensed in what States?

Applied for

American Board Certificates held?

Eligible Certified

Do you have a New York State License? Date of Certificate

Military Status

Professional Organization Memberships

Are you in practice at present? What type of practice are you interested in?

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Classification codes

CN = Contemporary Nutrition
CNT = Clinical Note
CPC = Clinicopathologic Conferences
CR = Case Reports
DI = Drug Information
ED = Editorials
GER = Geriatrics
HIST = History of Medicine
HYP = Hypertension
ID = Infectious Diseases
IHN = Interesting Historical Notes
LE = Letters to the Editor
PH = Public Health News
RPC = Correlation Conferences in Radiology and Pathology
SH = School Health
SPEC = What's New in Specialties?

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JULY 1981

vol. 81 #8

First use of plaster of Paris bandages by Lewis A. Sayre, M.D. Professor of Orthopedic Surgery at the Bellevue Hospital Medical College. These photographs were taken during a demonstration of his technique, circa 1877, and are from his book "Spinal Disease and Spinal Curvature." (*Courtesy Stanley B. Burns, M.D., Historical Medical Photographic Archive*). See page 1226.

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Letters to the Editor

Psychiatric treatment in the aged

To the Editor: I was interested in the two special articles on mental health problems in the aging, featured in the April, 1981,* issue. Our profession can certainly profit from a deeper understanding of the psychiatric needs and treatment approaches in this group. I would like to point out, however, that there was no mention of alcohol abuse and alcoholism in the elderly, a growing problem which has largely been ignored.

In the Third Special Report to the U.S. Congress on Alcohol and Health, the National Institute on Alcohol Abuse and Alcoholism noted the significant number of persons over 60 years of age who experience problems with alcohol. Citing the work of Schuckit and Miller[1,2] and the NIAAA (National Institute on Alcohol Abuse and Alcoholism) report by Armor et al.,[3] the prevalence of problem drinking among the elderly was reported at two percent for women and between two and ten percent for men. NIAAA further notes that about ten percent of the alcoholics in treatment are over 60. The implication of alcohol abuse in general medical problems of the elderly is suggested by the finding that 18 percent of patients over 65 who were admitted to the acute medical ward of a large metropolitan hospital were active or inactive alcoholics. The interaction between alcohol and other psychoactive drugs in the elderly presents an additional hazard to which physicians should be alert.

I hope you will bring to your readers' attention this addition to an otherwise excellent discussion of the subject.

SHEILA B. BLUME, M.D.
Director, Division of Alcoholism and Alcohol Abuse
194 Washington Avenue
Albany, N.Y. 12210

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Dr. Jacobson's reply

To the Editor: Dr. Blume's comments about the prevalence of alcoholism among the aged are certainly valid.

A significant number of old people in the community are alcoholics and alcoholism is implicated in a large proportion of admissions of the elderly to both general and psychiatric hospitals. Alcohol abuse is also a problem in long-term care facilities for the aged, although to a lesser degree.

While the subject of alcohol abuse and alcoholism was not included in my limited discussion of psychiatric treatment in the aged, it should be brought to the attention of practicing physicians. Perhaps Dr. Blume or someone from the Division of Alcoholism and Alcohol Abuse could contribute an article on this serious matter to the New York State Journal of Medicine.

SEYMOUR B. JACOBSON, M.D.
55 East 86th Street
New York, N.Y. 10028

Many thanks, DR. HALSTED

To the Editor: Everyone has heard that hackneyed and possibly exaggerated claim associated with moments of extreme stress: "Suddenly my whole life flashed before my eyes."

On July 25, 1979, while lunching on iced tea and a ham and cheese on rye, at a pleasant Long Island beach, I found myself in a moment of extreme stress, seized by a rapidly intensifying stomach ache and continuous vomiting. Just nine months before I had experienced an identical syndrome, and the diagnosis had been coronary thrombosis.

I may have thought, "Here we go again," but my whole life certainly did not flash before my eyes. At best I may have had a sudden vision of John Singer Sargent's famous painting, "The Four Doctors," for at that instant the name of one of them, William Stewart Halsted, came into my mind, bringing with it a dawning sense of relief and an enormous gratitude that, almost a century before, he had introduced to the medical profession of the Western Hemisphere—cholecystectomy. The symptoms I was now displaying offered this as a welcome alternative to another coronary.

Halsted was surely one of medicine's great innovators, and his imposing list of "firsts," many of them achieved at Bellevue, my own hospital for years, have brought comfort and cure to a multitude of men and women from his time on, although he, himself, suffered a lifetime damage from one of his experiments. His injection of the ulna side of his forearm with 4 percent cocaine led to the introduction of regional anesthesia, but at the cost to Halsted of an unshakable addiction. Koller's anesthetization of the conjunctiva and cornea, which he announced at the Heidelberg Ophthalmic Conference in September, 1884, stemmed from Halsted's experiment. In 1922, the year Halsted died, the National Dental Association recognized his contribution by bestowing a gold medal on him for his achievement in anesthetizing the inferior dental nerve.

The use of gloves in the operating room was one of Halsted's innovations, too. In 1889, when his operating room nurse developed a dermatitis of the hands from the mercuric chloride in the scrub bath, he sent her to the 5-and-10 to buy a pair of gloves, (probably cotton,) then asked the Goodyear Rubber Company to make some thin rubber gloves with gauntlets for her, for him, and for his residents. Presently rubber gloves were in use throughout the profession.

continued on page 1278

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* Pardes, H.: The aging; mental health problems, New York State J. Med. 81: 798 (Apr.) 1981; Jacobson, S. B.: Psychiatric treatment in the aged, ibid. p. 802.

Abstracts

Frampton, M. W.: Temporal arteritis: seven variations, **New York State J. Med.** 81: 1179 (June) 1981.

Seven cases of temporal arteritis are presented, each of which illustrates a different aspect in the spectrum of this disease. Emphasis is placed on the importance of prompt and correct diagnosis, as well as the dilemma of prolonged therapy with corticosteroids in elderly people.

Rubler, S.: Exercise testing in asymptomatic diabetic females, **New York State J. Med.** 81: 1185 (July) 1981.

Seventeen diabetic females (mean age 39.6 plus or minus 9 years) and nine healthy women (mean age 38 plus or minus 5.2 years) exercised on a motorized treadmill according to Bruce[15] protocol. Standard 12-lead electrocardiograms were recorded every minute during exercise and at three, five, and eight minutes postexercise. Blood pressures, oxygen consumption, and LVET (left ventricular ejection times) were also determined. The increase in heart rate was greater in normal women than in diabetic females (98.2 plus or minus 17.1 versus 85.7 plus or minus 11.2 beats per minute): the duration of exercise was longer in the former group 578.7 plus or minus 100.3 sec.) than in the latter group (455.0 plus or minus 122.7 sec.): the estimated oxygen consumption was higher (33.4 plus or minus 5.6 ml. oxygen per kilogram per minute) in the normal than in the diabetic subjects (26.5 plus or minus 6.9 ml. oxygen per kilogram per minute). Eight members of the diabetic group and two healthy women developed significant ST-segment depressions on exertion or in the postexercise period. All the diabetic females with abnormal electrocardiogram results were over 38 years of age. The decreased increment in heart rate, decreased exercise performance, and higher incidence of ST-segment depressions may presage the development of clinical heart disease secondary to myocardial dysfunction or to coronary artery disease. We suggest that long-term serial studies may identify subjects at risk for the development of cardiovascular disease in this highly susceptible population.

Kutcher, R., Rosenblatt, R., and Weissman, H.: Sonographic appearance of emphysematous cholecystitis, **New York State J. Med.** 81: 1192 (June) 1981.

The sonographic appearance of emphysematous cholecystitis consists of a constant broad band of high amplitude echoes with "soft" acoustic shadowing emanating from the right upper quadrant. Localization of the gallbladder fossa and differentiation from other pathologic processes are discussed. Early diagnosis is imperative due to the high morbidity and mortality rates in these patients.

Zaino, E. C.: Blood counts in the nonagenarian, **New York State J. Med.** 81: 1199 (July) 1981.

Blood counts were performed on 96 persons, 96 to 106 years of age. The hemoglobin, hematocrit values, white blood count, differential, and blood pressure determina-

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Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term reliet ot symptoms of anxiety or anxiety associated with depressive symptoms Anxiety or tension associated with stress of everyday lite usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i e., more than 4 months, has not been assessed by systematic clinical studies Reassess periodically usetulness ot the drug tor the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma

Warnings: Not recommended in primary depressive disorders or psychoses As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants

Physical and Psychological Dependence Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance ot benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating) Addiction-prone individuals, e.g drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because ot their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance ot benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation. Terminate dosage gradually since abrupt withdrawal ot any antianxiety agent may result in symptoms like those being treated anxiety, agitation, irritability, tension, insomnia anc occasional convulsions Observe usual precautions with impaired renal or hepatic tunction Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component Esophageal dilation occurred in rats treated with lorazepam for more than 1 year a 6mg/kg/day No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 month ot first observation Clinical significance is unknown; but use ot lorazepam for prolonge periods and in geriatrics requires caution and trequent monitoring for symptoms of upper G.I disease Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS Some patients have developed leukopenia; some have ha elevations of LDH. As with other benzodiazepines periodic blood counts and liver function test are recommended during long-term therapy

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressar ettects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS. No evidence of carcinogenic potential emerged i rats during an 18-month study No studies regarding mutagenesis have been performed.

PREGNANCY Reproductive studies were performed in mice, rats, and 2 strains ot rabbit Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisi malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship t dosage Although all these anomalies were not present in the concurrent control group, the have been reported to occur randomly in historical controls. At 40mg/kg and higher, there wa evidence of fetal resorption and increased fetal loss in rabbits which was not seen at low doses. Clinical significance of these findings is not known. However, increased risk ot conger tal malformations associated with use ot minor tranquilizers (chlordiazepoxide, diazepam ar meprobamate) during tirst trimester ot pregnancy has been suggested in several studie Because use ot these drugs is rarely a matter of urgency, use of lorazepam during this peric should almost always be avoided. Possibility that a woman of child-bearing potential may I pregnant at institution of therapy should be considered. Advise patients it they become pre nant to communicate with their physician about desirability of discontinuing the drug humans, blood levels from umbilical cord blood indicate placental transter of lorazepam and glucuronide

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like oth benzodiazepines As a general rule, nursing should not be undertaken while on a drug sin many drugs are excreted in milk.

Adverse Reactions, it they occur, are usually observed at beginning of therapy and genera disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxio patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9 weakness (4 2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, na sea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, e function disturbance, various gastrointestinal symptoms and autonomic manifestations. In dence of sedation and unsteadiness increased with age Small decreases in blood pressu have been noted but are not clinically significant, probably being related to relief of anxiety.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents m have been taken Manifestations of overdosage include somnolence, confusion and con Induce vomiting and/or undertake gastric lavage followed by general supportive care, monit ing vital signs and close observation. Hypotension, though unlikely, usually may be controll with Levarterenol Bitartrate Injection U.S.P Usefulness of dialysis has not been determined

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for (lorazepam)
Anxiety

Dosage: **Individualize for maximum beneficial effects. Increase do gradually when needed, giving higher evening dose before increasi daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosa may vary from 1 to 10mg/day in divided doses. For elderly or deb tated, initially 1-2mg/day; Insomnia due to anxiety or transient situ tional stress, 2-4mg h.s.**

How Supplied: **0.5, 1.0 and 2.0mg tablets.**

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In clinical studies, Ativan was given concomitantly with hundreds of medications, including gastrointestinal and cardiovascular, with no reported interactions. Whereas the interaction of diazepam and cimetidine has been shown to cause increased sedation in patients taking both drugs, the clearance of Ativan is not delayed by Tagamet.‡

2 Lets most patients stay active

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3 Not appreciably affected by aging

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* Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic.

† All benzodiazepines, however, produce additive effects when given with CNS depressants, such as barbiturates or alcohol.

‡ Tagamet (cimetidine) is a registered trademark of Smith Kline & French Laboratories, Division of SmithKline Corporation.

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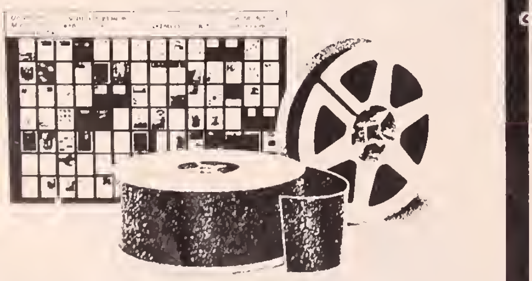

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tions were performed. The results show a mean hemoglobin value of 12.3 Gm. per deciliter which is lower than the mean value for younger adults. The mean blood pressure is 121/69. The sex and country of birth do not influence findings for the hemoglobin, hematocrit, white blood count, differential, or blood pressure.

Whitehead, E. D.: Management of bladder carcinoma, New York State J. Med. 81: 1201 (July) 1981.

Bladder carcinoma is the most frequent malignant tumor of the urinary tract, causing approximately 10,000 deaths annually. This article reviews the known and suspected etiologies, methods of detection, current diagnostic, prognostic, and staging investigations, principles and therapeutic alternatives of management, and follow-up methodologies.

New publication

Increasing attention is being focused on the need for training in the health care of older Americans. The National Institute on Aging (NIA) has recently published *Perspectives on Geriatric Medicine* in an attempt to further our understanding of the growing needs of the elderly.

The pamphlet presents interviews with leaders in the development of geriatrics. Topics include: the history of geriatric medicine in the United States; the role of geriatrics in the medical school curriculum; proposed changes in the health care delivery system; overmedication of elderly patients; and a consumer's point of view.

Single complimentary copies of *Perspectives on Geriatric Medicine*—as well as its companion *Observations on Geriatric Medicine*, which presents a practicing geriatrician's firsthand assessment of the health care needs of the elderly—may be obtained by writing to: Expand Associates/NIA, 8630 Fenton Street, Suite 508, Silver Spring, Maryland 20910.

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Editorials

The education and the Regents of the State of New York; Are the *last* two years of medical school really necessary?[*]

On October 23, 1980, the New York Board of Regents adopted a policy of State accreditation of foreign medical schools to facilitate the ability of USFMSs (United States citizens studying in these schools) to participate in clinical clerkships and ultimately practice in the State of New York.[1] The State Education Department was subsequently charged with the task of developing regulations to put this policy into effect.

The Regents' action was of considerable concern to those who are engaged in medical education and the provision of health care in the State, and it provoked formal statements of disagreement from the AAMC (Association of American Medical Colleges),[2] the Associated Medical Schools of New York,[3] the Association of Academic Health Centers,[4] and the American Medical Association House of Delegates.[5] All these organizations decried the accreditation of foreign medical schools by individual states; to varying degrees, they all support the establishment of a uniform national standard for all schools.

New York State and Medical Manpower

To place the action of the Board of Regents in perspective, it is helpful to review the role taken by New York State in the training of United States citizens in foreign medical schools, the assumptions underlying these recommendations, and the potential impact that this action may ultimately have on the quality of medical care.

New York State, with its 12 medical schools, has the country's largest enrollment of medical students; it is also a leading State with respect to the number of residents applying to medical schools. It is therefore not surprising that a proportionate number of these applicants are unsuccessful in gaining admission to a United States medical school. There has been an increasing tendency for unsuccessful applicants to apply to foreign medical schools, mainly in Mexico and the Caribbean. Data provided by the AAMC indicate that, although there has been a consistent overall decrease in the number of applicants to medical school, the proportion of repeat applicants has dropped much more sharply.[6] This observation suggests (but does not prove) that the enrollment in "offshore" medical schools has increased.

The precise number of USFMSs remains unknown. Recent estimates suggest that the five-year pipeline may contain as many as 15,000 students.[7] A total of 3,150 United States citizens participated in the 1979 examinations of the Educational Commission for Foreign Medical School Graduates (ECFMG).[8] Although these data do not separate repeaters from first-time takers, the total number represents an increase of 399 USFMSs over 1977 figures.[9] The more recent report by the Graduate Medical Education National Advisory Committee estimates that by 1983 the annual number of foreign medical graduates entering medical practice in the United States will be 4,100.[10]

A considerable number of USFMSs are residents of New York State. Data provided by the AAMC in 1975 and 1976 indicated that 41 percent and 38 percent respectively, of all students who had applied for advanced standing to United States medical schools were residents of New York State.[11] Data on the prevalence of fifth pathway graduates in residency positions show New York State to be training 535 (36 percent) of the national pool of 1,481. Similarly, New York State ranks second only to New Jersey in the percentage of medical residents who are graduates of foreign medical schools (43 percent vs. 69 percent, respectively).[12]

Many of the foreign schools with large USFMS enrollments have few or no clinical facilities. Therefore, these schools have either established semiformal agreements with hospitals in this country to allow for clinical training or have let their students fend for themselves in attempting to obtain appropriate clinical training. Most American hospitals affiliated with American medical schools are already intensely involved in undergraduate medical training. Any available space in affiliated hospitals is usually filled by accepting students with advanced standing into the medical school. Hospitals accepting USFMSs are therefore smaller, nonaffiliated institutions that might not even have accredited residency programs.

In New York State this situation presents a particular problem. Section 6526-8 of the New York State Education Law states that medical students are permitted to practice medicine in the State without a license only while they are "performing in a clinical clerkship" and are enrolled in a medical school that "meets standards satisfactory to the department."[13]

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In 1960, all medical schools listed in the World Health Directory were arbitrarily approved as meeting those standards. Since that time, a number of new foreign medical schools have been established, and most of these are profit-making institutions catered specifically to training United States citizens. At present, therefore, any hospital in the State (regardless of its own medical-school affiliation) that has USFMSs on its clinical rotations who are enrolled in these new schools is in violation of the State Education Law; such violations are a Class E felony. This matter has been of concern to the Regents at least since 1977. In 1978, the Deputy Commissioner of Education stated that "any student planning to enter a developing school or unusual education program should do so with the utmost caution and with the realization that admission to the licensing examination in New York is by no means assured."[14]

More recently, the widespread presence of USFMSs in clinical training in hospitals in New York State has also become a matter of concern to the Office of Health Systems Management, which monitors hospital care. In 1980, this agency sent a memorandum to all hospitals reminding them of the existing State law and suggesting that institutions with USFMSs, may be subject to a finding of "aiding in the unlawful practice of medicine."[15] The Office announced its intention to survey all institutions to determine whether violations existed. When confronted with the task of determining which foreign medical schools were unable to meet New York standards, the Office promptly deferred to the Board of Regents Division for the Professions.

In response to this mounting concern, an effort was undertaken on behalf of the Regents Committee on Higher and Professional Education to develop guidelines on foreign medical students with respect to provision of clinical training in hospitals in New York State and admission to State licensing examinations and to licensure.[16] These initial recommendations were intended to establish an accreditation system that was similar if not identical to that used by the Liaison Committee on Medical Education (LCME), thus ensuring that students taking clinical clerkships or graduate training in this country were in fact equipped with an adequate basic-science and clinical background comparable to that of students in United States medical schools. The basic objective was therefore to restrict the entry of unqualified students at all levels. Unfortunately, the final action recommended by the Board of Regents may have the opposite effect.

The Regents' policy

The policy approved by the Regents establishes accreditation of foreign medical schools by questionnaire, allows USFMSs in the accredited schools to take basic clinical training at hospitals without direct supervision of either American or foreign medical schools, and relieves students who complete two years of hospital training of the requirement of passing any proficiency examination or completing any additional requirements that are not asked of graduates of United States medical schools. In an attempt to provide some assessment of individual knowledge of the basic sciences, the policy would require students, before beginning clinical training, to achieve a passing score on the newly developed Medical Sciences Knowledge Profile (MSKP) Examination—a test specifically constructed to prevent a passing score from being fairly calculated. Scores on each of the examination's eight subtests are reported on a stanine scale ranging from 1 to 9 (9 being the highest score). A total test score is not provided, nor is a designation of "pass" or "fail."[17] To ensure the quality of clinical training provided to USFMSs by nonaffiliated hospitals in the State, a hospital would be required to obtain the approval of the Liaison Committee on Graduate Medical Education for the residency program in the field in which the student would be placed.

The approval of this policy by the Regents is unique in that it implies (1) that an individual state should formally enter the accreditation process—a role previously left to national or federated agencies; (2) that an appropriate knowledge of the quality of education provided by a medical school can be obtained through a mailed questionnaire; (3) that a medical school can meet appropriate educational standards without any clinical facilities; (4) that adequate clinical training can be obtained at institutions that are not currently involved in undergraduate medical-school teaching and are devoid of any formal affiliation with a medical school; (5) that the requirement that USFMSs pass the ECFMG examination may no longer be necessary; and (6) that there is an existing and future shortage in medical manpower that necessitates a quick remedy through extraordinary measures. It is unfortunate that none of these hypotheses are able to withstand closer scrutiny.

State accreditation of foreign medical schools

Although the accreditation of United States medical schools has previously been the responsibility of the LCME, there may be nothing inherently wrong with a state agency's assuming this responsibility if it so desires. It is unlikely, however, that a state evaluation process that is specifically geared toward foreign medical schools could be as effective as the existing accreditation procedures. The LCME accreditation process is based on extensive observations by panels of experienced participants. If the LCME does not wish to accredit foreign medical schools, as suggested by Cramblett,[18] the most appropriate body would be the Federation of State Medical Boards. Indeed, the Federation has established a national commission to help individual boards determine the adequacy of foreign graduates' medical training.[5]

To state that the use of a mail-order questionnaire is less than desirable is to belabor the obvious. Completion of such a form without the provision of adequate safeguards to ensure validity would not only be of little value but would also lend an aura of respectability to "approved" schools that would further aid in their recruitment efforts. It may have been this unintentional aura of respectability (several "offshore" schools were promoting student enrollment on the basis of the ability of their students to become diplomates of the National Board of Medical Examiners) that played a part in the Board's decision to prevent any student not enrolled in a LCME-accredited school from sitting for the National Board Examinations.

It is reasonable to expect that a medical school accredited by any public agency should be able either to provide appropriate supervised clinical training on its own campus or to establish a formal relationship with an approved medical school that would accept this obligation. The action of the Regents seems to imply that an accredited medical school need not take responsibility for the clinical training of its students. The ultimate result of this decision might be the reestablishment of proprietary schools of medicine within the state.

Adequacy of basic-science knowledge

The quality of basic-science teaching at many of the foreign medical schools has been the subject of considerable controversy. Recently, the General Accounting Office made on-site visits to foreign schools that are known to enroll large numbers of USFMSs. The resulting report indicates that although the curricula at these schools appear to be similar to those of American medical schools, the lack of facilities, equipment, and faculty at many schools made the content of the curriculum less than that received by students at United States schools.[19] The foreign schools, however, would have little difficulty in satisfactorily completing a questionnaire concerning the curriculum offered.

The proposal of the Board of Regents assumes that if a school meets state standards, the basic-science knowledge of its students will be sufficient to allow them to proceed into the clinical years. The requirement that a student achieve a passing score on the MSKP is not helpful, since an overall passing score on this examination cannot be fairly calculated. This situation will undoubtedly result in the requirment that a score is "satisfactory" to the Regents. Since most "satisfactory" scores are calculated with standard deviations from the mean of the reference group, and since the political pressure to admit these students is considerable, a "satisfactory" score will probably be set for each component of the examination to allow the majority of these students to enter clinical training.

Although there are few data on the comparative performance of United States Medical students and USFMSs on the MSKP, some information on USFMSs' knowledge of basic science is available. In previous Part I examinations of the National Board of Medical Examiners, the pass rate for USFMSs varied from 23 to 55 percent, as compared with 88 percent for United States medical-school students.[8] On the most recent MSKP examination (the test now used to assess the basic-science knowledge of persons applying for admission with advanced standing), the USFMSs performed considerably below the level of the United States medical-student peer group.[20] A comparison of the scores achieved by USFMSs on their best and worst sections of the June, 1980, MSKP examination with the performance of United States medical students is illustrative. On the behavioral-sciences section, 36 percent of USFMSs scored 5 or lower, as compared with 4.3 percent of United States medical students. On the anatomy section, 42 percent of USFMSs scored at this level, as compared with 10.9 percent of United States medical students. No United States medical students scored below 3, whereas 10 to 15 percent of USFMSs scored at this level.[20] These data suggest that the current basic-science training received by the majority of USFMSs is certainly less than adequate.

Clinical training in nonaffiliated hospitals

The approval for students to take clinical training in hospitals that are not affiliated with medical schools but that have at least one residency program accredited by the Liaison Committee on Graduate Medical Education assumes that a hospital with a residency program can effectively assume the responsibility to provide high-quality teaching to undergraduate medical students. The General Accounting Office report, however, addresses this point clearly. Most of the American hospitals providing clinical training to these students are not teaching hospitals affiliated with United States medical schools, do not offer clinical training comparable to that of affiliated teaching hospitals, do not ascertain whether the students whom they accept have proper preparation, and are not adequately monitored by the foreign medical schools.[19]

The evidence also suggests that the programs not affiliated with academic health centers have less competitive residencies and are filled predominantly with foreign medical graduates who are far from happy with the level of graduate teaching. Graettinger has shown that affiliated hospitals have a match rate of 1½ to five times that of nonaffiliated institutions.[21] Nonaffiliated programs are for the most part considered unacceptable by United States medical students and are filled by foreign medical graduates.[21,22] The major reason for this lack of competitiveness is the weakness of their teaching resources. Approval of such institutions for the training of medical students in the clinical years will not only result in inadequately trained students but also will seriously hamper the existing marginal teaching effort for the house staff. It may also adversely effect the quality of care.

The ECFMG examination tests clinical as well as basic-science knowledge. Although it is constructed so that 95 percent of the United States medical students would be able to pass, the pass rate of the USFMSs for the 1979 ECFMG examination was 39 percent.[8] Considerable variations in the pass rates did exist, however, with respect to individual foreign schools. In some of the offshore schools—notably those in the Caribbean—pass rates were as low as 7 percent.[8,9] The new policy, if adopted by the Regents, may remedy this problem through the simple expedient of eliminating the ECFMG requirement.

Subjective evaluation of clinical performance of USFMSs in house-staff training has been favorable.[23-26] These observations must be tempered, however, by the knowledge that the proportion of USFMSs who are unable to qualify for house-staff positions because of failure to pass the ECFMG examination is considerable; that USFMSs and foreign nationals are frequently considered one group; and that these students are competing for programs of low acceptability to United States medical students, making peer comparison difficult. Objective methods of evaluation consistently reveal differences in performance between these two groups.[27-29]

The need for more physicians

One of the more perplexing conundrums raised by the Regents' action is the perceived need for such a policy. The number of applicants to first-year classes of United States medical schools has undergone a considerable decline over the past five years, decreasing from 42,624 in 1974 to approximately 36,200 in 1980.[30] This change has been accompanied by an increase in the number of enrolled students from 15,066 to 17,180. As a result, the proportion of students accepted has risen from 35 percent to 47 percent—a ratio that compares favorably with other graduate programs. The number of qualified students unable to gain acceptance to a United States medical school has probably diminished considerably. More important, this action comes at a time when both the executive and legislative branches of the government have expressed their concern over the projected excess of physicians.[31] In fact, the recently released report by the Graduate Medical Education National Advisory Committee predicts a surplus of 70,000 physicians in 1990; by the year 2000, this figure could reach 145,000.[10] It is estimated that foreign medical graduates will account for more than half of this surplus.

In formulating measures to address this problem, the Advisory Committee has recommended a 10 percent reduction in admissions to American medical schools and a change in policy with respect to USFMSs. These recommendations include severely restricting the number of USFMSs entering the country as well as halting all scholarships or loans provided to United States citizens studying at foreign schools. In the face of these recommendations, the Board of Regents seems to be acting in direct opposition to these suggestions by facilitating the entry of USFMSs and decreasing the stringency of existing entrance requirements.

Conclusions

The Board of Regents of the State of New York has taken a rather unusual stance with respect to the standards of medical education that should be applied to one group of students. This action will not only lower the standards of medical education but will ultimately adversely affect the quality of medical care provided to residents of New York State. It is sad to note that this action was taken without consultation with any of the medical schools of the State of New York and in spite of the General Accounting Office report. Since the Regents have not yet made a final decision approving their proposal, it is hoped that a careful review will allow them to act accordingly.

Although the concern with USFMSs may be greatest in New York State, past experience with fifth pathway programs suggests that the assumptions inherent in the Regents' policy will have considerable appeal to legislative and educational bodies in any state with residents studying medicine in foreign medical schools. There are certainly well qualified USFMSs who should have equal access to United States graduate medical training, as should qualified foreign medical graduates who are not American citizens. A single standard of competence after a student finishes a formal medical education is most desirable. This test should be the National Board Examinations or their equivalent, the Visa Qualifying Examination.

Accreditation of foreign medical schools by an organization other than the LCME is also worthy of serious consideration. Perhaps the best body to accomplish this task, as suggested by Cramblett,[18] should be the Federation of State Medical Boards. However, the ideas of accrediting medical schools that cannot provide their own clinical training and of approving training at hospitals that lack appropriate affiliations with medical schools or fully approved residency programs strike at the essence of undergraduate medical education.

This problem was recognized by Pritchett as early as 1910. In his introduction to the Flexner Report, he stated: "A hospital under complete educational control is as necessary to a medical school as is a laboratory of chemistry or pathology .... The existence of many of these unnecessary and inadequate medical schools has been defended by the argument that a poor medical school is justified in the interest of the poor boy ... but the facts set forth in this report make it evident that this argument is insincere, and that the excuse which has hitherto been put forward in the name of the poor boy is in reality an argument in behalf of the poor medical school."[32]

These words are as accurate today as they were 70 years ago. It would be most unfortunate if there were a need to repeat them as an introduction to yet another Flexner Report at the end of the next decade.

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Why Regents, why?

After reading Barry Stimmel's article[1] in the New England Journal of Medicine before the New York State Board of Regent's decision, the obvious question is why did the Regents take an action that will undoubtedly dignify[2] the new "Medical" schools in Mexico and the Caribbean? Except for one abstention all of the Regents voted in favor of the new program!

This is particularly distressing when one realizes that those elected as Regents are expected to preserve and maintain high educational standards in New York State; yet they completely ignored all logic and all learned contrary opinions expressed by all of the deans of the New York State medical schools, as well as the opposing opinions of the Association of American Medical Colleges, the American Medical Association, and the Medical Society of the State of New York. Their action effectually threw open widely the back door to the practice of medicine in New York[3] for students rejected by American Schools and lured to enroll in unaccredited schools outside of the United States. The only abstaining member, a black gentleman, did so on the grounds that the new policy did not include incentives to entice graduates to practice in underserved rural and urban areas in our State. Apparently he originally was led to believe that the latter would be the case. Actually, the high tuitions demanded by the entrepreneurial school will discourage poor students, particularly those from minority groups. One cannot help but wonder why the only physician Regent from a borough with a large disadvantaged population did not register a negative vote or, at least, abstain.

If one accepts Dr. Stimmel's analysis of the facts, and no one has disputed him, then the Regents *are* realistically creating a separate accrediting system in New York State for institutions that have *lower* admission standards, *high* tuition fees, *sparse* and *inadequate* basic science teaching, and *no* clinical facilities. In an attempt to supply the latter they find it necessary to "farm out" for clinical training their third- and fourth-year students to hospitals in the United States for a capitation fee.

Most educators would agree that passing a written examination is not a completely satisfactory way of evaluating the performance of a physician. Moreover, many individuals of average intelligence can be coached to succeed in passing a particular qualifying or licensing examination. There are money-making enterprises for just that purpose, and they charge a considerable fee.

Those who ultimately qualify for the privilege of treating the sick should be carefully screened *before* admission to medical school. They must be adequately trained in the basic sciences and also have considerable *clinical experience*, before being granted the grave responsibility for making decisions in life and death situations in private offices and hospitals; therefore: Why Regents, Why?

(1) Does New York State need more physicians? Studies completed and in progress suggest that the answer is no!

(2) Is it more difficult at the present time to get into an accredited school in the United States? The answer is no! Approximately one out of two applicants succeed.

(3) Will the new plan improve the quality of medical care delivered to the citizens of our State? The answer is no! If anything, the poorly prepared students will lower the quality of care.

(4) Will increasing the number of physicians in New York State reduce the cost of medical care? The answer is no! Evidence indicates that the reverse is true.

(5) Will the new plan help to supply physicians to underserved rural areas and disadvantaged urban regions? The answer is still no! It has not occurred in states with large physician populations.

* * *

Even if all the answers were yes, would the plan improve the quality of teaching in the basic sciences and insure adequate clinical training in the medical schools under question? The answer is a qualified maybe? It would depend on the quality of the surveys made, and should include careful analytical site visits as well as adherence to high standards, by a responsible State agency. The level demanded should at least be equivalent to those required of the medical schools accredited in the United States. Again we ask: Why Regents, Why? The public deserves an answer!

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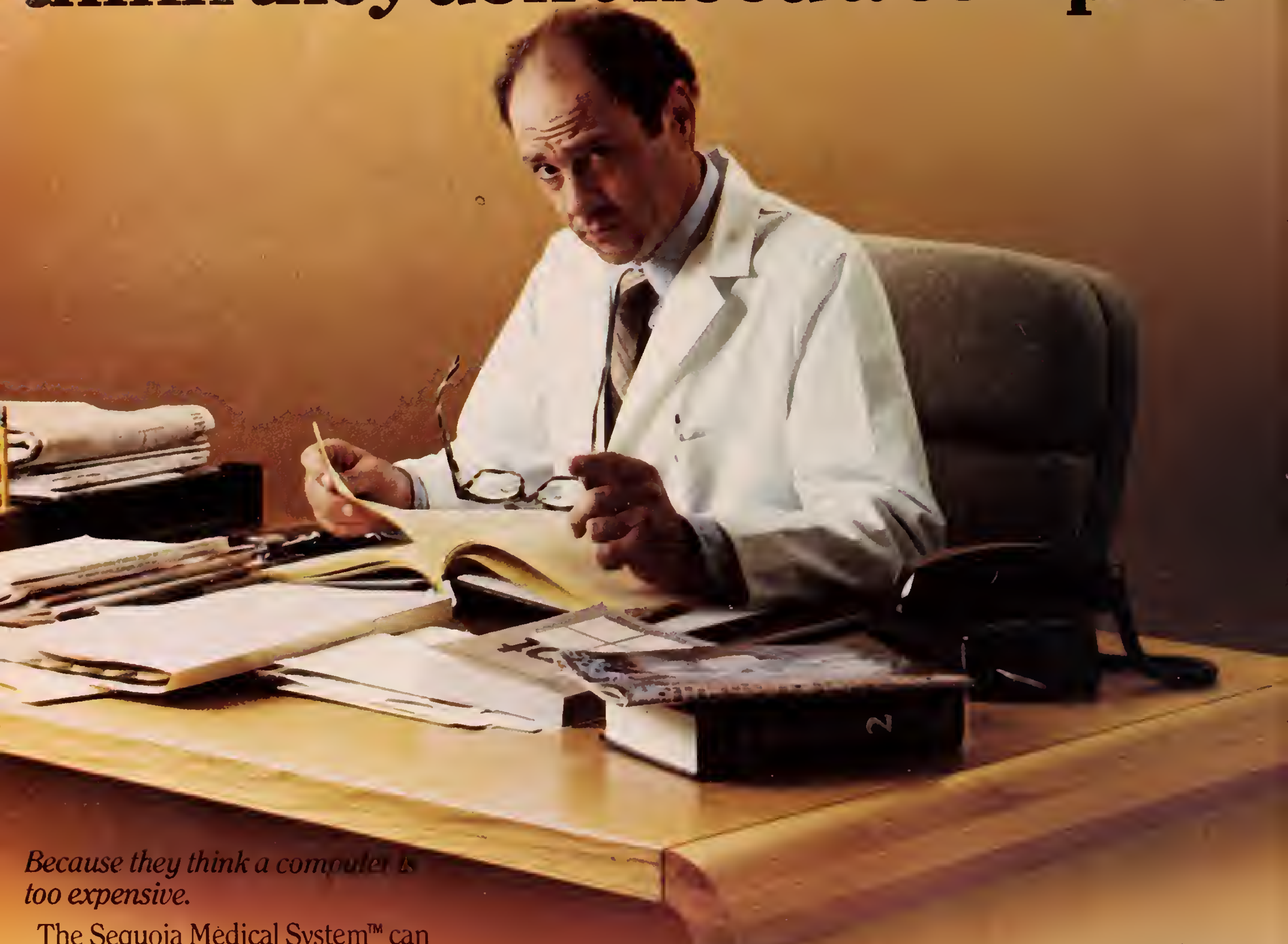

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EDITOR'S NOTE. *As suggested by the reviewer, we congratulate Dr. Mark W. Frampton for allowing the* Journal *the privilege of publishing his paper, "Temporal Arteritis: Seven Variations." This nice clinical paper illustrates that which has become a lost art: a well written series of observations by a busy practitioner in a rural area. We hope it will encourage other physicians in similar circumstances to give us the benefit of their experiences.*

Temporal Arteritis

Seven variations

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Seven cases of temporal arteritis are presented, each of which illustrates a different aspect in the spectrum of this disease. Emphasis is placed on the importance of prompt and correct diagnosis, as well as the dilemma of prolonged therapy with corticosteroids in elderly people.

Temporal arteritis is an illness which has gained increasing attention in the literature in the past decade; once thought to be rare, it is being recognized with increasing frequency.[1] Much of this increase in recognition is due to a developing awareness on the part of primary care physicians of the illness and its manifestations.

Presented and discussed here are seven cases seen consecutively in a single rural primary care practice. Each case dramatically illustrates a completely different aspect of this puzzling and sometimes devastating illness. The illness is described as "treatable," yet each case illustrates how the danger of that treatment has been underemphasized.

Clinical manifestations

TA (temporal arteritis) is a vasculitis which preferentially involves small muscular arteries, most predominantly the extradural cranial arteries. It almost exclusively strikes the elderly, and incidence increases with age. In its classic form the patient appears with headache, low grade fever, visual symptoms, and tender, indurated temporal arteries. Jaw claudication is thought to be pathognomonic.[1] The most serious complication of the disease is sudden blindness due to involvement of the ophthalmic artery, which is irreversible. No symptom, however, is universally present, and patients may have onset of blindness without previous headache; or they may simply suffer from fever and debilitation, with no abnormalities on physical examination, and with temporal arteries that are normal to palpation.[2]

The disease is systemic, and involvement of large arteries is often found at autopsy, although this involvement is rarely symptomatic.[3]

Laboratory studies show elevation of the ESR (erythrocyte sedimentation rate), usually greater than 50 by the Westergren method, and often a mild anemia. Diagnosis is confirmed by biopsy of the temporal artery, which may show classic giant cell arteritis with many Langhans' giant cells (see Case 2, Figure 1), nonspecific inflammation, or intimal fibrosis. "Skip areas" have been described in which segments of the temporal artery can be normal in the presence of active disease.[4] For this reason it is recommended that a generous segment of artery be examined with serial sections; a negative biopsy unfortunately does not exclude the possibility of temporal arteritis.

TA is closely related to PMR (polymyalgia rheumatica), also a disease of the elderly characterized by pain and stiffness in the shoulder and pelvic girdle musculature, elevated ESR, and anemia. There is a large overlap between these two syndromes,[1] although PMR is usually responsive to small doses of steroids.

Treatment of TA requires substantial doses of corticosteroids: therapy is usually started at 60 to 80 mg. of prednisone daily. Once symptoms have been controlled and ESR has returned to normal, the drug is tapered, using the ESR as a guide to relapse. As will be seen in the following case reports, however, this is often not practical. Complications of steroid therapy often become more pressing than the disease itself, necessitating its withdrawal despite indications of disease activity.

Case reports

Case 1. An 83-year-old woman was well except for mild hypertension and diet-controlled diabetes. In January,

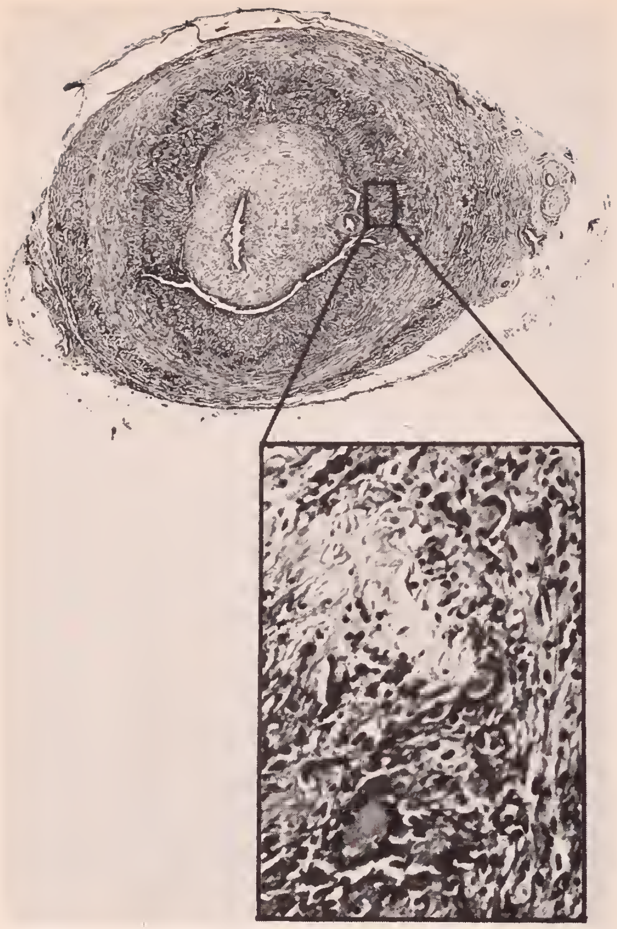

FIGURE 1. Photomicrograph of temporal artery biopsy in Case 2. Inset shows multinucleated giant cells. (Courtesy of Rochester General Hospital Department of Pathology.)

1977 she was seen complaining of one week of right-sided facial pain, headache, earache, and postnasal drip. She also complained of what she thought were "spider bites" on the right side of her forehead. Examination revealed firm, tortuous temporal arteries with tender nodules along their course, especially on the right side. The remainder of the examination was unremarkable. The leukocyte count was 7,800, hemoglobin 12.3, ESR 54 (Wintrobe method). Results of SMA-12 automated blood screen were normal, including fasting blood sugar. Biopsy of the right temporal artery yielded changes consistent with temporal arteritis.

The patient was begun on prednisone, 60 mg. daily by mouth, and had complete resolution of her symptoms. There were no visual changes at any time. Over the next few months prednisone dosage was tapered, but the patient began to have intermittent spells of scalp pain and moderate elevation of the sedimentation rate. She also began to develop a disabling proximal myopathy from the steroids.

During the ensuing months hospitalization was required because of a fall at home resulting in a muscle tear of the thigh. The patient became nearly totally bedridden because of leg weakness. Because of this, steroids were gradually tapered despite recurrent scalp pain and intermittent ESR elevation.

Strength has improved slowly. There have been no visual changes.

Comment. This elderly woman suffered from the more classic and easily recognized form of TA, for which the disease was named. Before treatment she was quite active; steroid-induced myopathy resulted in a fall at home which can have serious consequences at this age. It became necessary to weigh the relative risk of blindness due to reactivated TA against the risk of inactivity posed by her myopathy.

Case 2. An 86-year-old woman was in good health except for mild senile dementia until she awoke one morning with complete loss of vision in her right eye. Examination by an ophthalmologist revealed changes of ischemic optic neuritis on the right; there was no headache, systemic symptom, jaw claudication, or fever. Routine blood studies were obtained and the patient was referred for medical examination. Three days later she was seen in my office; that morning her daughter noted she had difficulty finding her way around. Examination revealed essentially complete blindness, with bilateral changes of optic neuritis. There was some question of light perception in the left eye with a minimal pupillary light reflex. Wintrobe ESR was 55.

The patient was admitted to the hospital and begun on prednisone, 100 mg. daily. There was no improvement in vision, although the patient reported that she could see things at times. The patient became quite confused and agitated in the hospital and had some clearly confabulatory visual experiences. These signs improved as steroid dosage was lowered.

Biopsy of the temporal artery revealed active arteritis with giant cells (Fig. 1).

Since there was no return of vision, steroids were discontinued, and the patient remains well except for mild confusion and blindness.

Comment. This patient illustrates the devastating suddenness of visual complications of TA. This presentation is unusual; in a recent series only 3 of 74 patients appeared with loss of vision.[2] She also unfortunately illustrates the potential consequences of delay in therapy; if TA had been suspected, perhaps one eye could have been saved.

Also, even though her steroid treatment was brief, it resulted in confusion and agitation, making her more difficult to manage.

Case 3. A 79-year-old woman was seen in December, 1976, complaining of feeling generally unwell, with fever and mild chills. There was some minimally productive cough. The patient had been hospitalized one month previously for smoke inhalation following a fire in her home; at that time chest x-ray changes of old tuberculosis were found. There was no fever at that time.

The patient was thought to have bronchitis and was treated with a broad-spectrum antibiotic without improvement. Nightly fevers to 102° F. with generalized body aches and headache persisted. Investigation included multiple cultures off antibiotics, serial chest x-rays, culture of sputum for acid-fast bacilli as well as gastric washings, urine, and bone marrow; a variety of radiologic and radionucleotide procedures, multiple skin tests (the patient was anergic), bone marrow and liver biopsies, and a therapeutic trial of antituberculous drugs. Fever persisted; the patient lost weight and appeared increasingly toxic. Finally, because of a Wintrobe ESR of 45, temporal-artery biopsy was done, and was interpreted as consistent with temporal arteritis. Prednisone therapy resulted in resolution of fever and body aches and the patient was able to leave the hospital. Two weeks later she came to the emergency room and suffered a cardiac arrest. Permission for postmortem examination was refused.

Comment. This patient presented another aspect of the disease: constitutional illness without specific symptoms or physical findings.[5] Clearly, TA should be in the differential diagnosis of fever of unknown origin in the elderly.[6] Petersdorf and Beeson[7] found two cases in their classic review of fever of unknown origin, although they required palpably abnormal temporal arteries or visual findings for suspicion of the diagnosis. This patient would not have been suspected to have TA by those criteria.

Case 4. This patient was first seen in August, 1976, at the age of 80, complaining of right shoulder pain for one month. An injection of steroids in the bicipital groove resulted in improvement, but soon after she developed stiffness and soreness in both shoulders. X-ray films showed calcific tendonitis; repeat injection of the right shoulder again yielded improvement. Over the next several months she continued to be bothered by varying degrees of pain and stiffness in both shoulders and also the right hip. Treatment with indomethacin (Indocin) and ibuprofen (Motrin) yielded slight improvement; the patient had a severe allergic reaction to phenylbutazone (Butazolidin). Laboratory work showed a hematocrit of 34, hemoglobin 11.3, Wintrobe ESR 55, corrected for hematocrit to 37, slightly elevated alpha globulins, and normal liver function studies. X-ray films of her hips showed bilateral degenerative osteoarthritis.

A diagnosis of polymyalgia rheumatica was first entertained in April, 1977, and the patient was started on prednisone, 40 mg. daily. She had marked improvement, and the prednisone dosage was gradually tapered. In June, 1977, she began to complain of increasing pain in the left lumbar area and had increasing difficulty walking. X-ray film of the left hip now showed aseptic necrosis of the femoral head. Prednisone was gradually withdrawn over the next few months, but the patient had continued severe pain and disability related to her left hip. Finally in October, 1978, she underwent total left hip replacement.

Postoperatively the patient did very well, and was ambulatory with minimal discomfort. In November, 1979, the patient first complained of headache in the frontal and temporal regions, accompanied by pain on the left side of her jaw when chewing meat. There were no visual symptoms. Both temporal arteries were slightly tender to palpation but were otherwise normal. The hematocrit was 30 and the Westergren ESR was 98. Biopsy of a temporal artery confirmed the presence of vasculitis. Treatment again with prednisone resulted in immediate relief of the headache.

Comment. This woman is illustrative of the often close relationship between TA and PMR. Symptoms of PMR started in August, 1976; she had no symptoms of TA until November, 1979, at a time when her PMR had apparently resolved. It would have been interesting to know whether her temporal arteries showed pathologic changes when the PMR was first diagnosed; one series reported one third of such patients had positive biopsies.[5]

And again we have a living warning of the potential harm done by steroid therapy, as illustrated by the development of aseptic hip necrosis, necessitating eventual total hip replacement.

Case 5. This 61-year-old woman was well until August, 1979, when she began to complain of frontal and temporal headaches, aching in the shoulders and thighs, and peripheral visual disturbance in the right eye. She saw an ophthalmologist who found a flame hemorrhage in the right eye. Westergren ESR was 76 and she was started on prednisone with relief of symptoms. Temporal-artery biopsy after one week on prednisone was negative. Symptoms recurred when prednisone dosage was tapered to 20 mg. The patient was troubled by weight gain and facial puffiness.

Intermittent visual symptoms continued, and headaches recurred. Further subsequent ophthalmologic investigation several months later with a computed tomography scan of the orbit revealed an olfactory meningioma compressing the right optic nerve. Surgery resulted in complete relief of her symptoms.

Comment. This patient did not have a pathologic diagnosis of temporal arteritis. As pointed out in the literature, skip lesions do occur and temporal arteritis can be present without abnormalities on a single biopsy.[4] However, in the presence of a normal biopsy, the diagnosis should remain suspect; perhaps repeat biopsy of the other side is warranted.[1]

Following is another patient whose temporal-artery biopsy was negative.

Case 6. This 64-year-old male was seen by a neurosurgeon in 1972 because of pain in the hips and shoulders. A diagnosis of polymyalgia rheumatica was made after findings of elevated ESR and absence of myositis on muscle biopsy. He was treated with prednisone with improvement. Subsequently he developed symptoms of peripheral vascular insufficiency and underwent a right femoral endarterectomy.

In February, 1977, he developed pain behind the left eye, temporary sudden blindness of the left eye, and jaw claudication. TA was diagnosed despite a negative temporal-artery biopsy, and prednisone dosage was increased. He was well except for muscle weakness and cushingoid appearance until early 1979 when he began taking vitamin E and reducing his steroid dosage. By August of 1979 worsening of his left-foot ischemia led to angiography which demonstrated microvascular disease. Sedimentation rate was greater than 100 by the Westergren method. Cryoglobulins were present in low titer. Increase in steroid dosage yielded improvement.

Several weeks later ischemic symptoms worsened and the patient underwent a sympathectomy. A biopsy of an inferior epigastric artery showed marked intimal hyperplasia, without giant cells.

The patient had improvement in the perfusion of his left foot, but several weeks postoperatively developed fever and abdominal pain. Exploratory laparotomy revealed multiple hepatic and splenic abscesses, which on culture grew anaerobic organisms and *Hemophilus influenzae.* A long and stormy course ensued, complicated by pseudomembranous colitis while on antibiotics, as well as worsening ischemia of the left foot when steroids were tapered. In April, 1980, the patient had a below-the-knee amputation of the left foot because of progressive ischemia.

Subsequently the patient has required prednisone in excess of 30 to 40 mg. daily to control the sedimentation rate and prevent ischemic symptoms of the right foot. He has developed a duodenal ulcer and hypertension because of the steroids.

Comment. The diagnosis of temporal arteritis in this patient remains in doubt because of the original negative biopsy, athough the combination of visual symptoms, jaw claudication, previous PMR, and markedly elevated ESR are very suggestive. Rather than being an isolated illness, however, these findings are part of a more severe, unremitting systemic vasculitis with a clearly different and more malignant character. It seems likely that this patient suffers from a systemic vasculitis not clearly classifiable, with TA and PMR as part of its spectrum.

Although this patient has survived high-dose steroids for a number of years (possibly because of his relatively younger age), his treatment has certainly been life-threatening. His unusual infectious complications as well as his peptic ulcer and hypertension are related to steroid treatment.

Case 7. This 77-year-old female was well until November, 1978, when she developed intermittent visual aberration of her right eye described as "water spilled in ink." Symptoms continued for three weeks at which time she saw her ophthalmologist.

Physical examination was remarkable only for a dense left cataract and a poorly reactive right pupil with ecchymosis of the right upper eyelid, of which the patient was unaware. Temporal arteries were normal to palpation. Westergren ESR was 64.

The patient was placed on prednisone 100 mg. per day; biopsy of the right temporal artery revealed giant cell arteritis. She had no further visual symptoms and steroids were gradually tapered over the next twelve months.

During this time, however, the patient's general health declined, and she was admitted to the hospital several times because of pulmonary edema, paroxysmal atrial fibrillation, and recurrent urinary tract infections with pyelonephritis and sepsis.

When steroid dosages below 25 mg. were reached, the patient's sedimentation rate increased markedly, although she had no visual symptoms or headache. Eventually her steroids were tapered to insignificant doses despite her rapid ESR, and her health and strength began to stabilize.

Comment. As with so many elderly patients who develop TA, the disease seems to be part of a process of rapid physical decline. Why the aging process may take the form of a localized vasculitis in some is entirely unclear.

Conclusion

These seven cases are presented in detail because they teach the whole spectrum of temporal arteritis. From the localized inflammation of the temporal artery originally described by Horton, Magath, and Brown,[8] we realize the disease includes sudden visual loss without other symptoms, may appear as fever of unknown origin, and may be part of a systemic vasculitis. Although the diagnosis, once thought of, is relatively easily made, Case 5 is the caveat: beware of the negative biopsy. Being certain of the diagnosis is of vital importance because therapy is life-threatening, especially in the age group involved.

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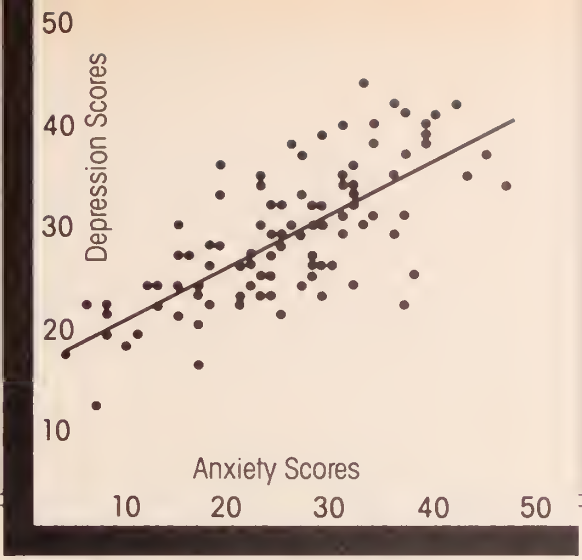
The graph illustrates the close correlation between depression and anxiety derived through the MMPI and the Taylor Manifest Anxiety Scales in 100 nonpsychotic psychiatric patients. The coefficient of correlation is 0.7. As depression increased, so did the anxiety levels.[1]



WHY MORE PHYSICIANS ARE CHOOSING LIMBITROL

t fits the picture of nxiety/depression orrelation

Aost patients with a mood disorder ave a mixture of anxiety and lepression. One clinician[1] found correlation of 0.7 in anxiety and lepression scores; another[2] has stimated that 7 of 10 nonpsychotic lepressed patients are also anxious. or the dual symptomatology of nxious depression, Limbitrol rovides dual medication.

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The causal relationship between the phenothiazines and extrapyramidal side effects, including tardive dyskinesia, is well established. In contrast, the reported incidence of these adverse reactions with Limbitrol or either of its components is rare.

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Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

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because it's specific for anxious depression in the nonpsychotic patient

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Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses Myocardial infarction and stroke reported with use of this class of drugs) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e g , operating machinery, driving)

***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide)

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients Periodic liver function tests and blood counts are recommended during prolonged treatment Amitriptyline component may block action of guanethidine or similar antihypertensives Concomitant use with other psychotropic drugs has not been evaluated sedative effects may be additive Discontinue several days before surgery Limit concomitant administration of ECT to essential treatment See Warnings for precautions about pregnancy Limbitrol should not be taken during the nursing period Not recommended in children under 12

In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects

Adverse Reactions: Most frequently reported are those associated with either component alone drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs

Cardiovascular Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke

Psychiatric Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido

Neurologic Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns

Anticholinergic Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract

Allergic Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus

Hematologic Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia

Gastrointestinal Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue

Endocrine Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels

Other Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling

Overdosage: Immediately hospitalize patient suspected of having taken an overdose Treatment is symptomatic and supportive I V administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning See complete product information for manifestation and treatment

Dosage: Individualize according to symptom severity and patient response Reduce to smallest effective dosage when satisfactory response is obtained Larger portion of daily dose may be taken at bedtime Single *h s* dose may suffice for some patients Lower dosages are recommended for the elderly

Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required Limbitrol 5-12 5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue film-coated tablets, each containing 5 mg chlordiazepoxide and 12 5 mg amitriptyline (as the hydrochloride salt) - bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50

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Month in Washington

Within a span of seven days in May the Administration achieved an historic triumph in Congress, with the House and then the Senate approving budget resolutions to cut federal spending by more than $40 billion.

The serious opposition to the economy drive came in the House where the Democratic leadership made a party issue of a substitute budget plan that would not have cut so deeply. More than $2 billion of health program reductions would have been restored under the Democratic budget, but the Republican plan hewing to the Administration's lower levels easily prevailed, 253 to 176.

The Senate followed suit the following week with a budget resolution tailored to the Administration's specifications. A conference committee has ironed out the relatively minor differences between the two measures.

Only 18 Democrats and two Republicans resisted the economy wave in the Senate as the Administration plan sailed through 78–20. Among those voting for the measure was Senate Democratic leader Robert Byrd (D., W.Va.). Senate Budget Committee Chairman Pete Domenici (R., N.M.) said the vote "clearly indicates the Senate is prepared to change its spending habits . . . Over the long run we have started a trend toward fiscal sanity."

Before the final vote, the Senate buried, 81 to 17, a proposal by Senator Donald Reigle (D., Mich.) to pare defense spending by $2 billion and increase social program spending the like amount.

As a result of the actions, the committees of Congress are now forced to review their legislative agendas to decide where programs must be cut in order to conform to the spending ceilings imposed by the resolution.

The Democratic budget plan that foundered in the House would have forestalled the two major reductions in health sought by the Administration—the five percent "cap" on federal Medicaid contributions next fiscal year and the block grant, 25 percent funding cut plan for Public Health Service categorical grant programs. The alternate budget also proposed continuation of two health programs marked by the Administration for phasing out—Health Planning and PSRO (Professional Standards Review Organization).

The Senate Finance Committee moving to cut programs within its jurisdiction, approved major changes in health programs. The committee voted to cut Medicaid spending next fiscal year by $800 million by reducing the federal minimum contribution to the states to 40 percent from the present 50 percent. At the same time, the "cap" on increased federal outlays for the program was lifted to nine percent.

The committee also raised the Medicare Part B deductibles and premiums, reduced the Medicare nursing differential from the present 8.5 percent to 4.5 percent, and made retired federal employes' private health insurance pick up the tab first before Medicare kicked in. Some $1.2 billion of Medicare spending would be saved.

The House Ways and Means Health Subcommittee is considering similar legislation.

The House budget vote was preceded by intense lobby-

continued on page 1280

Asymptomatic Diabetic Females

Exercise testing

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Seventeen diabetic females (mean age 39.6 plus or minus 9 years) and nine healthy women (mean age 38 plus or minus 5.2 years) exercised on a motorized treadmill according to Bruce protocol. Standard 12-lead electrocardiograms were recorded every minute during exercise and at three, five, and eight minutes postexercise. Blood pressures, oxygen consumption, and LVET (left ventricular ejection times) were also determined. The increase in heart rate was greater in normal women than in diabetic females (98.2 plus or minus 17.1 versus 85.7 plus or minus 11.2 beats per minute): the duration of exercise was longer in the former group 578.7 plus or minus 100.3 sec.) than in the latter group (455.0 plus or minus 122.7 sec.): the estimated oxygen consumption was higher (33.4 plus or minus 5.6 ml. oxygen per kilogram per minute) in the normal than in the diabetic subjects (26.5 plus or minus 6.9 ml. oxygen per kilogram per minute). Eight members of the diabetic group and two healthy women developed significant ST-segment depressions on exertion or in the postexercise period. All the diabetic females with abnormal electrocardiogram results were over 38 years of age. The decreased increment in heart rate, decreased exercise performance, and higher incidence of ST-segment depressions may presage the development of clinical heart disease secondary to myocardial dysfunction or to coronary artery disease. We suggest that long-term serial studies may identify subjects at risk for the development of cardiovascular disease in this highly susceptible population.

Coronary artery disease is the leading cause of death in diabetic patients. According to previous investigators, more than half the deaths in subjects whose disease began after the age of 20 years could be attributed to a coronary event.[1,2] In the diabetic subject under 40 years of age, significant coronary arteriosclerosis is not infrequent, especially after the disease has been present for many years. However, the concept that the pathologic condition of the major coronary arteries is entirely responsible for the higher mortality rates reported in diabetic patients has been challenged.[3,4] Pathologic changes in the smaller arteries have been implicated in the production of myocardial dysfunction. In a recent report, intimal proliferation was observed in the intramyocardial arteries (obtained from biopsy material) in eight patients with diabetes mellitus who had cardiac failure or angina.[5] Furthermore, in the Framingham study it was postulated by Kannel et al. that congestive cardiac failure in diabetic subjects could not be entirely attributed (on a statistical basis) to such established entities as hypertension or disease of the major coronary arteries[6]; a primary myocardial disease was implicated. Despite the controversy surrounding the pathogenesis of cardiac disease in these patients, the process is far advanced when it becomes clinically manifest.

Females below the age of 55 years are relatively immune to this pathologic process except for those with diabetes mellitus who face the same risk as does the male.[2] We, therefore, sought to detect latent disease in this susceptible group of women by employing maximal treadmill exercise tests to assess their response to this form of stress.

Patient material

There were 17 diabetic females 25 to 52 years of age (mean 39.6 plus or minus 9 years) who gave informed consent to participate in this study. They were selected from patients attending the metabolic unit of the Philadelphia General Hospital after a careful search of their records and personal interviews disclosed no evidence of cardiac symptoms or any signs of myocardial disease, hypertension, and neuropathic or myopathic conditions. Their chest x-ray film and electrocardiogram test findings were normal. Patients with a history of angina or prior myocardial infarction were excluded. Pertinent clinical data appear in Table I. There were nine healthy female volunteers, ages ranging from 27 to 46 years (mean 38 plus or minus 5.2 years), who also agreed to be tested. These were nursing students who had recently enrolled in the program and who were formerly housewives engaged in activities similar to those of the diabetic females.

At the time of the investigation, 10 diabetic subjects were well controlled (fasting blood sugar under 200 mg. per deciliter, 5 were under fair control (200 to 300 mg. per deciliter), and 2 were poorly

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TABLE I. Clinical characteristics of 17 diabetic females

Case Number	Age (years)	Body Surface Area (square meters)	Duration of Diabetes (years)	Medication	Family History	Fasting Glucose	Blood pressure (millimeters mercury)	
							Systolic	Diastolic
1	25	1.36	2	48 u. NPH (AM)	P	128	100	70
2	25	1.9	10	35 u. NPH (AM)	P	188	110	60
3	27	1.64	20	35 u. NPH (AM) 25 u. NPH (PM)	P	600	125	80
4	28	1.9	16	35 u. NPH (AM)	P	286	100	60
5	34	1.74	1	43 u. NPH (AM)	P	96	110	55
6	36	2.14	10	44 u. NPH (AM)	P	227	105	70
7	38	1.84	4	24 u. NPH (AM)	P	224	115	75
8	41	2	4	44 u. NPH, 10 u. regular (AM) 12 u. NPH, 4 u. regular (PM)	P	81	125	60
9	42	1.83	3	Chlorpropamide diabenese, one tab. daily	N	185	120	85
10	43	1.90	7	26 u. NPH (AM)	P	182	115	60
11	44	1.46	16	24 u. NPH, 4 u. regular (AM)	P	190	135	80
12	45	1.52	22	28 u. NPH (AM), 10 u. NPH (PM)	P	60	130	70
13	47	1.92	13	14 u. NPH + 16 u. regular (AM) 6 u. NPH + 4 u. regular (PM)	N	339	125	65
14	49	1.76	5	57 u. NPH (AM), 10 u. regular	P	243	115	70
15	49	1.56	2	Chlorpropamide, 2 tab. daily	P	140	120	60
16	49	1.72	18	Diet	P	221	125	85
17	52	1.88	3	20 u. NPH (AM)	P	129	125	70

NPH = neutral protein Hagedorn insulin; P = positive; N = negative.

controlled (over 300 mg. per deciliter) as seen in Table I.

There were 11 of the 17 diabetic females (64 percent) and three of nine normal control subjects (33.3 percent) who were obese (20 percent or more above ideal body weight).

Exercise protocol

The subjects were in the postabsorptive state and had received no insulin or hypoglycemic agents for eight hours prior to testing, nor had they smoked or taken any other medication for that period. Exercise was conducted on a motor-driven treadmill in multiple stages to maximum effort according to the Bruce[7] protocol. Standard 12-lead electrocardiograms were obtained at supine rest, after 30 seconds of hyperventilation and during quiet standing. During exercise, these recordings were made at one-minute intervals and at three, five, and eight minutes in the postexercise period. Oxygen consumption was determined in 13 diabetic females and eight healthy subjects with a metabolic apparatus (Beckman), calibrated for accuracy with a Scholander[8] unit, and equipped with an automatic calculator.[9] Blood pressures were obtained with a variable sensitivity pressurometer (Avionics Model 1905) because we have found that standard cuff measurements were unreliable during maximum exertion: the Korotkoff sounds become inaudible due to high treadmill noise and excessive arm motion. Despite these precautions, maximum systolic pressure could not be recorded in one patient, and maximum diastolic pressure in two. Readings with this apparatus were compared with those obtained with a conventional sphygmomanometer during the early stages of exercise and in the immediate postexercise period, and were found to agree within 5 mm. Hg.

The electrocardiogram findings were considered to be positive when there was a horizontal or downsloping ST-segment depression of 1 mm. or more 0.08 seconds after the J point during or after exercise or both.

LVET (left-ventricular ejection time)

LVETs were determined in 15 diabetic females and in 9 healthy subjects from the first derivative of an ear densitogram recorded with an LVET (Collins) monitor equipped with a photoelectric earpiece and a modifying circuit and power supply; this method has been described by Quarry-Pigott, Chirife, and Spodick.[10] Recordings were made at 50-mm. paper speed at rest, in the supine and standing positions, and in the first minute of each three-minute stage of graded exercise. (Xenakis, Quarry, and Spodick[11] demonstrated that with each increment in work load, a rise in LVET occurred with the first 10 beats and then remained stable for that work load.)

The following measurements and calculations were made:

1. Predicted $\dot{V}O_2$ max (maximal oxygen consumption), in milliliters per kilogram per minute, was derived from the formula for sedentary females: 41 to 0.343 (years of age).[12]
2. FAI (functional aerobic impairment) =

$$\frac{\text{Predicted } \dot{V}O_2 \text{ max} - \text{observed } \dot{V}O_2 \text{ max}}{\text{Predicted } \dot{V}O_2 \text{ max}} \times 100^7$$

3. Estimated $\dot{V}O_2$ max (milliliters per kilogram per minute) = .056 × duration of exercise in seconds plus 1.06[7]

4. Myocardial oxygen uptake has been reported to correlate with the PRP (pressure rate product).[13-15] We, therefore, derived this value from the product of maximal heart rate in beats per minute and maximal systolic blood pressure in mm. Hg (PRP max). Predicted PRP max was obtained from the formula 364-0.58 (years of age). TTI (time tension index) was calculated from the product of the maximal heart rate, maximal systolic blood pressure, and the maximal ejection time (in tenths of a second).

5. The LVET was measured from the rapid upstroke of the first derivative of the ear densitogram to the dicrotic notch (from the mean of five beats).

A correction of the LVET for heart rate to obtain LVET I (index) was made by two methods:

1. Using the formula suggested by Spodick and Quarry-Pigott[16] (1.2 times heart rate plus observed LVET) for both the preexercise and the maximal heart rates with exercise.
2. Correcting the preexercise LVET by the Lance and Spodick[17] and Spodick and Quarry-Pigott[16] methods for resting rates (1.8 times heart rate plus observed LVET) and for the rate at the maximal exercise by the formula (1.2 times heart rate plus observed LVET).

Blood glucose was determined immediately before and after exercise by the Hoffman[18] modification for technicon analyzer.

Statistical data were subjected to an unpaired t (student test of significance) test and calculated on a computer (TPD 10).

Results

Exercise was terminated in all instances because of fatigue of the leg muscles. No subject developed chest pain or serious arrhythmias.

Heart rate. The maximum heart rate for the diabetic subjects was less than that for the healthy control subjects, but the difference did not reach a level of statistical significance; however, the increment in heart rate was greater in the latter than in the former group (p less than 0.05), as demonstrated in Tables II and III and Figure 1.

Blood pressure. The rise in systolic pressure was greater in the diabetic females (79.4 plus or minus 19.3 mm. Hg) than in the normal women (70.5 plus or minus 9 mm. Hg), but the difference was not significant. The maximum systolic pressure in the former group was 198 plus or minus 20.2 mm. Hg, and in the latter group it was 188.8 plus or minus 24.6 mm. Hg (Tables II and III and Fig. 1).

A higher diastolic pressure at maximum effort in the diabetic subjects was also not statistically different.

PRP (pressure rate product). The PRP of the diabetic females was 324.4 plus or minus 35.7 units versus 323.8 plus or minus 49.5 units for the healthy control subjects. The triple product was 6,776.1 plus or minus 694.4 units for the former group versus 6,733 plus or minus 808.5 units for the latter group. There were no significant differences in these parameters.

($\dot{V}O_2$ max) maximal oxygen consumption. The $\dot{V}O_2$ max was measured in 13 of 17 diabetic and in 8 healthy subjects. This observed $\dot{V}O_2$ max was lower (25.5 plus or minus 6.2 ml. per kilogram per minute in diabetic than in normal women (29.4 plus or minus 7 ml. per kilogram per minute), but the difference was not statistically significant. However, estimated $\dot{V}O_2$ max was significantly lower in the diabetic patients (26.5 plus or minus 6.9 ml. per kilograms per minute) than in healthy females (33.4 plus or minus 5.6 ml. per kilogram per minute) p (less than) .025

TABLE II. Exercise performance in nine healthy control females

Case Number	Age	Maximal Heart Rate (beats per minute)	Δ Heart Rate (beats per minute)	Maximal Systolic Blood Pressure (millimeters mercury)	Δ Systolic Blood Pressure (millimeters mercury)	Duration Exercise (seconds)	Estimated Oxygen Consumption (milliliters per kilogram per minute)	Actual Oxygen Consumption (milliliters per kilograms per minute)
1	27	175	98	210	95	621	35.7	28.7
2	34	184	112	220	110	590	34.1	28.1
3	36	175	99	190	65	49	28.5	24.4
4	39	190	117	175	65	598	34.5	46.1
5	39	156	85	155	35	611	35.3	30.3
6	40	175	83	160	30	567	32.8	31.7
7	40	143	78	210	90	380	22.3	21.9
8	42	175	107	170	40	750	43.6	...
9	45	170	118	210	105	600	34.7	28.5
Mean	38	171.4	98.2	188.8	70.5	587.7	33.4	29.4
± SD	5.2	14.2	17.1	24.6	9	100.3	5.6	7

Δ = change; SD = standard deviation.

TABLE III. Exercise performance in 17 diabetic females

Case Number	Age	Maximal Heart Rate (beats per minute)	Δ Heart Rate (beats per minute)	Maximal Systolic Blood Pressure (millimeters mercury)	Δ Systolic Blood Pressure (millimeters mercury)	Duration Exercise (seconds)	Estimated Oxygen Consumption (milliliters per kilograms per minute)	Actual Oxygen Consumption (milliliters per kilograms per minute)
1	25	176	104	180	78	780	44.8	37.9
2	25	176	104	235	125	566	32.8	37.6
3	27	156	98	200	75	480	27.9	25.3
4	28	167	76	. . .	. . .	351	20.7	24.7
5	34	167	92	175	60	576	33.3	. . .
6	36	162	78	190	85	332	19.7	22
7	38	172	92	165	50	302	17.9	20.1
8	41	156	79	200	75	390	22.9	20.9
9	42	175	83	200	80	437	25.5	20.5
10	43	175	83	178	63	408	23.9	25
11	44	150	82	200	65	555	32.1	30.6
12	45	160	76	200	80	510	30	20.6
13	47	169	66	235	110	317	18.8	. . .
14	49	156	84	220	105	444	25.9	26.6
15	49	175	101	180	70	450	26.3	25.4
16	49	150	78	210	75	510	29.6	. . .
17	52	150	75	200	75	327	19.4	. . .
Mean	39.6	164.2	85.7	198	79.4	455	26.5	25.5
± SD	9.2	9.9	11.2*	20.2	19.3	122.7†	6.9†	6.2

Δ = change; SD = standard deviation.
* $p < 0.05$; † $p < 0.025$.

TABLE IV. Comparison of LVET and indices in 15 diabetic women and 9 healthy subjects

Subjects	Initial HR* (beats per minute)	Final HR (beats per minute)	Initial LVET I (1.2 × hour) (milliseconds)	Initial LVET I (1.8 × hour) (milliseconds)	Final LVET I (1.2 × hour) (milliseconds)
Control	72.8 ± 8.33†	173.4 ± 13.8	364.9 ± 19.9	408.5 ± 23.3	410.6 ± 18.5
Diabetic	80.7 ± 13.2	165.6 ± 8.9	359.5 ± 15.4	408.5 ± 17.7	407.6 ± 18.5

HR = Heart rate.
* Standing.
† Standard deviation.

(Tables II and III).

FAI (functional aerobic impairment). The diabetic females had a significantly greater FAI (plus 5.9 plus or minus 18.9 percent) than did the normal subjects (minus 18 plus or minus 18.9 percent) when their estimated $\dot{V}O_2$ max was compared (p less than 0.05). Although the FAI of the former group (plus 6 plus or minus 18.1 percent) was higher than that of the healthy control subjects (minus 6.8 plus or minus 27.6 percent), when actual $\dot{V}O_2$ max was used as the basis of the computation, the difference was not significant. This may reflect the large intragroup variations. However, the only healthy subject for whom actual $\dot{V}O_2$ max was not determined (Case 8) was the female with the highest estimated $\dot{V}O_2$ max (43.6 ml. oxygen per kilogram per minute). Had she been included in the computation of actual $\dot{V}O_2$ max (as she was in the estimated $\dot{V}O_2$ max), a similar difference between the two groups might have been apparent. (There was close agreement between the

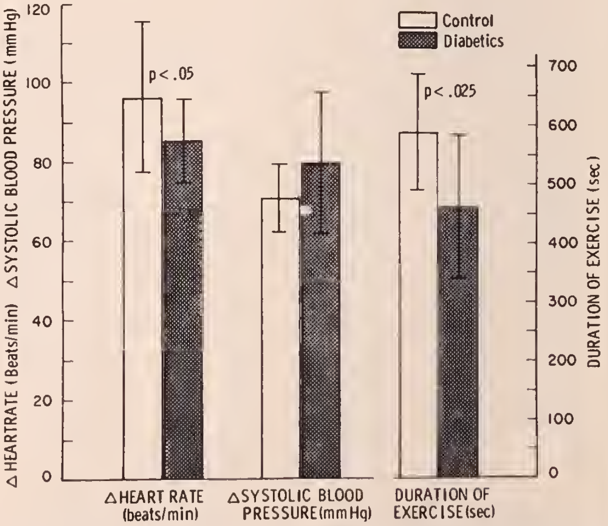

FIGURE 1. Increments in systolic blood pressure, heart rate, and duration of exercise in both diabetic and healthy control subjects.

estimated and actual VO_2 max for the diabetic females but not for the healthy control subjects.)

Duration of exercise. The exercise performance of the diabetic patient was significantly less (455 plus or minus 122.7 sec.) than that of subjects with normal glucose tolerance (578 plus or minus 100.3 sec.) (p less than .025), as demonstrated in Tables II and III. The obesity of the diabetic patients could have contributed to their limited exercise capacity. However, we selected control subjects who were also overweight and, therefore, we do not consider this obesity to have been the determining factor.

Electrocardiography. Analysis of the exercise electrocardiogram results revealed that five diabetic women and two control females developed significant ST-segment depressions on exertion; one diabetic patient developed these changes only in the postexercise period, and two on exercise and into the postexercise period. There were, therefore, eight who tested out positive (47 percent) in the diabetic group and two in the healthy female group (22.2 percent). All but one of the diabetic women who developed these changes were over 38 years of age.

Arrhythmias were observed in four diabetic patients (Cases 2, 3, 5, and 17), but consisted of isolated premature ventricular systoles (in one case there were also isolated atrial premature systoles). One control subject had premature atrial and ventricular systoles and one had only premature ventricular systoles.

LVET (left-ventricular ejection time). The LVET and LVET Is were similar for both groups at rest and at maximum stress (Table IV). Utilizing the formula 1.2 times heart rate plus observed LVET for both resting and maximum ejection times to adjust for the accelerating rate[16] resulted in a small but significant rise in LVET with exercise. However, when adjustments were made for the lower rate at rest (1.8 times heart rate plus LVET) and the marked increase with exercise (1.2 times heart rate plus LVET), by separate formulas as suggested by Lance and Spodick,[17] the left-ventricular ejection time remained essentially stable. With either method, the diabetic and normal females responded similarly.

Blood glucose. Only a slight decrease in blood glucose level was observed in the diabetic subjects (201.7 plus or minus 133 mg. per deciliter preexercise to 197.5 plus or minus 119.9 mg. per deciliter postexercise).

Comment

Atherosclerosis not only develops at an early age in diabetic persons, but it affects both sexes equally.[1,2] At the time that coronary artery disease becomes apparent and the patient experiences angina pectoris or has a myocardial infarction, there is advanced disease, since the early stages are silent. Moreover, it has been postulated that even in the absence of disease of the major coronary arteries, cardiomyopathy or disease in the smaller arteries may develop in these diabetic subjects.[3–5] Therefore, it is important to design a method of discovering cardiac disease at an earlier stage of development; thus, exercise testing may be such a method.

At rest, the diabetic subjects had no apparent cardiac disease. However, during exercise, there were demonstrable differences between the response of patients with diabetes and that of healthy control subjects. The increment in heart rate between the resting level and that observed at maximal exertion was less in diabetic persons than in normal subjects. In a previous study involving both male and female diabetic persons, this same finding was observed during exercise on a bicycle ergometer.[19] Exercise performance in the diabetic female was impaired in the present study; the duration of exercise was 455 plus or minus 122.7 sec. in the diabetic and 578.7 plus or minus 100.3 sec. in the healthy subjects. (Decreased exercise tolerance was also found in the prior investigation.)[19] Although the actual $\dot{V}O_2$ max oxygen determined with the Beckman apparatus was decreased in females with diabetes, it did not reach statistical significance. However, the estimated $\dot{V}O_2$ max was significantly lower and the functional aerobic impairment greater in diabetic persons. The FAI is not only a measure of the duration of exercise, but it also reflects the performance of these women compared with that of a group of women of comparable age. Bruce[7] and others[12,20] have stressed the importance of endurance in differentiating subjects with and without coronary artery disease.

The LVET indices for both groups were similar. Both exhibited an increase in LVET I when adjusted for heart rate according to the formula suggested by Spodick and Quarry-Pigott.[16] This is consistent with an increase in stroke volume during upright exercise that could be secondary to the Frank-Starling effect as observed in a recent study using radionuclide angiography during exercise.[21] If the LVET was corrected using separate formulae for the lower rates in the resting state (1.8 times heart rate plus observed internal) and 1.2 times heart rate plus observed interval at the higher rates of maximal stress,[17] no significant rise was observed. This could occur if stroke volume did not rise with exercise or if the volume was ejected more rapidly under the influence of a heightened inotropic effect of sympathetic drive on the myocardium. In either instance the systolic time intervals were similar in both the diabetic females and healthy women. This is in contrast with a recent report by Ahmed et al.[22] in which a decreased LVET was observed at rest in diabetic subjects, but was consistent with another study in which normal left-ventricular ejection times were reported in diabetic persons of both sexes.[23]

The high incidence of ST-segment depressions that developed during the exercise and postexercise period in 47 percent of diabetic women, compared with 22.2 percent in healthy females, may indicate that there is latent coronary disease in the former group. However, Lepeschkin and Surawicz[24] observed such ST depressions in 29 percent of women aged 30 to 45 years, and in a striking number (53 percent) of women over the age of 55 years; moreover, other authors[25–27] have confirmed these findings. Profant et al.[25] found ST depressions in 33 percent of females; Cummings et al.[26] observed that 25 percent of women in the 20 to 39-year-old age group and 50 percent of those in the 40 to 59-year-old group demonstrated these changes with bicycle exercise. However, coronary angiography was not performed. In 133 patients with angiographically proved normal coronary arteries studied by Bartel et al.,[27] there were 11 false positive-test findings; 6 occurred in women. These findings admittedly complicate the diagnosis of coronary artery disease in females. However, Linhart, Laws, and Satinsky[28] found that by excluding female subjects who had received medications such as digitalis or methyldopa, and by eliminating those with abnormal resting electrocardiogram findings, the incidence of false positive-test results decreased to 1 out of 18 subjects tested; this compared with 11 false positive- and 7 false negative-test results in 40 patients when those with abnormal resting electrocardiogram findings and drug therapy were included. The predictive value of the test was thus substantially improved. None of our patients had abnormal initial electrocardiogram findings or had received any medication other than insulin. Moreover, their blood glucose levels changed very little during exercise (prior studies have implicated hypoglycemia as a source of repolarization abnormalities).[29] It also has been observed that electrocardiographic changes alone are not as effective in the diagnosis of coronary artery disease as is a more comprehensive analysis of the entire response to stress. Lower maximal heart rates and higher levels of FAI also help to identify individuals with coronary disease. For example, Barolsky et al.[30] reported that the duration of exercise was less (3.1 plus or minus 1.8 min.) for females with true positive-test findings than for those with false positive-test findings (5.2 plus or minus 1.5 min.). The discriminant score of the true positive-test findings was raised by including the maximum heart rate and the duration of exercise in the evaluation. Ellestad and Wan[31] indicated that subjects with coronary artery disease had "chronotropic incompetence" and a lower heart-rate response. However, in diabetic subjects another etiologic factor could be implicated in the manifest depression of cardiac rate during exercise. (An association between neuropathic disease and altered heart-rate response to such interventions as Valsalva maneuvers and handgrip has been observed.)[32,33] Beat-to-beat variation in heart rate also has been found to be decreased in diabetic persons.[32,34] Moreover, Hilsted, Galbo, and Christensen[35] have reported abnormal responses to graded exercise in subjects with diabetic autonomic neuropathy. These blunted responses have usually been found in subjects with a severe peripheral neuropathy, which was not present in our patients. However, one cannot exclude autonomic dysfunction with a decreased sympathetic nervous-system drive as a source of these heart-rate disturbances.

An important consideration in evaluating the significance of these findings in diabetic women is the incidence of coronary disease in the population tested. According to Bayes's theorem, the greater the prevalence of disease in the group that is studied, the greater the possibility that a positive-test finding is actually representative of coronary artery disease.[36] In individuals with diabetes mellitus, the incidence of coronary artery disease is higher than in the general population; it is twice as common in diabetic males and is increased threefold in the female. Coronary events have been shown to occur two to three times more frequently in the diabetic group.[20] Moreover, congestive heart failure is a more prominent feature of cardiac disease in diabetic persons. Even in subjects with known ischemic or rheumatic heart disease, Kannel, Hjortland, and Castelli[6] observed that cardiac failure is more prevalent in diabetic persons, and especially so in the female.

We conclude that the lower maximal heart rate, decreased exercise performance, greater functional aerobic impairment, and the higher incidence of ST-segment depressions in the diabetic female than in the normal control subjects may presage the development of clinical heart disease either secondary to myocardial dysfunction or to coronary artery disease. We cannot substantiate these findings with coronary arteriography because this invasive procedure is not feasible on an ethical basis in subjects who are entirely asymptomatic. Exercise testing in conjunction with $thallium_{201}$ scintigraphy may be an effective method of identifying those with latent disease. Unfortunately, it has been observed that these radioisotope studies may be lacking in specificity in females.[37] However, repeated testing over extended periods may provide important information about cardiac disease in female diabetics.

Summary

There were 17 asymptomatic diabetic females aged 25 to 52 years who underwent maximal treadmill exercise testing, compared with 9 healthy female subjects of similar age. They had a smaller increment in heart rate, a shorter duration of exercise, and a lower estimated $\dot{V}O_2$ max (maximal oxygen consumption). Eight had significant ST depressions during the exercise or postexercise period or both (47 percent) compared with an increase of 2 out of 9 (22.2 percent) in control subjects. According to Bayes's theorem, the possibility that these are true positive-test results is high because of the increased prevalence of coronary disease in the population of middle-aged diabetic women. Furthermore, the poorer exercise performance observed in these females would support the hypothesis that these are probably women with coronary artery disease. The role of obesity in this impaired exercise tolerance is probably not significant since the healthy females

were also selected because they were overweight. Long-range follow-up with repeated exercise testing is suggested in this high-risk group to detect coronary disease in its incipient stages.

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Sonographic Appearance of Emphysematous Cholecystitis

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The spectrum of sonographic findings in cholelithiasis, acute and chronic cholecystitis, and gangrenous cholecystitis and empyema of the gallbladder have been described in the recent literature.[1–6] Complications of pericholecystic abscesses and perihepatic fluid collections are also noted.[6,7] Emphysematous cholecystitis is an uncommon but serious form of acute cholecystitis. A single case report describing the sonographic appearance of emphysematous cholecystitis is noted in the recent literature.[8] Both intraparenchymal gas and, more specifically, pneumobilia are recognizable sonographic entities.[9,10] In the past year, we have observed two patients with emphysematous cholecystitis in whom sonography was the initial examination. The sonographic findings in these patients are discussed.

Case reports

Case 1. July 23, 1979, was the first Montefiore Hospital and Medical Center admission of a 75-year-old white diabetic female with nausea, vomiting, diaphoresis, palpitation, and atypical chest pain.

Positive physical findings included an enlarged nodular thyroid and paroxysmal atrial tachycardia. The patient was hospitalized to exclude the possibility of myocardial infarction and for further investigation of her atypical chest pain. On July 31 she developed severe substernal and epigastric pain without electrocardiographic changes, unrelieved by nitroglycerin or antacid. She became febrile to 101.8°F. and also developed right upper quadrant abdominal pain. White blood cell count at the time revealed 16,000 cells with a shift to the left. Her blood sugar was 275 mg. per 100 ml.

A sonogram demonstrated a broad area of acoustic shadowing in the right upper quadrant without definition of a posterior wall of the gallbladder (Fig. 1A). This finding originally raised the suspicion of cholelithiasis. An abdominal film revealed air within the lumen of the gallbladder (Fig. 1B). At operation, an emphysematous gallbladder filled with gas and small bilirubin stones was found. The wall of the gallbladder was friable. Purulent material was present in the abdominal cavity. Her postoperative course was complicated by hypotension and congestive heart failure which was medically managed. She was discharged on August 13, 1979.

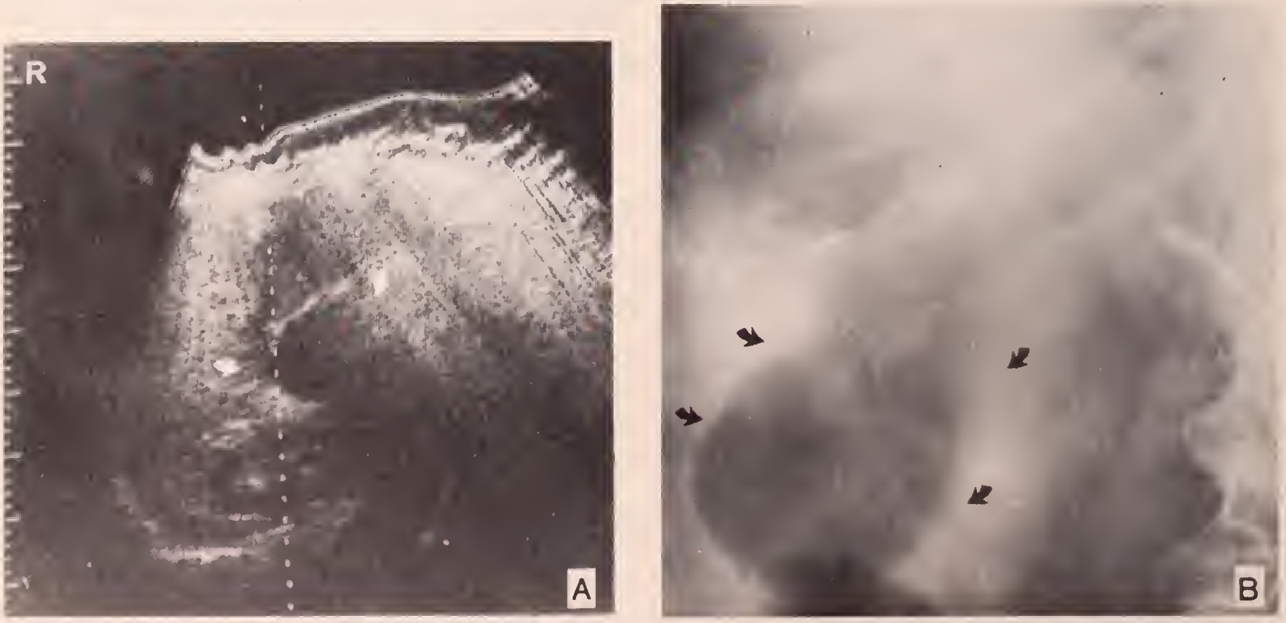

FIGURE 1. (A) Transverse sonogram demonstrates broad area of acoustic shadowing from gallbladder (arrows). No discrete calculi are present (R-right). (B) Cone-down radiograph of right upper quadrant reveals air within gallbladder lumen (arrows).

Case 2. November 4, 1979, was one of multiple Montefiore Hospital and Medical Center admissions for a 78-year-old white male with altered mental status. He had a long history of hypertension and diabetes mellitus controlled by diet.

Past medical history included prostatectomy and surgical excision of a bladder carcinoma followed by radiotherapy treatment. Positive physical findings on admission were related to his altered mental status including right hemiparesis. Blood pressure on admission was 200/130. The hematocrit was 51, indicating dehydration. Urinary glucose was initially 3 plus with positive ketones. Blood sugar levels ranged from 200 to 400 mg. per 100 ml. The patient was febrile to 103°F. and acidotic. His immediate hospital course was complicated by seizures, hypotension, and paroxysmal atrial tachycardia.

Initially, the cause of the patient's sepsis was not determined; he was placed empirically on antibiotics for broad-spectrum coverage. His white blood cell count remained elevated from 13,000 to 17,000 with a shift to the left. On November 7 he began to pass bright red blood per rectum. Endoscopy revealed esophagitis and ulceration in his duodenal bulb. He was also noted to have some right upper quadrant abdominal pain and tenderness not elicited previously. On November 8 an abdominal sonogram revealed a broad band of high amplitude echoes in the right upper quadrant. Acoustic shadowing was noted that was not discrete (Fig. 2A). Differential diagnosis included a porcelain gallbladder and air within the gallbladder bed. An abdominal film confirmed the suspicion of emphysematous cholecystitis (Fig. 2B). A technetium 99m HIDA (dimethyl iminodiacetic acid) cholescintogram revealed nonvisualization of the gallbladder through two hours despite the visualization of the common bile duct and bowel within the first thirty minutes. This finding was diagnostic for acute cholecystitis. At operation on November 8, a gangrenous gallbladder with free pus was noted in the right upper quadrant with air in the lumen and wall of the gallbladder. Postoperative cultures grew clostridia. His postoperative course was again protracted and complicated by varying degrees of altered mental status and fever thought to be pulmonary in origin. He was discharged to the rehabilitation service on December 27, 1979.

The sonographic appearance of emphysematous cholecystitis consists of a constant broad band of high amplitude echoes with "soft" acoustic shadowing emanating from the right upper quadrant. Both the localization of the gallbladder fossa and differentiation from other pathologic processes are discussed. Early diagnosis is imperative due to the high morbidity and mortality rates in these patients.

Comment

Emphysematous cholecystitis is the presence of gas in the lumen and wall of the gallbladder. The etiology is thought to be ischemia which may be secondary to small blood vessel narrowing or compression of blood vessels by gallbladder distention from cystic duct obstruction and cholecystitis. Ischemia facilitates secondary anaerobic bacterial invasion from the gastrointestinal tract by the biliary system, blood, or lymphatics. The most common organisms are *Clostridium perfringens* or *C. welchii* and the aerobe *Escherichia coli*. Less common aerobes are staphylococcus or streptococcus. A complication, pneumobilia, in which patency of the cystic duct allows the escape of gas through the biliary ductal system, is rarely seen.

Unlike the frequent occurrence of acute cholecystitis in females (3 : 1, F : M ratio), emphysematous cholecystitis is more common in males (7 : 3, M : F ratio). The average age incidence is in the sixth and seventh decades. Underlying cholecystitis occurs in only 50 percent of cases but diabetes mellitus is a

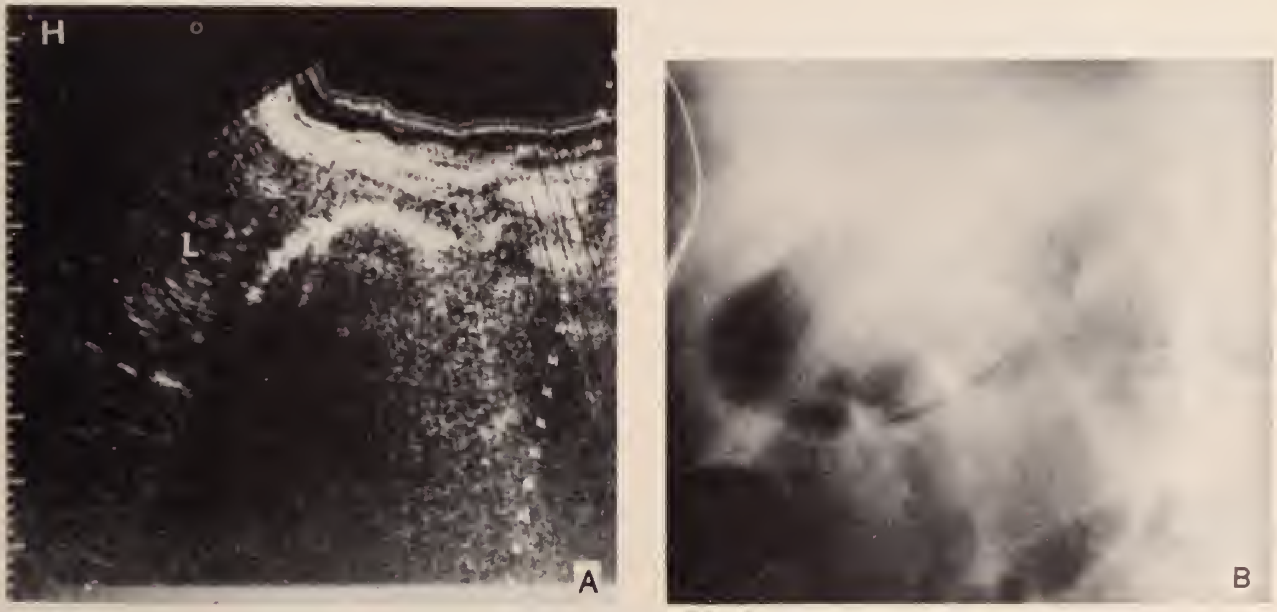

FIGURE 2. (A) Longitudinal sonogram reveals constant broad band of hyperreflective echoes with acoustic shadowing in right upper quadrant (H-head; L-liver). (B) Cone-down radiograph shows air within gallbladder wall and lumen.

common predisposing factor in one third of patients. Early diagnosis is important since complications include gangrene of the gallbladder in 75 percent, perforation in 20 percent, and, rarely, pneumobilia. The mortality rate can approach 15 percent.[11–15]

Sonography is frequently an initial examination for many patients with acute gallbladder symptoms. Clinical symptoms of emphysematous cholecystitis may mimic those of the more common acute cholecystitis and awareness of the sonographic appearance may aid in early diagnosis.

The high sound attenuation of gas and its interference with abdominal scanning are well known. Recent reports concerning parenchymal gas and gas within abdominal abscesses stress the fact that hyperechogenicity may occur without acoustic shadowing. This is throught to be related to the technical error of the "microbubble effect" before coalescence of air occurs. Microbubbles constitute narrow-diameter shadows not imaged because of statistical averaging over a larger beam width.[9,16] In our two patients, larger amounts of gas had coalesced, leading to the more classic reverberation echo pattern with acoustic shadowing. This pattern should be easily differentiated from that described in acute cholecystitis in which the gallbladder wall is densely reflective and sometimes has a lucent rim,[5] or a porcelain gallbladder which may have more sharply defined acoustic shadowing due to sound absorption by calculi.[17] Gas-filled loops of bowel in the right upper quandrant might not be distinguishable sonographically but would probably be less constant. The position of the gallbladder fossa lateral to the quadrate lobe of the liver or the frequent connection of the right or main portal vein to the gallbladder by a portion of the main lobar fissure sagittally[18] should aid in localization of confusing acoustic shadowing. If emphysematous cholecystitis is accompanied by pneumobilia, the associated sonographic findings would be even more diagnostic. Pneumobilia results in discrete areas of hyperechogenicity with acoustic shadowing scattered throughout the liver.[10]

Once the presence of emphysematous cholecystitis is considered sonographically, confirmation of this diagnosis is established by abdominal roentgenogram.

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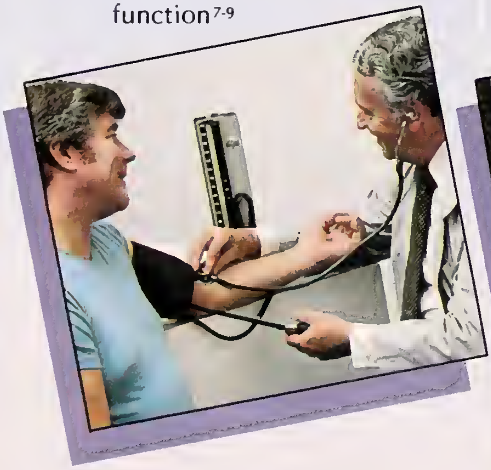

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Blood Counts in the Nonagenarian

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Blood counts were performed on 96 persons, 96 to 106 years of age. The hemoglobin, hematocrit values, white blood count, differential, and blood pressure determinations were performed. The results show a mean hemoglobin value of 12.3 Gm. per deciliter which is lower than the mean value for younger adults. The mean blood pressure is 121/69. The sex and country of birth do not influence findings for hemoglobin, hematocrit, white blood count, differential, or blood pressure.

It is important to know what the normal hemoglobin value is in the aged before a decision can be made if and when treatment is necessary. While it is reasonable to assume that there is declining function of vital organs including the bone marrow with age, no statistically significant data is available to show that this results in a lower normal hemoglobin value.[1] On the other hand, one cannot exclude the possibility that the hemoglobin value might be close to the level present in earlier adult life.

Up to the year 1933, data on normal red cell count and hemoglobin value in men and women was found to be inconsistent by Wintrobe.[2] The 95 percent confidence level is 4.8 plus or minus 0.6 10^6 per microliter for red cells, and 14 plus or minus 2.0 Gm. per deciliter for hemoglobin in the adult female, and 5.4 plus or minus 0.8 10^6 per microliter for red cells and 16 plus or minus 2.0 Gm. per deciliter for the hemoglobin in the adult male.[2]

Shapleigh, Mayes, and Moore[3] reported a mean hemoglobin value of 14.1 Gm. per deciliter in males and 13.7 Gm. per deciliter in females in a population aged 60 to 95 years. Twenty persons aged 85 years or over had a mean hemoglobin of 12.8 plus or minus 1.5 Gm. per deciliter.[4] In another study of 95 males averaging 81 years, the mean hemoglobin was 12.9 plus or minus 1.5 Gm. per deciliter.[5] There is, however, a lack of data on nonagenarians.

Patients and methods

Blood counts were performed on 96 persons, 96 to 106 years of age at the A. Holly Patterson Home for Nassau County Aged and Infirm. The hemoglobin determination, leukocyte count were performed by the Coulter F counter; the hematocrit level was determined by microhematocrit centrifugation.

The percent of segmented neutrophils was counted manually as part of 100 white cells on a Wright-stained peripheral blood smear. The last three blood counts taken, approximately a year apart, were included in the study of those who had lived at the home for more than one year. The blood pressure, sex, and country of birth were also tabulated.

The majority of the persons in the study were in good health and had no physical ailments. There were varying degrees of arteriosclerosis.

Results

The mean hemoglobin value was 12.4 Gm. per deciliter in males and 12.3 Gm. per deciliter in females (Table I). The hematocrit value was 36.7 and 36.4, leukocytes 7,800 10^3 and 7,400 10^3 per microliter, neutrophils 64.3 and 65.0 percent, and blood pressure 118/70 and 125/68 in males and females, respectively. No difference was found in any of the hematologic values between the sexes. The mean hemoglobin for both sexes was 12.38 Gm. per deciliter. The mean blood pressure was 121/69 mm.

Comment

The mean hemoglobin in persons 95 to 106 years of age in a nursing home was 12.38 Gm. per deciliter. The sex or country of origin does not affect the hemoglobin, hematocrit, or white blood count (Table

TABLE I. Mean values between the ages of 95 to 105 years

Procedures	Number		Mean		1 SD	
	Male	Female	Male	Female	Male	Female
Hemoglobin Gm. per deciliter	40	248	12.40	12.27	1.67	1.46
Hematocrit (percent)	39	246	36.7	36.4	4.87	3.94
White blood count 10^3 per microliter	39	247	7.81	7.40	2.26	3.56
Percent segmented neutrophils	39	247	64.3	65.0	13.1	10.8
Blood pressure systolic	13	91	118.1	125.0	20.6	20.4
Blood pressure diastolic	13	91	70.1	67.5	15.1	12.3

TABLE II. Mean values between the ages of 95 and 105 years according to country of birth

Country	Number		Mean		1 SD	
	Hb*	WBC†	Hb	WBC	Hb	WBC
United States, Canada, and Islands	121	123	12.19	7.27	1.48	2.67
Italy	24	24	11.88	6.15	1.55	1.86
Scotland, Ireland, and England	23	20	12.17	6.76	1.50	1.90
Poland and Lithuania	25	25	12.80	7.95	1.33	4.15
Russia and Ukrania	16	16	12.47	6.97	1.25	1.97
Germany, Denmark, Hungary, and Switzerland	26	26	12.45	8.70	1.37	6.73

Hb = Hemoglobin.
† WBC = White blood count.

II). The mean blood pressure in this age group was 121/69 mm.

The study supports the concept that a nonagenarian normally has a lower hemoglobin level than younger adults. It is suggested that a nonagenarian not be considered as being anemic unless the hemoglobin is below 11 Gm. per deciliter.

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Ethics policies for physicians stated in new AMA publication

Quality of life, allocation of health resources, illegal or excessive fees, confidentiality, and informed consent are just part of the issues thoughtfully deliberated by the American Medical Association's Judicial Council in its new publication, *Current Opinions of the Judicial Council of the American Medical Association, 1981.*

Current Opinions relates to the revised Principles of Medical Ethics adopted by the AMA House of Delegates in 1980. *Current Opinions* "are not presented as the sole or only route to medical morality," according to the Judicial Council. *Current Opinions* supersedes all earlier publications of the Judicial Council.

Limited health care resources should be allocated efficiently and on the basis of fair, acceptable, and humanitarian criteria, the Council states. Priority should be given to persons who are most likely to be treated successfully or have long term benefit. Social worth is not an appropriate criterion.

The AMA declares positively that "A physician should not charge or collect an illegal or excessive fee. For example, an illegal fee occurs when a physician accepts an assignment as full payment for services rendered to a Medicare patient and then bills the patient for an additional amount."

The Council states that informed consent is vital to the physician-patient relationship.

"The patient's right of self-decision can be effectively exercised only if the patient possesses enough information to enable an intelligent choice. The patient should make his own determination on treatment. Rational, informed patients should not be expected to act uniformly, even under similar circumstances, in agreeing to or refusing treatment."

In caring for defective infants, the Council declares, the advice and judgment of the physician should be readily available, but the decision whether to treat a severely defective infant and exert maximal efforts to sustain life should be the choice of the parents. The parents should be told the options, expected benefits, risks and limits of any proposed care; how the potential for human relationships is affected by the infant's condition, and relevant information and answers to their questions.

In coping with terminal illness, the Council says, the social commitment of the physician is to prolong life and relieve suffering. Where the observance of one conflicts with the other, the physician, patient, and/or family of the patient have discretion to resolve the conflict.

The booklet may be purchased from: Order Department OP-122, American Medical Association, P.O. Box 821, Monroe, Wis. 53566. Single copies are $4.00.

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Recent Advances in Medicine and Surgery

ROBERT TURELL, M.D., Editor

Management of Bladder Carcinoma

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Bladder carcinoma is the most frequent malignant tumor of the urinary tract, causing approximately 10,000 deaths annually. This article reviews the known and suspected etiologies, methods of detection, current diagnostic, prognostic, and staging investigations, principles and therapeutic alternatives of management, and follow-up methodologies.

Bladder carcinoma is the most frequent malignant tumor of the urinary tract. It is the seventh leading cause of cancer death in males and the thirteenth leading cause of cancer death in females. In 1980 approximately 36,000 Americans will be diagnosed as having carcinoma of the bladder and approximately 10,000 will die of their disease. At the time of diagnosis, 95 percent of patients are over 50 years of age and nearly 48 percent are 70 years or over.[1,2] Seventy-five percent of patients are male. Caucasians are affected more frequently than blacks by a ratio of 4:1. The most common cell type is transitional cell.

Etiology

Various etiologic agents have been described including analine dyes, 2-naphthylamine, xenylamine, and benzidine, some of which are used in the rubber and cable industry. Other reports indicate that tobacco tar, chronic bladder infections, calculus disease, and infestation with *Schistosoma haematobium* have a role in the development of carcinoma of the bladder.[3] Apart from these high-risk groups, it appears that the incidence of bladder carcinoma in the general population is increasing, perhaps in part due to coffee ingestion, artificial sweeteners, phenacetin abuse, various therapeutic agents, and pelvic irradiation.[4] Chronic urinary infection, bladder stones, indwelling catheters, and urinary stasis have been incriminated in causing squamous cell carcinoma. In one study, 10 percent of patients having an indwelling catheter for 15 years or more had squamous cell carcinoma of the bladder.[5] Therefore, it is essential to rule out carcinoma of the bladder in nursing home patients with long-term indwelling catheters who develop hematuria.

Detection

The first sign of this disease in most patients is gross hematuria which usually is intermittent and in many instances delays the diagnosis. About one third of patients appear with symptoms of bladder irritability—frequency, urgency, and dysuria. Thus, any of these symptoms or signs in the elderly patient requires further urologic investigation. Patients in high-risk industries such as the rubber and cable industry should receive periodic urinary cytologic examination.

Diagnosis and staging

The currently recommended procedures for diagnosis and staging of bladder carcinoma are: cystoscopy-panendoscopy with biopsy of the tumor and/or transurethral resection of the tumor into muscle with or without random quadrantic cold cup biopsies; bimanual examination of the pelvis under anesthesia; and excretory urography. It is important to accurately determine if local or distant metastases have occurred because the prognosis and choice of therapy are affected by the stage of the tumor at the time of diagnosis (Table I).[6] Additional staging procedures are: metastatic bone survey; chest tomograms; radionuclide bone, liver, and spleen scan; ultrasonography,[7] and CT (computed tomography).[8] Of occasional value in assessment of bladder tumor invasion are: cystography, hypogastric arteriography, and lymphography. However, frequently pelvic lymphadenectomy is required to accurately stage this

TABLE I. Staging for bladder carcinoma*

Stage (Jewett-Strong-Marshall)	Extent of Disease
	Superficial
0	Ca in situ
	Papilloma
A	Extension not beyond lamina propria
B-1	Invasion into superficial muscle
	Deep
B-2	Invasion into deep muscle
C	Invasion of perivesical fat
	Metastatic
D-1	Invasion of adjacent organs
	Invasion of pelvic lymph nodes
D-2	Invasion of extrapelvic lymph nodes
	Distant metastasis

* After Grossman.[6]

disease.[9] Urinary cytologic examination in patients with hematuria of unknown etiology is highly advisable. In one study, in which tumors were not visible cystoscopically, cytologic examination revealed a 38 percent positive diagnosis for eventual development of visible carcinoma of the bladder.[10]

Treatment

It is essential to carefully evaluate the general health and nutritional status of the patient who has carcinoma of the bladder before selection of therapy because many of these patients are elderly and nutritionally depleted and have associated geriatric illnesses. The therapeutic alternatives for nonmetastatic disease include the following: endoscopic transurethral resection of bladder tumors and/or fulguration of bladder tumors; open loop resection of bladder tumors, open fulguration of bladder tumors; segmental cystectomy, radical cystectomy, total cystectomy; definitive external supervoltage radiation therapy; combination adjuvant precystectomy radiation therapy, and salvage cystectomy.

Endoscopic transurethral resection, fulguration. Endoscopic transurethral resection of bladder tumors is used for diagnosis and therapy of superficial low-stage and low-grade, and some low-stage and high-grade tumors, as well as for control of bleeding in poor-risk patients and patients with advanced disease. Random quadrantic cold cup biopsies adjacent to and at a distance from the tumor are essential to rule out significant field changes such as carcinoma in situ and severe epithelial atypia in other areas of the bladder before transurethral resection of the bladder tumor is chosen as therapy. Fulguration of bladder tumors, without obtaining tissue for histology, is rarely advisable. Patients treated by transurethral resection of low-stage bladder tumors have a five-year survival rate of up to 70 percent. Approximately two thirds of these patients will have subsequent bladder tumors.[11,12]

Open loop resection, open fulguration. Today, these procedures are rarely utilized except for large superficial or multiple tumors, or for control of bleeding in patients who cannot be treated by transurethral resection because of the large size of the tumors, or because the patients are not candidates for segmental or total cystectomy.

Segmental cystectomy. This procedure is sometimes used in patients with a large, solid, low-stage tumor, and, occasionally in patients with a first high-stage tumor located at the dome of the bladder or on the lateral walls in whom no associated epithelial atypia or carcinoma in situ is present on random biopsies, and who are not candidates for transurethral resection or total cystectomy. The five-year survival rate for low-stage bladder tumors is 70 to 80 percent.[13] Presegmental cystectomy low-dose radiation therapy of 1,000 to 2,000 rad over three to five days respectively is currently in vogue to decrease the incidence of extravesical recurrences and abdominal wound implantations following segmental cystectomy.[14]

Radical cystectomy, total cystectomy. Either radical cystectomy, (cystectomy with prostatoseminal vesiculectomy and en bloc removal of pelvic lymph nodes) or total cystectomy (cystectomy with prostatoseminal vesiculectomy), in conjuction with urinary diversion, usually by ileal or colon conduit, are indicated in patients with a reasonable life expectancy with no demonstrable metastasis when the tumor is high grade, with or without muscle invasion, or low grade with muscle invasion, and in patients who fail to respond to conservative management when the lesion is superficial, multifocal, diffuse, or involving the prostatic urethra. The addition of pelvic lymphadenectomy (radical cystectomy) adds little to the operative mortality or morbidity in comparison to total cystectomy; it allows more exact staging, and, perhaps, cures a few patients with positive pelvic lymph nodes.[9] The addition of urethrectomy to either radical or total cystectomy is advisable if the bladder tumor is high grade, multifocal, or in the prostatic urethra.[15,16] Patients with superficial muscle invasion (Stage B-1) who undergo cystectomy have a five-year survival rate ranging between 50 and 63 percent.[4] Patients with deep muscle invasion (Stage B-2) who undergo cystectomy have a five-year survival rate between 9 and 50 percent, and for patients with Stage C disease there is a five-year survival rate ranging between 4 and 20 percent.[4]

Due to widespread use of central venous pressure and intra-arterial pressure monitoring, adequate preoperative hydration and, at times, anticoagulation and digitalization,[17] the operative mortality today is between 1 and 5 percent,[18] and the morbidity rate is also lower than in the past. Today, radical cystectomy is the preferred procedure because of these factors and the role of pelvic lymphadenectomy in staging and because of its potential for cure of some patients with minimal nodal disease.[9] The instillation of formalin intravesically prior to cystectomy has been reported to decrease the incidence of pelvic recurrences.[19]

Because it has been noted that (1) up to 80 percent of patients with carcinoma in situ of the bladder, (2) almost 40 percent of patients with epithelial atypia demonstrate subsequent invasion of the tumor within five years, and (3) 40 percent of all patients with carcinoma in sutu die of their disease, it appears that early aggressive radical therapy with cystectomy is indicated in some of these patients.[20] However, some urologists prefer to treat patients with small, well-demarcated carcinoma in situ with transurethral resection of the bladder tumors, fulguration, and postoperative thiotepa instillation for a minimum of six months, and reserve cystectomy for patients not responding to conservative therapy, or when the lesions are diffuse or involve the prostatic urethra.[21]

Controversy exists regarding the superiority of one-stage or two-stage cystectomy in elderly patients. Some urologists prefer two-stage cystectomy and explore these patients for surgical staging with pelvic lymphadenectomy and perform intestinal conduit diversion at the first stage. At the second stage, cystectomy is performed or definitive radiation is chosen. Because of the lower incidence of complications and mortality in recent years from radical and total cystectomy, and because of the increased cost and prolonged hospitalization required with two-stage cystectomy,[22] only in very selected patients is a two-stage procedure necessary, even in patients over 70 years of age.[23] Such extenuating circumstances might include patients with multiple medical illnesses, severe cardiac disease, marked obesity, and, perhaps, patients with a history of high-dose radiation therapy to the pelvis.

It should be stressed that when conservative measures fail, early aggressive surgery, namely cystectomy and possible urethrectomy, should be performed because patients who develop subsequent invasive tumors might have been cured if a more aggressive surgical approach had been performed earlier. Additionally, it is important to consider the increased longevity of today's elderly when considering cystectomy, in terms of the subsequent quality of life, because with more patients living longer there is more time for metastatic disease to develop. With this in mind, it is believed by some that cystectomy and urinary diversion play a significant role in assuring improved quality of life by obviating recurrent hospitalization for bleeding, obstructive uropathy, infection, and, possibly, bladder contracture in those patients otherwise treated conservatively or with radiation therapy who then develop recurrent or advanced disease.

With present day collaborative efforts available between specialists in anesthesia, internal medicine, and radiation therapy, incidences of many complications of cystectomy have been reduced or eliminated. In addition, many of the aesthetic problems associated with intestinal conduit stomas have been overcome through the services of enterostomal therapists, allowing the majority of operated patients to return to their previous community and family situations. Furthermore, male patients desirous of sexual activity have a choice of implantation of various types of penile prostheses for erectile impotence secondary to cystectomy. These prostheses are well accepted by many of these patients.[24]

Alternatives to surgery. Alternatives to surgical therapy alone are definitive external supervoltage radiation therapy and combination adjuvant precystectomy radiation therapy.

Definitive external supervoltage radiation therapy. In most reported series, external radiation therapy as definitive treatment for invasive bladder carcinoma in doses of 6,000 to 7,000 rad over 6 to 8 weeks has been associated with significantly lower five-year survival rates, ranging between approximately 15 and 30 percent, as compared to combined preoperative radiation and total or radical cystectomy, particularly in patients with invasive tumors of moderate or poor differentiation.[25,26] However, for patients with regional metastases, definitive radiation therapy alone has achieved equal or better results than radical cystectomy without the risk and morbidity associated with such surgery.[27] Following definitive radiation therapy, approximately 50 percent of patients develop transient dysuria, frequency, nocturia, and diarrhea, and between 10 and 20 percent of patients develop major delayed reactions after 6 to 12 months, such as persistent cystitis, intractable hematuria, permanently contracted bladder, ulcerations of the bladder, ileitis, colitis, and prostatitis.

Combination adjuvant precystectomy radiation therapy. Combination adjuvant precystectomy radiation therapy consists of preoperative radiation of between 1,600 and 5,000 rad for four days to seven weeks followed by cystectomy.[25,28–31] The five-year survival rate of patients with invasive bladder carcinoma treated by preoperative radiation and radical cystectomy is between 30 and 60 percent.[25,26,30] Today, it is the preferred method of management of high-stage tumors. The mortality rate is less than 5 percent. It is believed that eradication of tumor in cystectomy specimens in approximately one third of patients receiving precystectomy radiation therapy, significant downstaging of invasive tumors, sterilization of micrometastasis of the lymph nodes, and prevention of tumor spillage from the bladder at the time of surgery are the result of adjuvant preoperative radiation.[31] The complications after cystectomy following preoperative radiation are a moderate increase in the incidence of incisional infections and wound dehiscences. Thus, because of the poor survival and increased complications following unassisted radiation therapy, it appears that this therapeutic modality should be limited to patients not suitable for cystectomy, such as patients in whom the tumor is inoperable or patients who are exceedingly poor risk due to severe medical illness or severe mental or physical limitations. As a result of these observations we have recently started entering

TABLE II. Beth Israel Medical Center bladder tumor combination adjuvant precystectomy radiation therapy protocol

	Short Course	Long Course	"Sandwich Therapy"
Stage	B-1	B-2, C	D-1
Grade	Well or moderately differentiated	Poorly or undifferentiated	Any
CT Scan	No pelvic node involvement	Minimal pelvic nodal metastases	Extensive pelvic disease
Preoperative Radiation Therapy	2,000 rad/1 wk. to pelvis	4,500 rad/4 wks. to pelvis	Initial laparotomy & ileal conduit; then 6,000 rad/5 wks. to pelvis
Delay	None	4 wks.	5–6 wks.
Surgery	Radical cystectomy & ileal conduit	Radical cystectomy & ileal conduit	Radical cystectomy

patients in our institution into a bladder tumor protocol in which patients are segregated into three groups for differing combinations of adjuvant precystectomy radiation therapy based on stage, grade, and CT scan findings (Table II).

Occasionally, radiation therapy or urinary diversion alone can be effectively utilized for palliation of pain or hematuria. It should be recalled that the older poor-risk patients in whom diversion is only a palliative procedure are often candidates for ureterosigmoidostomy, providing certain contraindications are not present.[32] With ureterosigmoidostomy the necessity for a urinary collection appliance and associated management problems, sometimes beyond the capability of the unaided geriatric patient, are obviated.

Salvage cystectomy. If definitive external supervoltage radiation therapy fails, in terms of recurrence or persistence of bladder carcinoma, or if severe incapacitating radiation complications ensue, then salvage cystectomy in many cases can be safely employed. However, it is frequently a more difficult procedure and may carry a mortality rate as high as 25 percent; but a 30 to 50 percent five-year survival can be anticipated after salvage cystectomy.[33] The best results are found in patients undergoing planned preoperative radiation therapy, or who in retrospect were candidates for salvage cystectomy and at cystectomy demonstrated significant down-staging of their tumors.[26,34,35]

Assessing tumor's potential. The problem of determining which noninvasive tumors should be treated aggressively with early cystectomy to prevent subsequent recurrence and/or muscle invasion is a matter of significant clinical importance. At the present time, such evidence is available by random quadrantic cold cup biopsy, the specific red cell adherence test, and chromosome analysis of tumor cells.

Random quadrantic cold cup biopsy at the time of transurethral resection of bladder tumors will document epithelial atypia in 20 percent of patients and occult carcinoma in areas remote from the primary tumor in 10 percent of patients. If serial biopsies at three-month intervals are performed, the yield of epithelial atypia in one year approximates 50 percent, and the yield of occult carcinoma in one year approximates 30 percent. These patients are, therefore, in a high-risk category for subsequent recurrences and/or invasive tumors.[20,36] The specific red cell adherence test correlates the loss of tumor cell surface antigen A, B, or O(H) on the tumor with the subsequent muscle invasion that occurs in approximately 75 percent of such patients.[37,38] Chromosomal analyses of tumor cells revealing a large number of marker, abnormal chromosomes have resulted in subsequent tumor recurrences in a significantly high percentage of patients.[39,40]

Newer treatment modalities. Recently, the following treatment modalities have been advocated for patients with carcinoma of the bladder, but at the present time they have extremely limited clinical applicability. They are: Helmstein's hydrostatic pressure therapy, cryosurgery, transurethral laser irradiation, hyperthermia, and immunotherapy.

Helmstein's hydrostatic pressure therapy. In 1966, Helmstein described the technique of intravesical hydrostatic pressure therapy.[41] This therapy has produced tumor regression and control in a significant number of patients.[42,43] Immunologic effects secondary to this therapy have been noted. However, the final verdict on this procedure's usefulness has not yet been determined.

Cryosurgery. The reported advantages of cryosurgery of bladder tumors are short treatment time and hospitalization, reduced postoperative bleeding, and absence of bladder perforation. In addition, if necessary, subsequent transurethral resection of residual bladder tumor can be performed. The significant disadvantages of this therapy are that a suprapubic trocar is needed for simultaneous cystoscopy, and, frequently, repeated freezings are required.[44]

Transurethral laser irradiation. Transurethral laser irradiation of bladder tumors is not widely used today, primarily due to the high cost and limited technical availability of specialized equipment. However, the reported advantages are lack of bleeding, deep tumor destruction without perforation of the bladder, and short postoperative time for bladder drainage.[45]

Hyperthermia. Hyperthermia with saline may have a valuable but limited role in managing bladder carcinoma. The advantages are that it may destroy tumor without interfering with potency in males, and it may stop bleeding secondary to bladder tumors.

In a very few high risk patients it may be preferable to cystectomy. The disadvantages are that urinary diversion is required.[46,47]

Immunotherapy. Immunotherapy with intradermal Bacillus Calmette-Guerin vaccine and intravesical irrigation has been noted to decrease the frequency of tumor recurrence.[48]

Systemic chemotherapy. Until recently no systemic chemotherapeutic agent could be demonstrated to have a significant effect on bladder carcinoma. However, cis-discholorodiammine platinum (II)(cis-platinum) has produced partial or complete remissions of short duration in approximately 50 percent of patients, and it is considered the most effective drug available today for the systemic chemotherapy of bladder carcinoma after radical cystectomy with or without preoperative radiation therapy.[49,50] Other less effective agents are cyclophosphamide, 5-fluorouracil, and adriamycin. With the use of the combination chemotherapy—cis-platinum, cytoxan, and adriamycin—encouraging results have been reported in terms of objective response and occasional disappearance of all measurable disease.[51] Planned adjuvant systemic chemotherapy after radical cystectomy has been employed using cyclophosphamide and doxorubicin after which 59 percent of patients with Stage D tumors were free of disease for an average of one year.[52]

Intravesical chemotherapy. In this country the most frequently used intravesical chemotherapeutic agent is thiotepa which has been used for treatment of small, multiple, rapidly recurring low-grade bladder tumors or when carcinoma in situ has been demonstrated.[53] When used for definitive therapy for low-grade papillary tumors, between approximately one third and 50 percent of patients have a complete or partial destruction of the tumor.[53–56] It has also been advocated for intravesical therapy immediately following transurethral resection of bladder tumors,[57] and prophylactically to reduce the recurrence rate. The value of its usefulness in these circumstances has not been resolved.[58] A 62 percent complete and greater than 50 percent partial response rate in patients treated with intravesical mitomycin C has been reported.[59] Bleomycin has been reported to produce a 27 percent complete response rate and a 9 percent partial response rate,[60] and doxorubicin has resulted in some complete and partial responses.[61] In Japan, a technique of magnetic controlled intra-arterial injection of microcapsules of mitomycin C into the bladder tumor has resulted in tumor suppression in 55 percent of patients, an analgesic effect in 78 percent, and cessation of hematuria in all patients.[62]

Follow-up surveillance

In recent years, urine cytologic examination has become highly accurate and extremely useful for following patients with a history of bladder tumor and people in high-risk occupations.[63] Patients with a history of fulguration, open or transurethral resection of bladder tumors, intravesical chemotherapy, segmental cystectomy, and supervoltage radiation therapy should have cystoscopy-panendoscopy at regular intervals, at least yearly, in order to detect early recurrences; and limited or complete excretory urograms, at least yearly, in order to detect transitional cell carcinoma of the upper urinary tract. Patients with positive cytologic studies and/or a history of overt bladder carcinoma must be followed periodically with repeat interval cytologies, cystoscopy-panendoscopy, random quadrantic cold cup biopsies, and, possibily, retrograde ureteral washings for cytologic study.[64] Urinary fibrinogen degradation products have been suggested as a screening and follow-up test for patients with bladder tumors.[65]

Summary

In summary, in the future it is expected that increased survival rates will result from development of methods for earlier detection of disease, and from the availability and employment of effective adjuvant systemic chemotherapeutic and/or immunotherapeutic agents for use in conjunction with surgical intervention or irradiation therapy in patients with deeply invasive bladder cancer with manifest pelvic metastatic disease and/or occult distant metastases.

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Electrocardiograms of the Month

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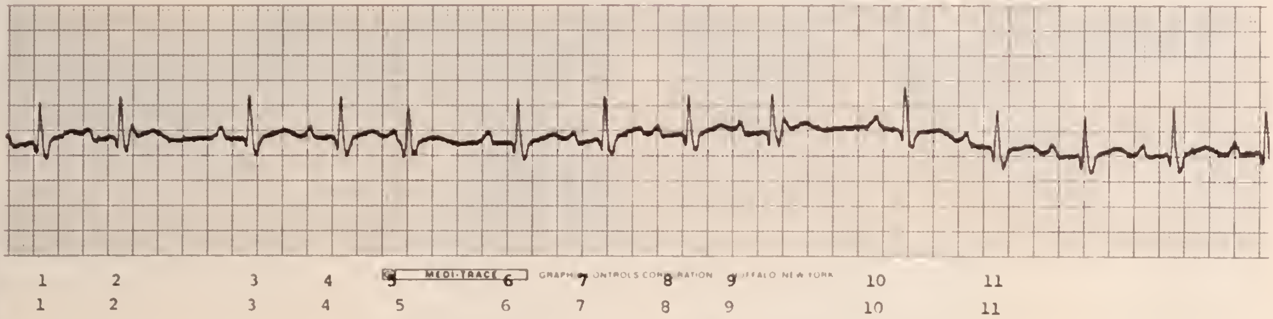
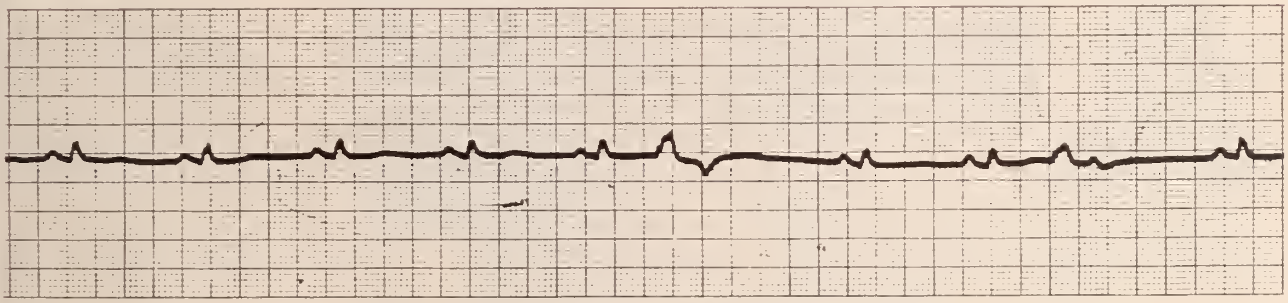


QUESTION 319. Lead 2. What is the rhythm?



QUESTION 320. Lead 2. What is the rhythm?

Elucidation

Question 319. The basic rhythm is regular sinus with slight sinus arrhythmia at a rate of 88 to 90 per minute. The P-R interval is 0.26 seconds. The QRS is 0.14 seconds. There is a pause after QRS 2, 5, and 9. The pause is shorter after QRS 5 than it is after 2 and 9. The P-R interval of QRS 5 is very short. This P-R interval is short because the QRS is premature. The QRS configuration and the sinus rate are unchanged. The fifth QRS is a junctional premature beat. The terminal part of the QRS of beats 2 and 9 is deformed by a positive wave not seen in any other ventricular depolarization. This deflection is an atrial premature depolarization which is blocked.

The interpretation is RSR with 1° A-V block, an intraventricular conduction defect and multiple atrial premature depolarizations which are blocked. There is one junctional premature depolarization.

Question 320. The basic rhythm is regular sinus at a rate of 65 per minute. There are 2 ventricular premature beats with QRS duration of 0.14 seconds. The last premature beat starts 0.44 seconds after the onset of the preceding QRS. The regular sinus P wave occurs on time in the T wave of the premature beat. The first ventricular premature depolarization starts 0.38 seconds after the beginning of the preceding QRS. A sharply inverted wave is seen after the aberrant QRS. This wave is an inverted P due to retrograde conduction to the atria. Each ventricular premature depolarization has a fully compensatory pause. The retrograde P wave does not enter the sinus node. The sinus rhythm is not interrupted.

The two premature depolarizations are ventricular premature depolarizations. The first is more premature and conducts back to the atria leading to a retrograde P wave. The second ventricular premature depolarization occurs slightly later after the preceding QRS. The normal sinus P wave appears and prevents retrograde depolarization of the atria. Ventricular premature depolarizations and ventricular tachycardia can be present with or without retrograde conduction to the atria.

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Radiologic Problem of the Month

Montefiore Hospital and Medical Center
The Bronx, New York

Editor

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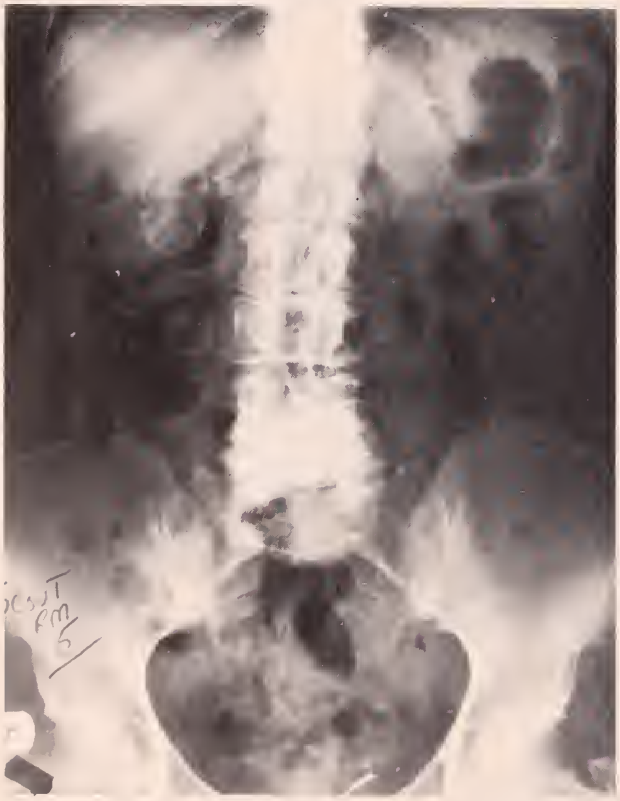
Right Upper Quadrant Abdominal Calcification



A 53-year-old woman complained of pain in epigastrium and chronic low backache.

Elucidation

Supine view of the abdomen reveals degenerative disk changes in the mid- and lower lumbar spine. Reactive sclerosis at the articular margins of L_4 to L_5 indicates chronicity, and these findings account for the chronic low backache. In addition, an egg-shaped calcification is present in the right upper quadrant of the abdomen. These calcifications are curvilinear and located at the periphery. In the differential diagnosis of these calcifications, a large gallstone, adrenal, renal or hepatic calcifications, calcified cysts, and calcification in the wall of the gallbladder are to be considered. In a middle-aged female, from the nature and topography of calcification, porcelain gallbladder is a likely diagnosis.

Calcification of the wall of the gallbladder is an unusual but not a rare form of dystrophic calcification of soft tissues of the body.[1,2] Calcifying cholecystitis, china or porcelain gallbladder is the final state of complete physiologic and morphologic inflammatory change. Porcelain gallbladder is generally encountered in the fifth decade, is three times more common in women, and often is an incidental radiologic finding. Robb[3] described the remarkable paucity of symptoms in these striking words: "the calcified gall bladder is most often so quiescent in its development, so unproductive of symptoms, that the existence of many must never be known or even suspected, and they are cast upon the rubbish heap of treasures whose only signpost is senile decay". However, the incidence of malignant conditions in a porcelain type of gallbladder is high,[1,4] and hence the clinical significance and surgical removal.

The pathophysiology of the formation of calcium crusts in the gallbladder wall is an alteration of local tissue balance of calcium phosphorus product, based on chronic inflammation and ischemia. This process is similar to any dystrophic calcification. Grossly, the gallbladder is generally large, stony hard, egg-shaped, and has a pale or blue avascular surface with a shaggy fibrous serosa. Two types of calcification are found, one a broad continuous band of calcification in the muscularis and the other multiple punctate specks in the mucosa.

The basic radiologic features parallel the pathologic findings. Curvilinear, flaky, or plaque-like calcifications in the gallbladder's expected position and the globular and pear shape should give a clue to the diagnosis of porcelain gallbladder. Oral or intravenous cholecystography does not help to visualize the gallbladder. There are no radiologic criteria to detect beginning cancers in the gallbladder even by modern imaging methods such as ultrasonography and computed tomography.

As indicated earlier, calcified cysts and masses in the liver, adrenal, kidney, mesentery, and retroperitoneum have to be ruled out by simple techniques such as lateral view of the abdomen and intravenous pyelography.

Diagnosis

Porcelain gall bladder with early carcinoma

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New treatment methods saving sickle cell children

Progress in treatment techniques can save lives of children with sickle cell anemia, says a report in the May 8 Journal of the American Medical Association.

Streptococcus pneumoniae infection has been the single greatest cause of death for children with sickle cell anemia in the first five years of life. The infection progresses to meningitis and death unless it is treated promptly and effectively.

Darleen Powars, M.D., of the Sickle Cell Center of Los Angeles County and University of Southern California School of Medicine, reports on experience in aggressive treatment of the infection crisis among children with the inherited blood defect.

In the California center, prior to July, 1972, of 23 sickle cell children who had pneumococcal septicemia (an infection that spreads into the blood), eight died and meningitis developed in 15. With new treatment techniques instituted at that time, the record changed dramatically. Since July, 1972, 11 children have had pneumonococcal septicemia, but no children died and meningitis developed in only two.

"We believe that aggressive parental education regarding fever as an important sign of possible infection coupled with a high index of suspicion, the ready availability of nursing staff, and the immediate institution of antibiotics, account for the observed successful outcome in the treatment of pneumococcal septicemia in sickle cell infants and children," Dr. Powars declares.

It is most important for parents to know that the child should be rushed to the treatment center at the first sign of fever. The pneumococcal disease may appear within four to eight hours after fever begins.

If the child survives to age six with sickle cell anemia, he or she usually is past the critical time, Dr. Powars says. Thus it is important for the parent to make contact with a sickle cell center as soon as the condition is discovered, and be prepared to take the child to the center immediately when fever develops.

Oat Cell Carcinoma (Apudoma) of Esophagus

An ultrastructural study

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The so-called "oat cell carcinoma"[1-3] of the esophagus also has been reported in the literature as carcinoid,[4] anaplastic carcinoma,[5] argyrophil cell carcinoma (apudoma),[2,6] and small cell carcinoma.[7]

Since its first description by McKeown[3] in 1952, sporadic cases of oat cell carcinoma of the esophagus have been reported.[1-9] Imai, Sannohe, and Okano[2] culled 16 cases from the literature and added one case of their own, bringing the total to 17 patients, but they did not include one case published by Cook, Eusebi, and Betts.[1] Horai et al.[7] studied cytomorphologic features of seven additional cases of small oat cell carcinomas of the esophagus. Among seven cases, including four tumors in which electron microscopic observations were carried out, all had intracytoplasmic neurosecretory granules. Three other cases were diagnosed on the basis of the presence of argyrophilic cells. A high ACTH (adrenocorticotropic hormone) content of tumor tissue was recorded in four of the five cases in which bioassay was performed.[5,7]

Recently, we had an opportunity to study the light microscopic and ultrastructural features of an esophageal biopsy of oat cell carcinoma in a patient who subsequently was found to have widely disseminated metastases at necropsy.

Case report

A 77-year-old white woman was admitted to Buffalo General Hospital on October 19, 1978, with a two-month history of abdominal bloating, eructation, and occasional nausea but rare vomiting. One month prior to admission, she experienced anorexia but without any weight loss. An upper gastrointestinal series taken approximately one week after admission showed a large bulky tumor mass occupying the distal quarter of the esophagus, but a part of the lumen was still patent.

She had a previous history of hiatal hernia, stroke with mild right-side hemiplegia, bilateral vein ligation, thyroidectomy, and mild hypertension since 1969. She had smoked a pack of cigarettes daily since the age of 20.

Physical examination was not remarkable. She had no lymphadenopathy. Her admission hemoglobin was 12.2 Gm. per deciliter with a hematocrit of 36 and white blood count of 10,600 per cubic millimeter. Routine chest x-ray and electrocardiogram results were normal. Pulmonary function was significantly reduced.

On October 20, esophagoscopy revealed a distal obstruction of the esophagus by a whitish, firm mass which on microscopic examination was diagnosed as oat cell carcinoma. Bronchoscopy and mediastinoscopy revealed no gross mediastinal or bronchial involvement. Another biopsy was taken for light and ultrastructural studies. The diagnosis of oat cell carcinoma of the esophagus was confirmed. She was treated with radiation as an outpatient. On March 26, 1979, she was readmitted with nausea, vomiting, and generalized weakness of two weeks' duration. At this time, physical examination revealed a left supraclavicular mass which on microscopic examination proved to be metastatic oat cell carcinoma. Esophagoscopy showed fibrosis, with prominent mucosal folds but no gross tumor despite moderate obstruction. Esophageal biopsy showed only fibrosis without any evidence of oat cell carcinoma. During hospitalization, she became progressively weaker, developed productive cough, low-grade fever, slurred speech, and repeated petit mal seizures. She became hypothermic, progressively unresponsive, and finally died on June 22, 1979. During hospitalization, lung scan showed diffuse radiotracer accumulation in the region of the right lung field, possibly a neoplastic and/or inflammatory lesion. Liver scan revealed a space-occupying mass.

Postmortem examination showed widespread metastatic disease involving supraclavicular, mediastinal, para-aortic and parapancreatic lymph nodes. In addition, multiple tumor nodules were found in the lungs, liver, pericardium, mesentery, left adrenal area, and around both kidneys and the right ureter. Pancreas was firm and nodular, while cut surface

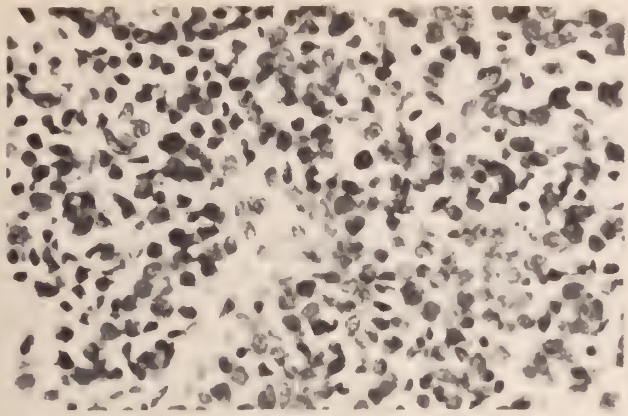

FIGURE 1. Photomicrograph of first esophageal biopsy shows sheets of pleomorphic dark cells with indistinct cell boundary and high nucleus-to-cytoplasm ratio (original magnification × 100).

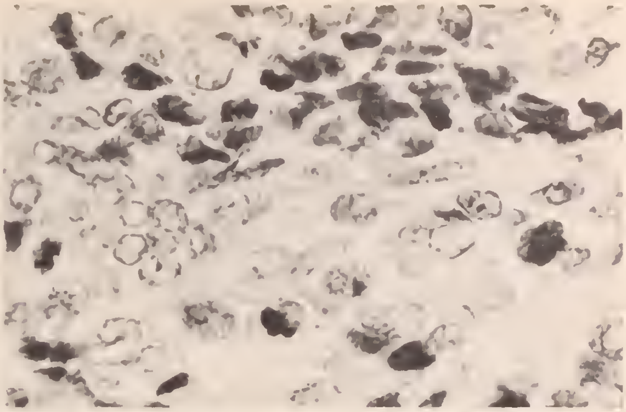

FIGURE 2. Second biopsy shows two distinct cell populations: light cells contain large, vesicular nuclei of varied shapes and sizes; dark cells show pleomorphic dark nuclei (original magnification × 250).

showed multiple discrete masses in the substance of the pancreas. Two large, well circumscribed greyish-white nodules were noted on either side of the esophagus and one along the greater curvature of the stomach.

Materials and methods

For light microscopy, the specimens were fixed in a 10-percent formalin solution, embedded in paraffin, and stained with hematoxylin and eosin.

For electron microscopy, the minced pieces of tissue were fixed in 3 percent buffered glutaraldehyde (pH 7.4), and postfixed in 1 percent osmium tetroxide. For selection of representative tissue, semi-thin sections were cut and stained with 1 percent methylene blue. Thin sections were double-stained with uranyl acetate and lead citrate and viewed with Siemen 101 electron microscope.

Light microscopic findings. The initial esophageal biopsy showed light blue myxoid to dense hyalinized connective tissue stroma. The tumor cells were small, round, oval to elongated, and their cell boundaries were indistinct. They were present as small nests, solid sheets, or as trabeculae. The stromal elements intervened between individual cells or the groups of cells. The nuclei were pleomorphic and hyperchromatic and the nucleus-to-cytoplasm ratio was high (Fig. 1).

The subsequent esophageal biopsy showed two distinct cell populations (Fig. 2). The predominant large cells were intermixed with pleomorphic dark cells. The large cells contained pale and vacuolated cytoplasm and round vesicular nuclei with distinct nucleoli. The arrangement of chromatin imparted to the nuclei a multilobulated appearance. The dark cells were pleomorphic and contained large hyperchromatic nuclei and scant cytoplasm. Normal and abnormal mitotic divisions were frequently seen.

Electron microscopic findings. The large and relatively lucent tumor cells were round, oval to polygonal, and contained regular, slightly indented to irregular and multilobed nuclei and one to three nucleoli. The heterochromatin was sparse and was distributed peripherally in small condensation, imparting to the nucleus its smooth, homogenous, and relatively lucent appearance (Fig. 3). The cytoplasm was rich in ribosomes and polyribosomes and in addition contained many mitochondria, numerous vacuoles and vesicles, a few profiles of rough endoplasmic reticulum, Golgi complexes, occasional centrioles, multivesicular bodies, and other morphologic variants of lysosomes. The most characteristic finding was the presence of intracytoplasmic neurosecretory granules in varying numbers in different tumor cells (Fig. 3). A halo intervened between the central dense core and the surrounding limiting membrane of the neurosecretory granules (Figs. 4, 5). The granules were round, oval, elongated, and dumbbell-shaped. Another interesting organelle was the annulate lamella in the cytoplasm of occasional cells (Fig. 3). The tumor cells were often in close apposition to one another and their plasma membranes were interconnected by desmosomes (Fig. 5). On the cytoplasmic interface of the desmosomes were attached small tufts of tonofilaments (Fig. 5).

The dark cells were relatively small and somewhat elongated with attenuated cytoplasmic processes. Their cell boundaries were indistinct, their nuclei and cytoplasm sparse and largely vacuolated (Fig. 6). The cytoplasm, in addition, contained mitochondria, lipid granules, occasional secretory granules, multivesicular bodies, and other morphologic variants of lysosomes.

Comment

Oat cell carcinoma of the lung is often referred to as small cell carcinoma.[10] The designation small cell carcinoma describes only the tumor cell size but lacks specificity.[11] Oat cell carcinoma of the lung is neither anaplastic squamous cell carcinoma nor anaplastic adenocarcinoma.[11] It has its own distinct morphologic, histochemical, and biochemical features and therefore represents a separate entity.

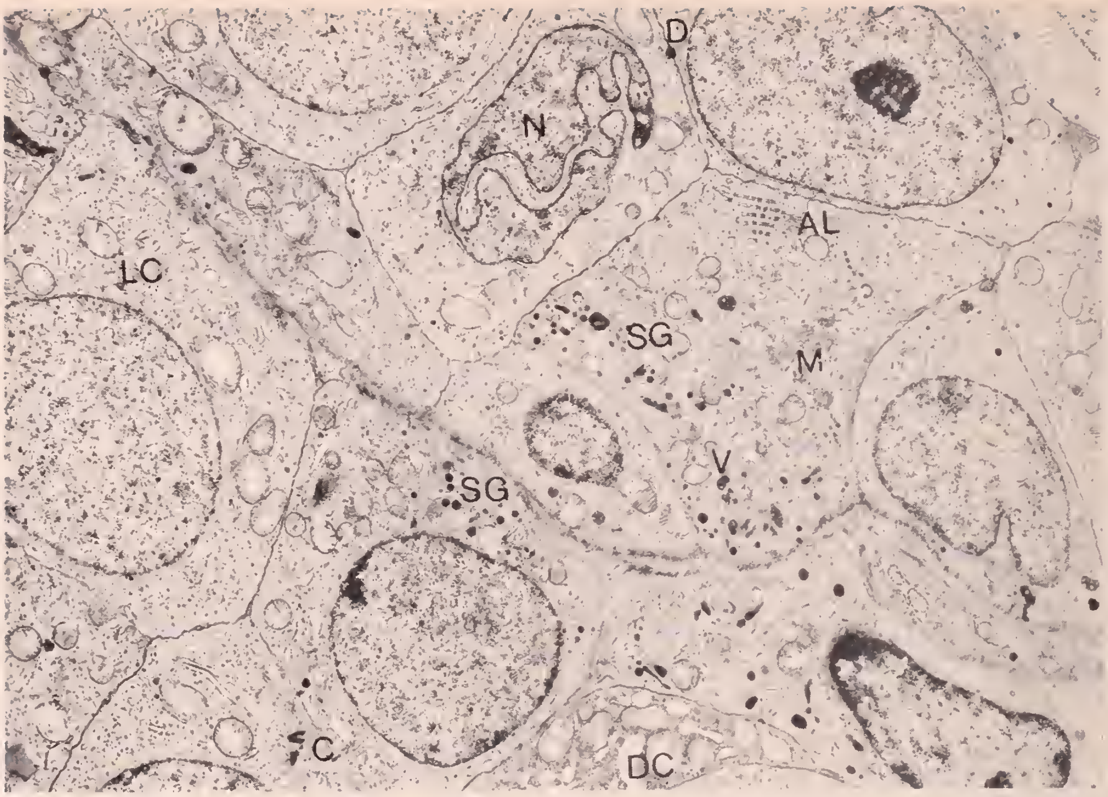

FIGURE 3. Electron micrograph showing polymorphic light cells (LC) and part of dark cells (DC). Plasma membranes of cells are tightly apposed and interconnected by desmosomes (D). Nuclei are round, oval, irregular to lobed (N). Cytoplasm contains neurosecretory granules (SG), annulate lamella (AL), mitochondria (M), vesicles (V), and centriole (C), Dark cells contain intracytoplasmic large vesicles (V) (original magnification × 4,000).

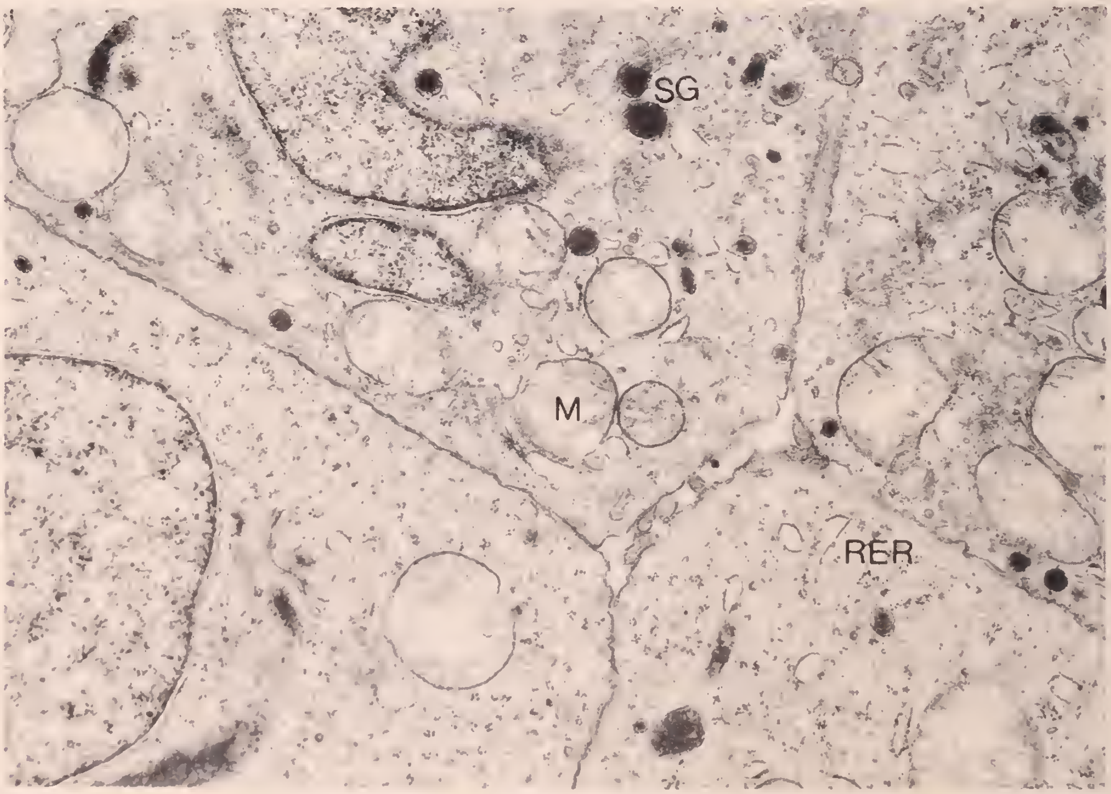

FIGURE 4. Electron micrograph showing classic intracytoplasmic neurosecretory granules (SG) interspersed with mitochondria (M), occasional profiles of rough endoplasmic reticulum (RER), and polyribosomes (original magnification × 10,000).

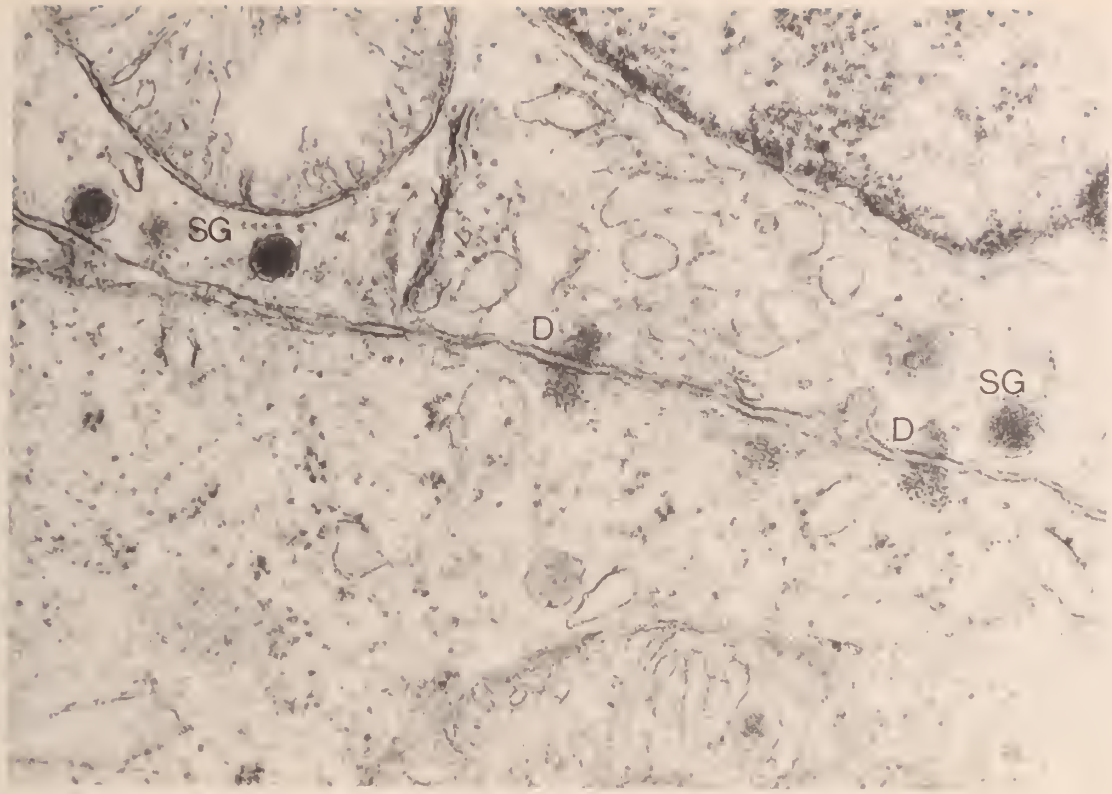

FIGURE 5. Electron micrograph showing typical neurosecretory granules (SG). Note their close proximity to plasma membrane. Well developed desmosomes (D) with attached tonofilaments interconnect the apposing cells (original magnification X 20,000).

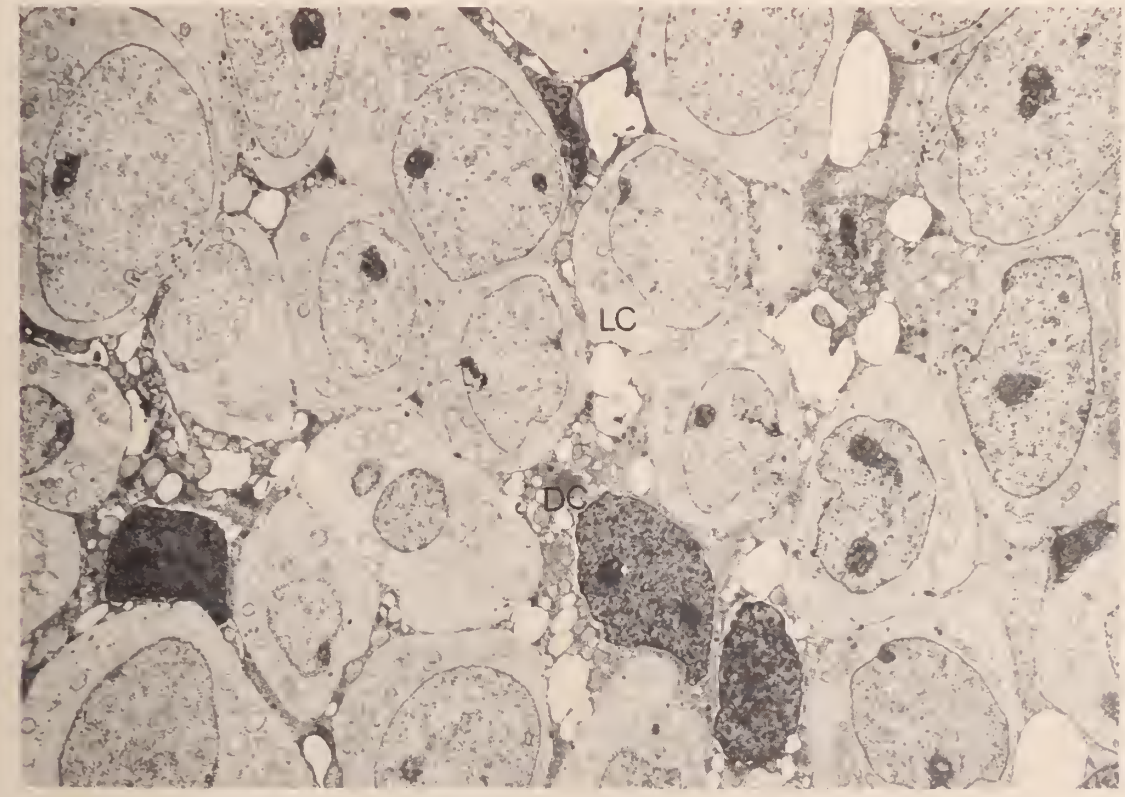

FIGURE 6. Electron micrograph showing predominant light cells (LC) intermixed with occasional dark cells (DC). Latter contain large dense nuclei and their cytoplasmic processes intervene between the light cells (original magnification X 2,400).

Microscopically, the small oat cells may be round, oval, or fusiform. They may be present in solid nests, sheets, ribbons, alveoli, or trabeculae. Occasionally, they may be arranged in rosettes or pseudorosettes. The nucleus is large and hyperchromatic and the nucleus-to-cytoplasm ratio is high.

Ultrastructurally, the irregular and indented nuclei show marginal heterochromatin condensation and prominent nucleoli. The most significant ultrastructural marker is the presence of intracytoplasmic neurosecretory granules similar to those seen in bronchial and gastrointestinal tract carcinoids.[12]

Biochemically, pulmonary oat cell carcinomas are often responsible for causing such endocrine disturbances as Cushing's syndrome and carcinoid syndrome.[13,14] ACTH and serotonin have been found in oat cell carcinoma of the lung tissue.[14,15]

The hormonal disturbances caused by pulmonary oat cell carcinoma closely parallel those caused by bronchial and intestinal carcinoid tumors. These findings strongly support the hypothesis that pulmonary and extrapulmonary carcinoids arise from a common progenitor, the Kultchitzky cell, which has been identified in different organs throughout the body.[8,13,16–18]

Pulmonary oat cell carcinoma pursues an extremely aggressive biological course and therefore represents a malignant variant of bronchial carcinoid.[19]

Extrapulmonary oat cell carcinomas have been reported in the larynx,[20–23] breast,[24] stomach,[25,26] large intestines,[27] pancreas,[28] thymus,[29] uterine cervix[30,31] and prostate.[32] Ultrastructural studies demonstrate characteristic intracytoplasmic neurosecretory granules. They are composed of a dense central core surrounded by a halo and a limiting membrane. Clinical syndromes are not common, but ACTH and serotonin could be demonstrated in some tumors of extrapulmonary tissues.[14,15]

As proposed by Pearse and others,[33–38] the Kultchitzky cells may be of neuroectodermal origin and thus belong to the APUD (amine precursor uptake decarboxylation) system, and the arising tumors therefore represent variants of apudomas.[37]

Oat cell carcinoma of the esophagus is extremely rare. Turnbull et al.[39] reviewed 1,918 patients with esophageal cancer treated at Memorial Hospital from 1926 to 1968 and found only one oat cell carcinoma. Based on a small series, oat cell carcinoma of the esophagus, like other pulmonary and extrapulmonary lesions, is highly malignant and pursues a rapidly fatal course from widespread lymphogenous and hematogenous metastases. It has been commonly reported in elderly men.

Due to the presence of widely disseminated disease at necropsy, it becomes very difficult to determine with great confidence the primary site of origin of oat cell carcinoma, especially with the involvement of lungs and/or pancreas. In the present case, we favored the diagnosis of primary lesion in the esophagus because of the lack of radiologic evidence of the disease in the lungs at the time of the first admission. Similarly, multiplicity and distribution of the lesions in the pancreas was more in keeping with the metastatic disease in that organ.

Summary

Ultrastructural observations are reported on an oat cell carcinoma of the esophagus with disseminated lymphogenous and hematogenous metastases in a 77-year-old woman. The neoplasm is predominantly composed of light cells interspersed with occasional dark cells. The most characteristic feature is the presence of intracytoplasmic dense-cored neurosecretory granules. Oat cell carcinoma is a malignant bronchial carcinoid tumor that arises from Kultchitzky cells. These cells have been identified in different organs and are, most likely, of neuroectodermal origin. Oat cell carcinoma, therefore, may be regarded as a variant of apudoma. Biologically, the tumor is exceedingly aggressive and rapidly fatal.

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AMA urges first aid kits for cross country buses

Cross country buses should carry first aid kits and the bus drivers should be trained in first aid, the American Medical Association recommended.

The AMA comment from Executive Vice President James H. Sammons, M.D., to the Bureau of Motor Carrier Safety deals with proposed changes in federal rules relating to first aid kits on buses.

The AMA maintains an active interest in promoting the availability of first aid kits as well as first aid training for members of the general public, Dr. Sammons said. The Association recently published a comprehensive book for the public on first aid and is on record encouraging the presence of basic medical supplies on public transportation carriers and medical training for public carrier personnel, he pointed out.

"We advise against eliminating the first aid kit" on buses, Dr. Sammons said.

"Economic and age trends would appear to indicate that an increasing number of interstate bus passengers are likely to be retired citizens. The elderly face a greater chance of experiencing a medical emergency than the general population."

The AMA recommended to the Federal Highway Administration that, rather than eliminate first aid kits from buses, appropriate medical supplies should be carried, and the drivers should be trained in first aid, particularly regarding medical emergencies of the elderly.

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Splenic Conservation

Splenic artery ligation as adjuvant surgical measure

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A review of the recent surgical literature concerning the management of traumatic splenic injuries and benign splenic lesions reveals a surge of interest in the importance of preservation of splenic function in both children and adults.[1–4]

Reports of diminished immunologic competence and possible resultant sepsis have increased and demand our attention.[5,6] It is well known that the major problem in splenic surgery is the one of hemostasis; to accomplish this, surgeons have reexamined both old and recent concepts of surgical technique. However, in all these numerous reports, no mention has been made of performing splenic artery ligation prior to parenchymal resection as a measure to control bleeding.[1–4] We are presenting the case of a patient who had a benign splenic cyst in whom partial splenic resection was performed without complication, after splenic artery ligation. Hemostasis can be completed by using interlocking mattress sutures. Splenic necrosis does not occur following splenic artery ligation if it is interrupted distal to the greater pancreatic artery branch. In fact, postoperative arteriograms revealed the development of new collateral circulation and backflow to the spleen from other sources.

Case report

The chief complaint of a 39-year-old male was that of tarry stools for three days and increasing epigastric distress for eight years, which he had attributed to anxiety. During the past three days, abdominal pain persisted, not relieved by antacids as it had been previously. Past medical history was unremarkable, and there had been no aspirin, ethanol, or drug ingestion.

Physical examination showed a well-developed, well-nourished, anxious patient, afebrile, and in no acute distress. Blood pressure was 110/60; pulse rate was 80 and respiratory rate 18 per minute. The abdomen was firm, flat, with midepigastric tenderness on deep palpation, and without rebound. Bowel sounds were normal; no masses or enlarged organs were palpated. Rectal examination showed good sphincter tone and no masses; stool was positive for occult blood. The remainder of the examination disclosed nothing remarkable. Hemoglobin at admission was 5.7, hematocrit 17.6, prothrombin time 15.4 with a control of 11.8, and partial thromboplastin time (PTT) 24. Sequential multiple analyzer (SMA)/6 and urinalysis were within normal limits. Chest x-ray film findings were normal; abdominal radiographs disclosed a nonspecific gas pattern.

At emergency esophagogastroscopy and duodenoscopy, no esophageal varices were found, but a small hiatal hernia showed up. Proximal gastritis was found, but no gastric or duodenal ulcers were present. The pylorus was deformed, edematous, and with blood in the channel; the duodenal bulb was also deformed and edematous. An upper gastrointestinal (GI) series five days later confirmed the deformity of the duodenal bulb and also revealed a duodenal ulcer. An extrinsic mass overlying the gastric fundus was noted, its pattern following closely the typical signs of splenic tumor as pointed out by Morton.[7] An abdominal sonogram revealed evidence of splenomegaly, and intravenous pyelogram findings were normal.

A CT scan (computed tomography scintiscan) of the abdomen suggested the presence of a splenic cyst, 12 cm. in diameter. An aortogram and celiac arteriogram showed a large intrasplenic avascular cystic mass, approximately 14 cm. in diameter at the superior portion of the spleen, displacing normal splenic tissue inferiorly. Laparotomy for removal of the splenic cyst as well as definitive treatment of the duodenal ulcer were both proposed; however, the patient refused the latter. An abdominal exploration through an oblique incision showed a large splenic cyst high in the left upper quadrant, attached loosely to the diaphragm; it was located at the upper or supermedial pole of the spleen, 15 to 20 cm. in diameter, attached to a normal-appearing lower or inferomedial pole. The gastrocolic ligament was opened, exposing the pancreas and identifying its superior border. The splenic artery was located at this level, dissected, doubly ligated, and then divided distal to the greater pancreatic branch. Then the splenic flexure of the colon was separated from the inferomedial pole of the spleen. The posterior peritoneum covering the inferior aspect of the pancreas toward the junction of body and tail was freed to easily mobilize the spleen. Then the loose connection between spleen and diaphragm was separated, and the cyst, spleen, and tail of the pancreas were brought out at the level of the

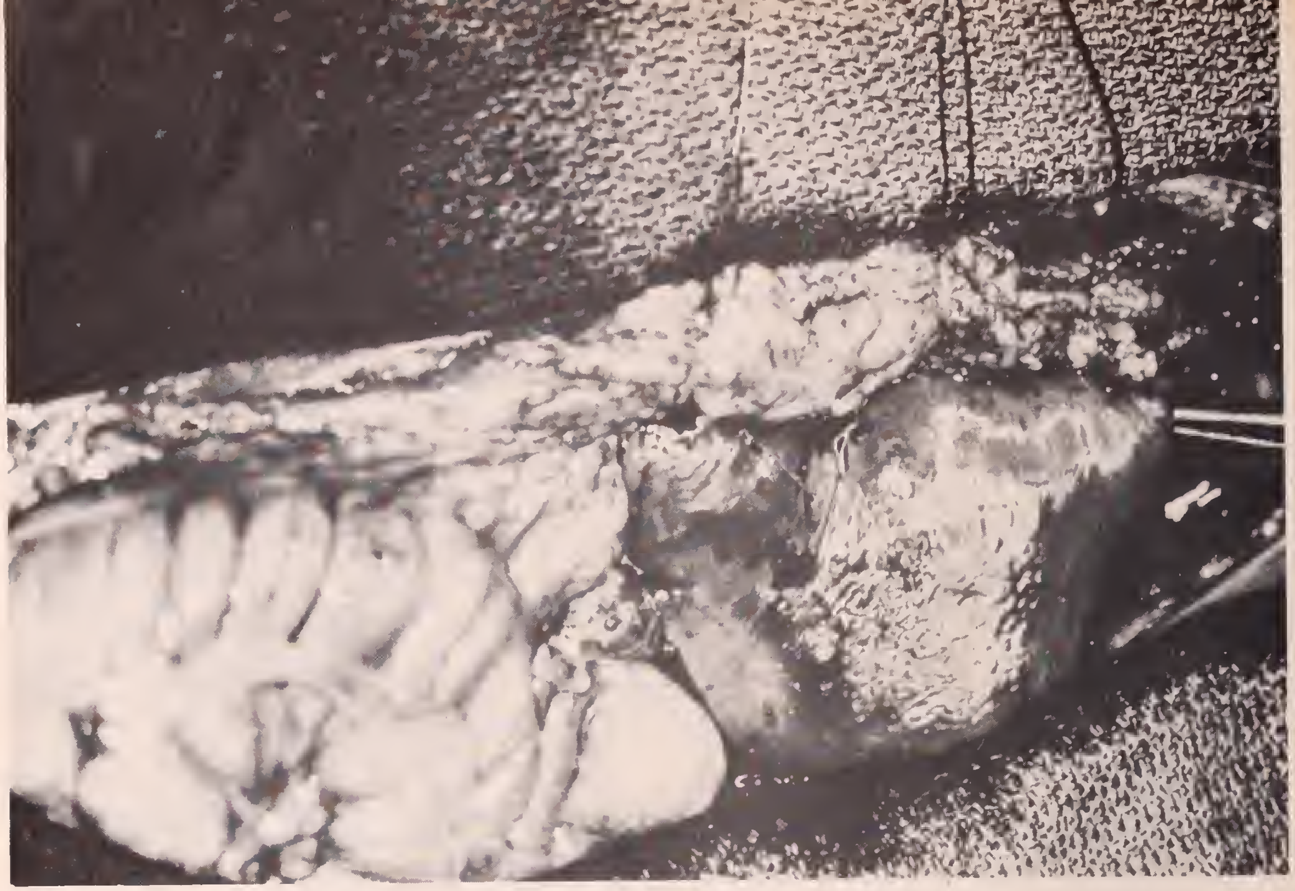

FIGURE 1. Application of viable omental flap over spleen surface.

abdominal incision. The cyst was resected; parenchymal bleeding was minimal and could be controlled by finger compression. Interlocking mattress sutures were used, and a flap of viable omentum was applied over the surface of the spleen and complete hemostasis was achieved (Fig. 1). A drain was left in place and removed on the fourth postoperative day.

The patient tolerated the procedure well, and his postoperative course was unremarkable. A repeat aortic and celiac arteriogram showed that following ligation of the splenic artery in its distal portion, the left gastric artery was hypertrophied and that retrograde filling of the tied-off splenic artery, via numerous collaterals derived from the left gastric artery, occurred (Fig. 2). Some collaterals also appeared to arise from the transverse pancreatic artery (Fig. 3). During the venous phase, faint opacification of the normal splenic and portal veins was seen. A liver-spleen scan showed functional splenic tissue. No Howell-Jolly bodies were seen on two blood smears, demonstrating intact function of the spleen. The patient did well, was discharged 14 days after the procedure, and continues to do well.

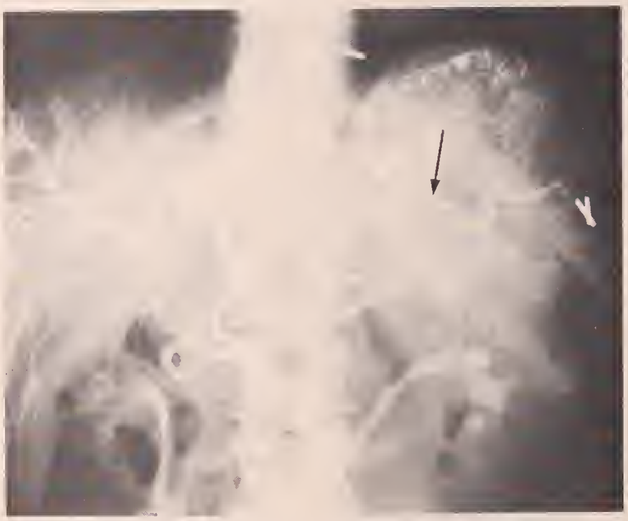

FIGURE 2. Celiac arteriogram showing left gastric artery hypertrophied with retrograde filling of tied-off portion of splenic artery through numerous collaterals. Some collaterals may also arise from transverse pancreatic artery. Arrow shows splenic artery tied.

Comment

According to the surgical literature, splenic cysts are rare. Andral[8] is credited with the first case report concerning cystic and pseudocystic disease of the spleen. It was suggested that splenic cysts may be the result of trauma with hematoma formation and later degeneration, or perhaps secondary to infarction with subsequent necrosis.[9,10]

Splenic artery ligation has been performed in experimental surgical laboratories to study theories of splenic cyst formation.[11] Martin et al.[10] reported that the blood supply of the spleen was occluded

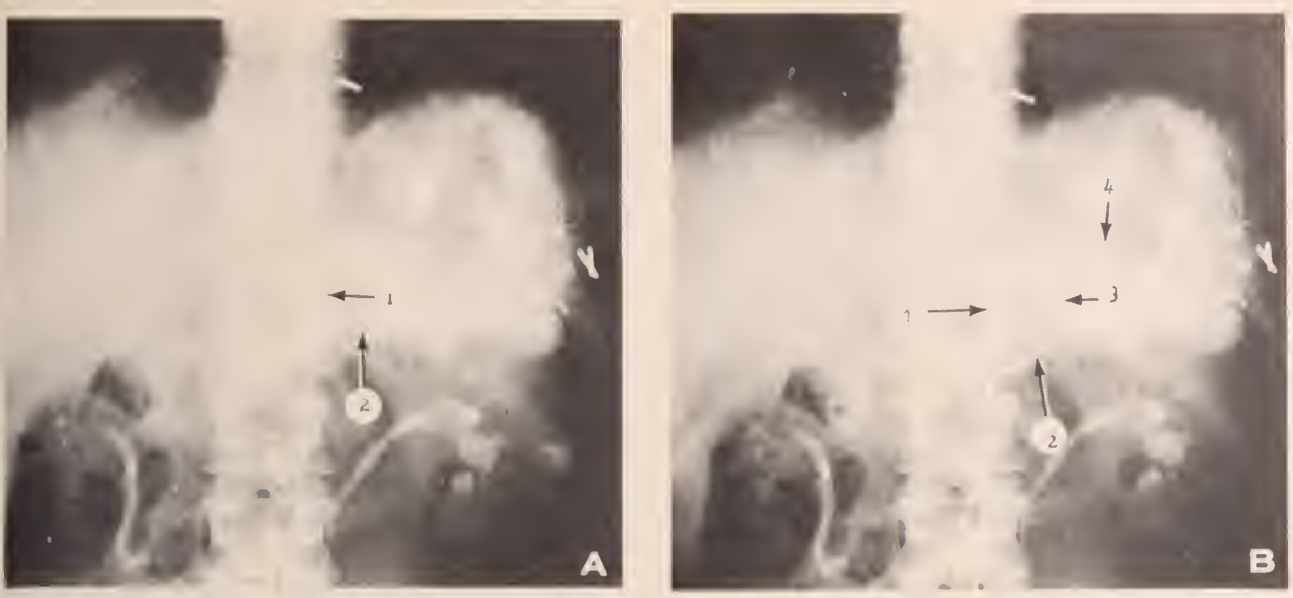

FIGURE 3. Selective splenic arteriograms. (A) Early phase. Arrow 1: superior or dorsal pancreatic artery; arrow 2: inferior or transverse pancreatic artery. (B) Late phase. Arrow 1: superior or dorsal pancreatic artery; arrow 2: left gastroepiploic artery; arrow 3: greater pancreatic artery; arrow 4: site of ligation of splenic artery. (All these arteries are forming rich collateral supply to remnant spleen.)

partially or completely by (1) the ligation and division of the arteries in the pedicle and gastrolienal ligament, (2) torsion of the latter, or (3) a combination of these two. In dogs, it was found that after the splenic artery alone was ligated, collateral circulation of the spleen was sufficient to maintain splenic architecture. Following occlusion of the arteries in the splenic pedicle and gastrolienal ligament, infarcts develop, usually with a decrease in the size of the spleen. It should be noted that all the dogs who died as a result of this experimental splenectomy had developed pneumonia. Two years later, King and Schumacker[5] reported fulminant sepsis in infants who had undergone splenectomy.

In humans it was found that if the arterial inflow to the spleen was reduced temporarily,[12,13] a subsequent rich collateral arterial supply developed to this organ by way of the pancreas and stomach. In rats, splenic artery ligation at the hilar level induced splenic infarction and reduced functional splenic mass. Campos Christo[2] and Morgenstern and Shapiro[3] recently pointed out that there exists a segmental arterial blood supply in the human spleen which allows for the possibility of partial or segmental resection. Witte et al.[14] performed percutaneous transfemoral occlusion of the splenic artery to reduce splenic arterial inflow, but concluded that this is a potentially dangerous procedure. This, perhaps, may be due to obstruction of the main artery at the hilum, which produces extensive splenic infarction. Because of the risk of overwhelming sepsis in postsplenectomy patients, emphasis has been given to the preservation of splenic parenchyma and function preservation in trauma as well as in benign disease.

In hemi-splenectomized animals, the spleen retains its very important immunologic ability to resist infection.[15]

We believe that splenic artery ligation, if performed distal to the greater pancreatic artery branch, is a feasible procedure that will temporarily decrease splenic arterial inflow and thus avoid hemorrhage at the parenchymal level. Subsequent development of collateral arterial circulation renders conservation of splenic function possible. However, it is important to realize that splenic artery ligation at the hilar level may occlude the main and common arterial supply and close off all potential collaterals. Although the exact site of splenic artery ligation requires further investigation, at this time we recommend ligation distal to the greater pancreatic branch to preserve an adequate collateral circulation.

We contend that splenic artery ligation should be made part of the surgical armamentarium in the attempt to maintain splenic parenchyma and, thus, functional conservation. Galen wrote: "The spleen is an organ of mystery."[3–8] This mystery may be slowly cleared up by new approaches to traumatic and acquired conditions of the spleen.

Summary

A partial splenectomy was performed to preserve splenic function in a patient with a benign splenic cyst. Prior to parenchymal resection, the gastrocolic ligament was opened, exposing the splenic artery, doubly ligated and divided just distal to the greater pancreatic artery branch. Complete hemostasis was obtained with the splenic parenchyma by employing interlocked mattress sutures and omental overlap.

There was no intraoperative or postoperative evidence of splenic necrosis following the splenic artery

ligation. However, parenchymal bleeding diminished considerably after completion of this maneuver. The integrity of splenic function was verified postoperatively by several parameters, such as hematologic studies, spleen scanning, and arteriography.

Mean selective arteriography revealed the development of new patterns of arterial blood supply following this splenic artery ligation. Splenic artery ligation is a feasible and safe surgical procedure to diminish splenic parenchymal hemorrhage; it allows splenic conservation in the case of partial splenectomy.

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Urban cowboys now have their own injury syndrome

It was inevitable. The newest medical syndrome is "Urban Cowboy Myoglobinuria."

Two California physicians writing in the March 27 Journal of the American Medical Association describe the medical problems of an "urban cowboy" after riding a mechanical bull in a country-western nightclub.

The patient was a healthy 30-year-old man who had done some rodeo riding on actual bulls. During the course of an evening of drinking beer and listening to music he rode the mechanical bull on a "professional" speed setting, which apparently is more vigorous than usual.

The rider took three rides of 10 seconds each. On the last ride he was thrown, but with no obvious injury.

That evening there was swelling and pain in his entire right arm, as well as back and groin-pain. He noted passing of dark urine and consulted a physician. The physician found blood in the urine. The rider spent several days in the hospital under treatment and recovered.

The condition was diagnosed medically as exertional rhabdomyolysis and myoglobinuria.

Exertional rhabdomyolysis means disintegration of muscle due to intense, prolonged physical exertion. Myoglobinuria means presence of blood in the urine after vigorous and prolonged exercise. This can be a serious medical problem that might lead to kidney failure.

The report concludes:

"The patient was fortunate in that his state of hydration may have protected him from acute renal failure."

The report is by MDs A. Tyler Upham and W. Linn Cooper of St. Joseph Hospital, Orange, California.

The new condition was named by the Californians: "Urban Cowboy Myoglobinuria."

Anesthetic Management of Cystic Fibrosis and Massive Pulmonary Hemorrhage

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Patients with advanced cystic fibrosis invariably demonstrate profound physiologic derangement at the time of surgery. They are frequently hypoxic at rest, with the stigmata of chronic obstructive lung disease and varying degrees of cor pulmonale.[1]

Massive hemoptysis in these patients is associated with an extremely high mortality rate,[2] but recent management utilizing balloon tamponade of diseased bronchopulmonary segments[3] can stop the bleeding and provide an alternative to major surgery in these desperately ill patients. We present a typical case report and discuss our anesthetic technique.

Case report

A twenty-seven-year-old male with long-standing cystic fibrosis was admitted with the chief complaint of fever and respiratory distress. He had experienced several episodes of hemoptysis in the past and was treated conservatively with bed rest and antibiotics. Results of physical examination on admission showed intercostal retraction with bilateral diffuse rales. Findings on chest x-ray films showed advanced disease with cavitation of the left upper lobe. Therapy consisted of intravenous aminophylline, antibiotics, and bed rest. Five days after admission he began to cough up large amounts of blood and purulent material, and the hematocrit, which was 40 on admission, suddenly decreased to 27. Arterial blood gas tensions on admission included pCO_2 (partial pressure carbon dioxide), 53 torr, pO_2 (partial pressure oxygen) 70 torr, and pH 7.31 with a FIO_2 (fraction of inspired oxygen) of 0.4. The patient was brought to the operating room for placement of Fogarty catheters under fluoroscopic control. An arterial line and central venous pressure were inserted, and the upper airway was anesthetized with 10 percent cocaine. The patient was carefully sedated with incremental doses of intravenous alphaprodine hydrochloride (Nisentil) to a total dose of 12 mg. and diazepam to a total dose of 5 mg. A 9-mm. cuffed endotracheal tube was passed transorally with the patient in the semi-awake state and the cuff inflated. Anesthetic induction was completed with an additional 100 mg. thiopental sodium, and maintenance was accomplished with 1 percent halothane in oxygen. A Machida flexible fiberoptic bronchoscope was passed through the cap of a Portex right angle fiberoptic bronchoscope connector positioned between the endotracheal tube and Y connector of the anesthesia circle. The bleeding bronchopulmonary segments were found with the aid of fluoroscopy. Two #4 Fogarty catheters with distal injector caps cut away were positioned in the right middle and left upper lobar bronchi, and the fiberoptic bronchoscope was removed over a bronchoscopic forceps which held the Fogarty catheters in place. Each balloon was then inflated with 0.5 cc. of hypaque to obliterate the bronchus. Finally, two Fogarty irrigating catheters were positioned alongside the balloon catheters and the bronchopulmonary segments were lavaged thoroughly. The patient was brought to the recovery room with the endotracheal tube and all four Fogarty catheters in place. Arterial blood gas tensions in the recovery room were pH 7.22, pCO_2 77 torr, and pO_2 152 torr with an FIO_2 of 1.0. After one hour, blood gas tensions were pH 7.32, pCO_2 49, pO_2 81 torr with an FIO_2 of 0.5. The latter values approached those observed preanesthetically.

The patient was extubated with the Fogarty catheters left in place and balloons inflated. Over the next 48 hours the catheters were irrigated every four hours with 2 ml. epinephrine in saline 1:100,000. They were then removed, and the patient was discharged after 13 days having experienced no recurrence of bleeding.

Comment

Cystic fibrosis is a generalized disease characterized by inspissated secretions which obstruct the ducts of mucous-producing glands of the gastrointestinal and respiratory systems. In its young victims, the disease is characterized by repeated attacks of suppurative bronchitis which progress in early adulthood to chronic obstructive lung disease with lung abscesses and bronchiectasis. It is these lesions which are associated with hemoptysis.[2]

Anesthetizing such patients presents a considerable challenge. The heart, compromised by right ventricular strain with increased pulmonary vascular resistance, is subjected to the further stresses of acute hypoxemia and anemia secondary to bleeding into previously ventilated areas of the lung. Arterial oxygen may also be elevated because of impairment

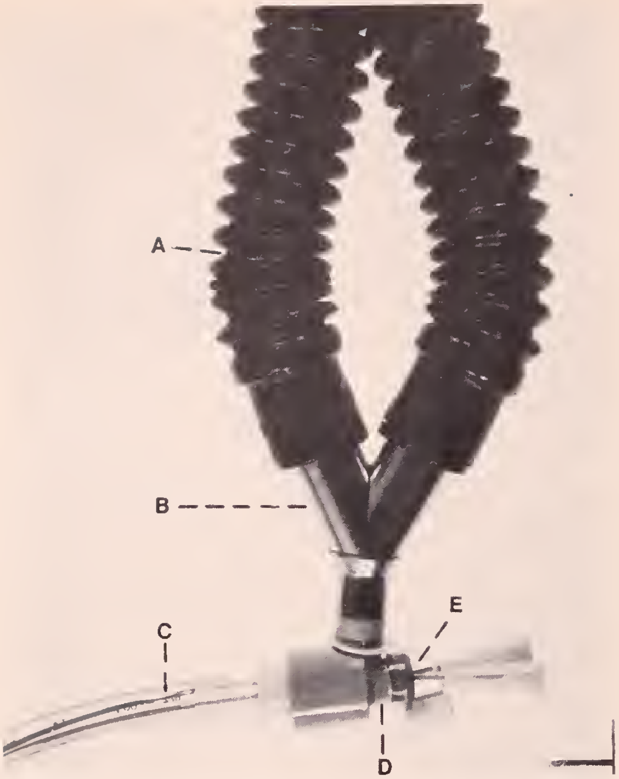

FIGURE 1. Portex fiberoptic bronchoscope. (A) Corrugated tubing of anesthesia circle; (B) "Y" connector of the anesthesia circle; (C) Endotracheal tube with Fogarty catheters; (D) Portex right angle fiberoptic bronchoscope connector; and (E) Port for fiberoptic bronchoscope.

of ventilation in an exhausted patient with chronic obstructive pulmonary disease. In addition, the stomach is usually distended with swallowed blood.

With a semiconscious patient we employ endotracheal intubation as described by Kopman et al.[4] with minimal use of narcotics and tranquilizers, and administration of a light halothane-oxygen mixture. Careful monitoring of these fragile individuals with central venous pressure and an arterial line is mandatory where inhalation anesthetics may depress the already compromised heart on the right side.

The use of the Portex fiberoptic bronchoscope adapter is of great value as a triple conduit for the Fogarty catheters, fiberoptic bronchoscope, and anesthetic gases (Fig. 1). At the time of extubation, the adapter and the endotracheal tube are removed over the catheters which remain in place.

Conclusion

As the life expectancy of patients with cystic fibrosis increases due to improved medical management, the need for surgery for patients with pulmonary hemorrhage also increases. We feel that careful attention to the anesthetic details such as judicious sedation, careful monitoring, awake intubation, and high FIO_2 (fraction of inspired oxygen) will help bring these cases to a gratifying conclusion.

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4. Kopman, A. F., et al.: Awake endotracheal intubation: a review of 276 cases, Anesth. Analg. **54**(3): 323 (1975).

Hand cuts heal without antibiotics

Do you need a shot of antibiotic to guard against infection from a gash on the hand?

In a report in the March 13 Journal of the American Medical Association, surgeons say No.

John A. I. Grossman, M.D., and colleagues studied records on 265 patients with hand lacerations. Some were given antibiotics and others had wounds cleaned and sewn up without the prophylactic shot.

There were only three infections in the entire 265 and no noticeable differences in the incidence of infection in the antibiotic and placebo treatment groups, Dr. Grossman says.

Simple cut hands are one of the most frequent wounds to require sutures in a busy emergency room, Dr. Grossman points out. Varying opinions have been voiced as to whether these individuals should routinely be given penicillin to prevent infection.

Thorough wound cleansing, sterile surgical techniques, and careful postoperative care are adequate for most simple wounds repaired in an emergency room from four to six hours after the injury, he says.

Dr. Grossman is a surgeon with the Cleveland Clinic, Cleveland, Ohio. The patients were treated in the emergency department of the George Washington University Medical Center, St. Louis.

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NG: Because of the potential hazard of nephro- and ototoxicity due to neomycin, care should be d when using this product in treating extensive rophic ulceration and other extensive conditions absorption of neomycin is possible. In burns more than 20 percent of the body surface is , especially if the patient has impaired renal n or is receiving other aminoglycoside anti- concurrently, not more than one application a ecommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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History of Medicine

Early Medical Photography in America (1839–1883)*

VII. American medical publications with photographs

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Part I of this series appeared in April, 1979, and dealt with the "History of Photographic Processes," followed by Part II, "Physicians and Early Photography," in the May *Journal.* "The Daguerrean Era," was in the July issue as Part III, and Part IV was concerned with the "Early Wet-Plate Era," in November. The "Beginnings of Psychiatric Photography" were described in Part V, in the February, 1980, issue, and "Civil War Medical Photography" was documented in Part VI, August, 1980. Each section included descriptions of the persons as well as the photographic processes involved.

It has been said that "one picture is worth a thousand words." Illustrations in publications have always been desirable, and in scientific works they are a necessity, to help explain or detail concepts presented.† Photography was immediately recognized to be the most inherently credible method of illustration because of its reliability and accuracy in representing the way things are. In fact, almost from the day the photographic process was presented to the world in 1839, a method of illustrating publications with photographs was sought.

The technologic development of the various forms of photography, from simple paper prints to modern video techniques, from photomicrographs of blood cells to those taken inside the human body, via fiber optic remote cameras, from the first faint photographs of the moon to close-ups of distant planets, have enabled science to advance to and visualize previously undreamed-of frontiers.** The publication of these images allows us all to share these experiences permanently. The main part of this section is concerned with this aspect of the history of medical photography: medical photographic publication.

Included in this section will be (1) a general background history of nineteenth century pre- and postphotographic illustration methods, as they apply

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Parts of this report were presented at the Fifth Annual Mid-Winter Assembly, American Physicians Fellowship, Inc., Key Biscayne, Florida, February 26, 1979, and parts at the American Association for the History of Medicine 52nd Annual Meeting, May 3 and 4, 1979, Pittsburgh, Pennsylvania.

* All photographs, unless otherwise indicated, are the personal property of Dr. Burns. Permission to reproduce any of the photographs or other illustrations appearing in this article must be obtained in writing from the institutions or parties owning the images.

† William M. Ivins, the noted curator of prints at the Metropolitan Museum of Art, author of *Prints and Visual Communications* and William Crawford in *Keepers of Light*, note that "without prints we should have very few of our modern sciences, technologies, archaeologies, or ethnologies—for all of these are dependent, first or last upon information conveyed by exactly repeatable pictorial statements. Take prints away and hearsay and rumor will spread; science will sink back into magic."[1]

** The effects of photography are so great in our modern society as to stagger the imagination. One aspect of modern photography, the development of a process of photolithography that reproduces photographs mechanically by a process of lithographic etching dependent on photography, is covered in this section. The importance of the process perhaps can be stressed by noting that besides providing for reproduction of photographs in publications and numerous other applications, a special process of photolithography is used as the basis of producing the computer memory microchip.

The microchip is a complex circuit and memory brain. One such commonly used microchip contains 64,000 separate bits of information, yet it is small enough to put through the eye of a needle! Without such microchips our modern computers and all the other complex military, business, or home electronic instruments and machinery that we use would not be possible nor so inexpensive. The first computer was a machine so large that it filled a large room, yet now, due to the development of the photolithographic microchip, its entire computational capacity can be replaced by a chip that can be placed on a finger tip.

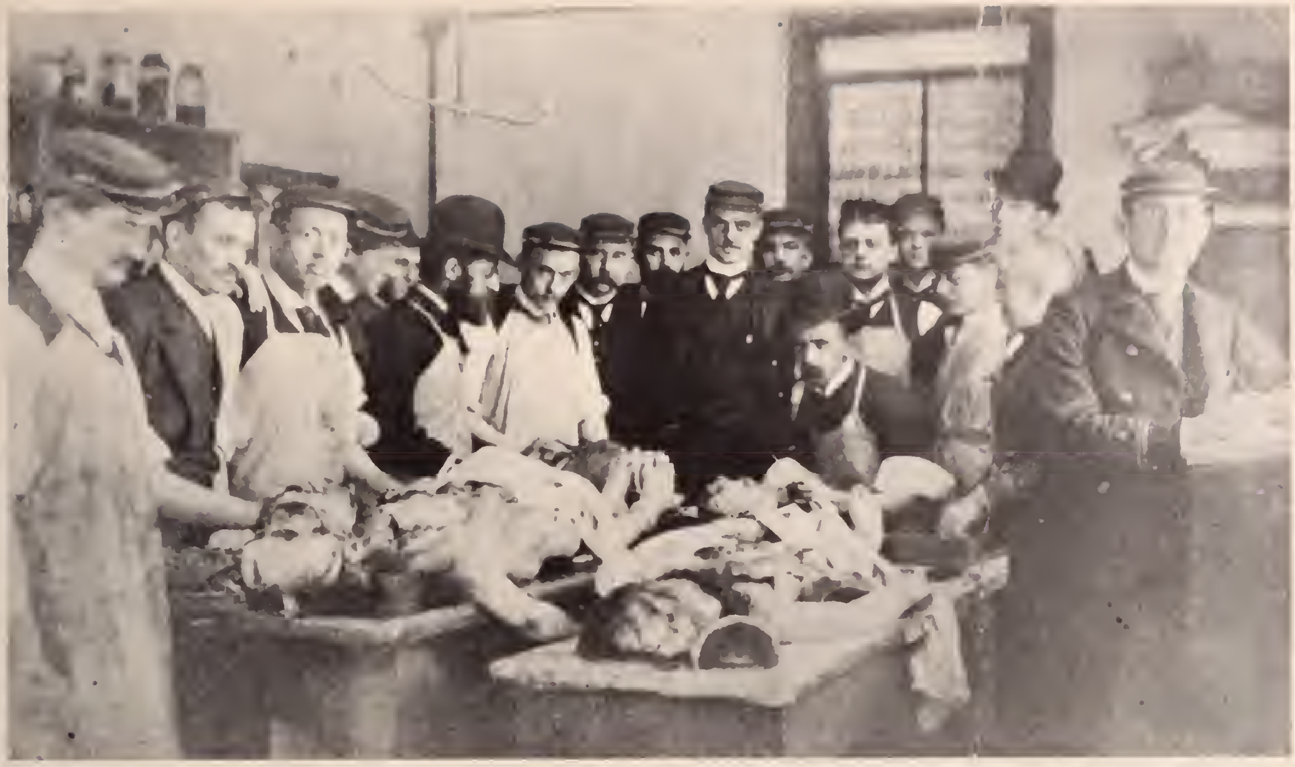

FIGURE 1. William Osler, M.D., at work in pathology dissecting laboratory at Philadelphia General Hospital, 1884 (dry plate). He was at this time professor of clinical medicine at the University of Pennsylvania. The greatest physician of the nineteenth century, Sir William Osler (1849–1919), one of the founders of the Johns Hopkins Medical School and organizer of its medical service (1889), has been the subject of hundreds of articles and numerous books. Many photographs of him have been published. This view has been chosen for our study for many reasons, among them are: (1) the photograph is an example of the use of the camera with the new dry plate and artificial lighting technique enabling pictures to be taken in various settings without the old posing constraints and considerations. (2) It is an excellent example of physician genre (at work) portraiture, and depicts a famous personality. (3) The subject is unusual; this is not anatomic class cadaver photography, which became popular in the 1890s and still is popular, but pathology dissecting laboratory photography, documenting teaching of pathology, how diseases affect the body, few other such photographs are extant from this era (courtesy the Osler Library, McGill University).

to medical publications[††]; (2) a presentation for the photohistorian, archivist, bibliophile, and collector, of a checklist of American medical publications with illustrations that were taken from or produced with actual photographs, as well as a classification of these photographic publications into meaningful categories; (3) a presentation of dry-plate medical photographs; and (4) some general considerations and terms to help better understand early medical photographs (Fig. 1).

Early nineteenth century illustration methods

The print

A print is an impression made on a substance by pressure. Essentially there are three basic methods of making prints for illustrations: relief printing, intaglio printing, and planographic printing. Each method starts off with a flat piece of wood, stone, or metal. In relief printing the parts not meant to carry ink are cut away. The design part to be printed is thus left level, carries ink, and is printed, as in woodcuts. In intaglio printing it is the other way around. The design is etched by acid or cut away with tools. The plate is inked, then wiped clean. Only the cut-out parts containing the remaining ink print. In planographic printing the plate is left flat, and the picture is drawn by various substances (oilophilic) on top of the flat surface. Ink is applied which adheres only to the drawn picture by chemical properties and this picture is then printed.[4]

Publication illustration processes

By the nineteenth century several basic processes were available for producing illustrations in books: the woodcut, metal engraving or etching, and the lithograph. Laborious hand coloring of these illustrations allowed for more realism. The invention and perfection of the chromolithograph in the midnineteenth century allowed colored printed pictures to be produced mechanically. Medical books were illustrated by these methods, and it was not uncommon for multiple processes to be utilized in one book.[*]

[††] The reader is referred to Eder's[2] *History of Photography*, Taft's[3] *Photography and the American Scene*, and Crawford's[1] *The Keepers of Light* for a more detailed study of photographic publication history.

A woodcut, the commonest form of relief printing, is made by drawing a picture in reverse on a wood block, then cutting away the wood in the spaces between the lines, leaving the desired picture raised or in relief.[†] This block can then be inked and prints made by impressions on paper. For large editions, publication methods were developed for producing a metal mold of the wood block for printing.[3] About 1855 a method of photographing directly on wood was developed, thus allowing for greater detail and realism in the produced woodcut. By 1865 this method had, for the most part, replaced the hand-drawn woodcut.

An engraving or etching is produced in a manner generally similar to a woodcut, except that such a metal as copper or steel is used instead of wood, and the parts are cut away by a fine engraving tool or chemically etched with acids.[**] Because the printing block is metal, numerous sharper copies can be made. The metal printing plate is usually used in intaglio style printing, that is the surface is wiped clean with the cut-out parts carrying the ink print. Photography on metal was also achieved (1859) and as with woodcuts helped make midnineteenth century engravings and etchings more accurate. Various styles and techniques had developed, such as mesotint, aquatint, stipple engraving, and etchings. These offered excellent linear qualities and some tonal effects as in paintings. Eventually a method of photography on zinc, using special screens and so on, allowed for invention and perfection of the modern-day halftone illustration.

Lithography, from the Greek meaning "writing or drawing on stone," was invented by Alois Senefelder (1771–1834) of Munich in 1798 and was perfected in the first decade of the nineteenth century.[5] The basis of lithography is rooted in the well-known fact that oil and water don't mix. Lithography originally involved drawing on a specially prepared flat stone with a waxed crayon or pen. The wax drawing retains the ink while the treated stone repels it. Thus, the only part printed is the drawing. This medium does not necessarily depend on working with cutting tools or acids and, therefore, was felt to be more representative of what the artist wanted to portray. Many variations in technique and process evolved. Metal plates, especially zinc, replaced the original stones. Lithography, by the midnineteenth century, had evolved into the most accurate nonphotographic way to reproduce pictures with a fair range of tones. By 1837 a three-color printing process allowed color lithographs to be produced.

It is of interest to photohistorians that Joseph N. Niĕpce's work in improving lithographic processes helped lead to his taking the first photograph in 1826 on a polished pewter plate. Both he and Daguerre produced prints by early lithographic and other processes during their search for a better way to reproduce scenes.[2]

Importance of photography in communications and illustration history

The various forms of prephotographic printmaking "limited the information men could communicate through pictures, and thus limited what could be achieved by science and technology and civilization as a whole."[6] Basically, man's visual experience was constrained by his physical field of view and his perception of the second- or third-hand interpretation of events that prints allowed.

Photography solved one of mankind's greatest problems—the "problem (of) accurate visual communication"; (for photography allowed) "exactly repeatable pictorial statements" that could be preserved for indefinite future viewing and future reevaluation.[7] Photography cracked the visual experience barrier allowing man to view accurately past events, remote places, and, especially pertinent to science, events and places the human eye could not naturally perceive.[*]

Early photography and illustrations

Among the first to attempt to produce illustrations directly from daguerreotypes were two physician scientists: Alfred Donné, M.D. (1801–1878) in Paris and Joseph Barres, M.D. (1796–1844) in Vienna in 1839 to 1840.[†] Dr. Donné etched directly into his daguerreotypes and used the etched daguerreotype plate as a printing plate. This was of limited success, and only about 40 faint impressions could be made from such a plate. No works were published with these pictures. Dr. Barres at first used nitric acid to etch his daguerreotype plates chemically. Later he developed an improved method of etching by using electric current. By this method he was able to get almost 200 impressions from one plate. In August, 1840, he published a booklet illustrated with five of his "pictures" in which he describes his invention,

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[*] *The Medical and Surgical History of the War of the Rebellion* has illustrations not only in these three basic illustrative processes and its variants but also illustrations by two types of mechanical photo duplication.

[†] Introduced at the end of the fourteenth century.

[**] Metal engraving was introduced about 1440; etching with chemicals was introduced at the beginning of the sixteenth century.

[*] Such as astronomical events, electron microscopy, slow motion-stop action photography, and infrared and x-ray photography.

[†] Their work has been described in Parts II and III of this article.

Phototyp nach der Erfindung des Professor Barres in Wien. Over the years other photographers** attempted to improve the daguerreotype etching method with somewhat greater success. However, even these efforts were not sufficient to allow the photograph on the daguerreotype plate to be adequately reproduced. This could be done only by making a copy engraving, lithograph, or woodcut of the image. Numerous publications and books will thus be found with dual captions under the illustration stating "daguerreotype by" "engraving by" (Part III, Fig. 4). The earliest known medical publication with illustrations from daguerreotypes is *Cours de Microscopie*, 1845 by A. Donné and Foucault. This work is described in Part III, July, 1979.

A daguerreotype could actually be used as an illustration in a book. This could be done by imbedding the daguerreotype in the cover(s) of the book. I have examined three German books of the 1844 to 1847 era each with a sixth plate-sized daguerrean portrait of the author imbedded in the inside front cover as a frontispiece. One of the books was a scientific treatise, two were musical scores and accompanying stories. All three were probably one of a kind issues made for the author or his family. I don't believe anyone seriously attempted to market volumes with individual daguerreotypes in the covers. Supporting this conclusion is the fact that no other such books have been reported; this is the first time that this information has been published. I do believe, however, that in the future, as European archival deposits are studied, additional such books will be found.††

Paper photographic prints

It is obvious that photographically illustrated books could be produced by pasting onto pages the easily duplicated paper photograph: the calotype or salt print perfected by William Henry Fox Talbot in 1841. Such pasted-in photographs are called "tipped-in" photographs. It was Talbot himself who published the first such book, *The Pencil of Nature* (April, 1844), illustrated with 24 tipped-in salt prints.* The first American publication with a tipped-in photo did not appear until 1853.† The earliest American scientific photographic publication with a tipped-in photograph was famed Boston surgeon John Collins Warren's *Some Fossil Impressions in the Sandstone Rocks on Connecticut River*, Boston, Tickhoe and Fields, 54 pages, issued in May, 1854. The first American book with a photograph had been published earlier in 1854 (January), *Homes of American Statesman*, with anecdotal personal and descriptive sketches by various writers.** After 1855 many American books appeared with tipped-in photographs. Most were wet-plate albumen prints, some were rare crystalotypes, calotypes, or other early paper-process photographs. In 1858, what is considered the first medically related book with photographs, *The Mind Unveiled* by Isaac Kerlin, was published. This book has at least two versions containing from two to five photographs, and has been described in detail in Part V of this article.

In general, most of these early tipped-in photographic publications are rare and of great value. Because of the necessity for using actual photographs and hand pasting them on pages made of heavier stock than a printed page, large numbers of copies could not be easily published. Fifty copies were not an unusual quantity. It was obviously necessary to develop a means of mechanically reproducing photographs so that illustrated published works could be easily produced. Eder[2] in his *History of Photography* details many of the numerous inventions and processes developed in Europe during the 1850s to 1860s. They culminated in the development of the two basic photomechanical methods which were of ultimate importance in American medical photography from 1870 to 1885: the woodburytype and the collotype.

Mechanical photoduplication in America

The first attempt at publishing a mechanical photographic medical work in America was John Dean, M.D.'s, 1864, *Smithsonian Contributions to Knowledge, No. 173*, (Washington, D.C.) *Photographs—The Grey Substance of the Medulla Oblongota and Trapezium.* This is not actually a book but a series of nine separate cardboard leaves contained in a tie portfolio case. Each card has four circular 3¼ inches diameter mounted low-power photomicrographs along with a statement about each. The photomicrographs were reproduced by the photolithography process of Lodwick H. Bradford and James A. Cutting of ambrotype fame. They developed a mechanical means of reproducing pictures on stone in 1858, almost solving the problem of halftone reproduction.†† Their method did not yield satisfactory prints because the color range and clarity

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** Hippolyte Louis Fizeau, Antoine J. F. Claudet, and Paul Pretsch.

†† In the January, 1981, journal *History of Photography* (an international quarterly) 5: 21 two books have been described in which imbedded in each front cover is a daguerreotype. These books, two volumes of Robert Burns' poems, were published in 1847. The daguerreotypes are photographs of two of the engravings that were reproduced in the books.

* Although considered the earliest published photographic book, it appeared in installments (1844 to 1846) and was preceded by several months by a privately printed memorial volume, Walters' *Record of the Deathbed of C.M.W.*, January, 1844. The frontispiece is a calotype by Talbot of a statue of the deceased Catherine Walters.

† *Photographic Art Journal*, April, 1853—a "Whipple crystalotype" photograph of Edward Anthony.

** New York, G.P. Putnam & Co., 1854, 8 vo, 469 pp.

†† U.S. Letters Patent No. 19626, March 26, 1858, was the first patent in America for a photomechanical printing method.[8]

was limited. It was not widely adopted, and the company went out of business.

It was important to have a means of producing a wider range of tones to have a marketable product. Prior "to 1870 in America there was . . . no commercially successful method of reproducing continuously the intermediate tones between pure black and white by purely mechanical processes."[9] In 1870 two European-developed processes, the albertype (collotype) and the woodburytype, were introduced in America. They dominated book and periodical publishing until the development of the modern halftone process in the 1890s.

These two types of mechanically produced photographs can be easily distinguished from each other. The woodburytype is tipped-in, that is, pasted on a page, as was done with older albumen and salt prints, while the collotype is printed directly on the page. Both types of photographs were published on pages of heavier stock than the pages with the text, and each needed special printing presses and thus could not appear on the same page as the printed text.

The woodburytype

The woodburytype,*** invented by Englishman Walter B. Woodbury (1834–1885) and patented in 1866, is visually one of the most pleasing types of photographs ever invented. Its tonal quality is wide, and its clarity is excellent, enhanced by its softness of tones. It has fine definition and an absence of grain or halftone screen effects and, most important, does not fade. Woodburytypes can be distinguished from other tipped-in photographs, such as albumen prints, in that they are clear with good color tone and do not fade. Most early albumen prints from this era are faded to some degree. The process of making a woodburytype involves a complex method of exposing a collodion negative on a gelatin film base which, when dried, is hard and varies in thickness with the tones of the original picture. The resulting gelatin relief plate was then placed in a special hydraulic press which forced the relief into a lead plate, producing a lead intaglio mold. The lead mold was then used in a specially designed hand press for printing the photographs. Warm colored gelatin was used to make the print on special smooth paper. The final print is much like a silver-salt albumen print.[10] Since each gelatin negative mold could make up to six lead printing molds, they were usually printed in sheets, cut out, trimmed, then separately mounted in books, with care being taken for margin placement, an extra costly process. Woodburytypes were used to mass print cabinet cards of personalities. In the 1870s the woodburytype was the most frequently used mechanical photographic printing process in America.

John Carbutt (1832–1905), a Chicago photographer, bought the American rights to the woodburytype and in Philadelphia formed the American Photo Relief Co. under which name the woodburytype was marketed in America. Many American medical books contain printed photographs in this process. The most common are the two volumes of the six-volume *Medical and Surgical History of the War of the Rebellion*, The Surgical Section, Part II, and Medical Section, Part II, of which at least 10,000 volumes were produced.

The albertype or collotype

The albertype was invented by Josef Albert (1825–1886) of Munich in 1869. This type of mechanical photographic print, commonly called collotype today, had numerous variations. With each modification usually came a different name such as: heliotype, heliograph, albert-type, collographic print, phototypie, ink photo, autogravure, and artotype. Although a collotype could be produced with a good range of tones, the tones of the collotype are usually less bright and have poorer definition than those of a woodburytype. However, collotypes were developed that could be printed with three colors. The great advantage of the collotype is that it can be printed directly on the page with easily preset margins, thus eliminating the problems of margination and the labor involved in pasting it on the page.

In America the process was patented by Albert in November, 1869, and the rights sold to Edward Bierstadt* of New York, who eventually sold licenses to other photographers. The albertype manufacturing process involved a photograph in relief on gelatin attached to a glass plate. The gelatin glass plate was then imbedded in plaster of paris on a printing stone which when the plaster hardened became the printing block.[11]

In 1870 Ernest Edwards, an English photographer, modified the albertype process. He patented his modification and called his process the heliotype. In manufacture it differed from the albertype in that the gelatin was thick enough to be detached from the glass plate and itself be imbedded in the plaster of paris and stone. In 1872 Edwards came to America and became associated with James R. Osgood & Co., the Boston publishers who had bought the American rights to his process. During the late 1870s the heliotype was the most popular type of collotype variant in use in America, and most American medical books in this era published with collotypes were the heliotypes of James R. Osgood & Co. The heliotype had a good range of tones but required as many as four different inkings to produce one picture. Production costs were high.

It cost as much to make collotype or woodburytype illustrations in books as it did to tip-in albumen prints. However, one major advantage was that both types of mechanical photographs were permanent,

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*** Also called the photoglyptie in France.

* Brother of Albert Bierstadt, the photographer.

since they did not fade. Up to about 1878 the woodburytype was more popular than the collotype, but then the collotype became the more common type of photomechanical illustration in medical books.

In September, 1878 the artotype, a modified albertype process, was patented in America. Invented by J. B. Obernetter of Munich, its American rights were bought by T. S. Lambert, W. A. Cooper, and A. Mueller who formed the Artotype Company of New York. Edward Bierstadt was the principal operator of the firm, and these mechanical photographs will be found signed "Artotype by Bierstadt."[†] [12]

As a result of easier production methods and ability to be produced in different colors, the artotype became the most popular type of published mechanical photograph. This popularity was to last until the invention of the modern halftone process.

The most common American medical book with heliotypes are Volume II of both Medical and Surgical Parts of the *Medical and Surgical History of the War of the Rebellion*.[**] The most common book using the artotype is George Henry Fox, M.D.'s, dermatologic atlas *Photographic Illustration, Skin Diseases, Second Series*, 1887, in which the artotypes were hand colored by Joseph Gartener, M.D.

By the mid 1880s cabinet cards of personalities were made by the collotype process by many photographers who bought licenses from Bierstadt.

As stated previously both the woodburytype and the collotype had several disadvantages when used for publication purposes, the main one being that they could not appear on the same page as printed type. Adding extra cost and time was the necessity of special presses and printing techniques, as well as special cardboard-type paper which increased the thickness and stiffness of the end product.

Halftone illustrations

It is not surprising that the long sought-after photomechanical duplication process that could be used to print photographs on the same press as printed the type, and produced by photographic means without a hand engraver, involved numerous experiments carried on by hundreds of photographers. Englishman William Henry Fox Talbot (1800–1877), inventor of the first paper photograph[††] (1837), can be credited with two major discoveries in 1852 that laid the groundwork for the modern halftone printing process. Talbot was seeking a way to make photographs permanent, because his calotype prints faded badly with time. His discoveries were (1) that sensitized gelatin could be used as an etching resist and (2) that a screen of some sort, such as a veil of gauze, could break up a picture into dots so that it could be copied by etching. He was able to produce some photographic illustrations by his method.[13]

Talbot's discoveries led to the development of the halftone, a picture whose lights and shadows are made up of dots of varying size, achieved by photographing the original through a finely lined screen.

The screen is placed between the photograph to be copied and the sensitized gelatin or other photographic printing surface. The final printed image consists of dots. The larger the dot the darker the tone; conversely, the smaller the dot the lighter the tone. A photoengraving, after proper treatment and processing, is used as a printing plate on regular printing presses and can thus appear on the same page as the print. This description is an oversimplification of the basic halftone process of photographic illustration.

Halftone type illustrations were first produced in American publications in the 1880s. The final perfected modern-day process of halftone illustration was developed by Max (1857–1926) and Louis (1846–1919) Levy and patented in 1893.[14] Halftone illustrations and their variants can easily be distinguished from other photographic processes. If one examines a modern newspaper illustration with a magnifying glass it can easily be seen that the photograph is composed of fine dots. Better quality halftone photographs such as those found in books are produced from smaller grid or line screens and have finer dots. Enlargement of a halftone to reveal minute detail is impractical for the dots will be magnified thus distorting the picture.[15]

In this article we shall concern ourselves with photographically illustrated American medical works published before 1885. These include almost all processes except the halftone illustration.

Types of published photo illustrations

Essentially there are only three types of published illustrations associated with photographs. Actual photographs (silver-salt prints) are made by any of the paper photographic processes (albumen, calotype, and so forth) and pasted onto pages (tipped-in). Photographs can be reproduced by mechanical means and printed on pages or tipped-in. Illustrations are taken from photographs and reproduced by such methods as woodcut, engraving, etching, or lithograph.

In America the earliest use of medical photos for illustrations in publications were done in the 1840s, and these were copies of the photographs made by woodcut, and so on. Numerous medical publications, periodicals mainly, had such illustrations.[*] They are not rare and are not at present of great value. The rarest and most valued are those publications with actual silver-salt prints tipped-in since they were not produced in large numbers (1854–1872). Those publications with early mechanical photographs are next in value, and indeed some of these publications are limited editions and quite rare (1872–1890). In the three groupings described, the earliest published works in each grouping are usually the most valued because they represent innovations. A general classification and listing of all presently known American medical photographically illustrated publications will be presented.[†] It is hoped that future researchers and bibliophiles will add more volumes to the list and perhaps even new categories of classification.[**]

[†] Some early artotypes may be found signed Bierstadt and Harroun, who was associated with him in the early 1880s.

[**] This is also the commonest volume with woodburytypes.

[††] The calotype.

[*] See Part III, July, 1979, page 1259.

Classification of publications with "medical" photographs

- **Class I.** *Actual photographs (silver prints) tipped-in*
  - A. Medical books
  - B. Medical periodicals
  - C. Medical monographs or reports
- **Class II.** *Mechanical photographs in publication*
  - A. Medical books
  - B. Medical periodicals
  - C. Medical monographs or reports
  - D. Medical portfolios on cards
- **Class III.** *Illustrations taken from photographs*
  - A. Medical books
  - B. Medical periodicals
  - C. Medical monographs or reports
- **Class IV.** *Publications with frontispiece photograph of the physician author (any photo process)*
  - A. Medical publications
  - B. Nonmedical publications
- **Class V.** *Publications with photographs of physician subject (any photo process)*
  - A. Memorial works
  - B. Testimonial works
- **Class VI.** *Publications written by a physician with photographs relating to nonmedical subject (any photo process)*
  - A. Books
  - B. Monographs, periodicals, and other
- **Class VII.** *Publications commonly associated with medicine (any photo processes)*

The classification

To classify the works called medical photographic publications by libraries, bibliophiles, and photograph collectors, I first listed all the presently known publications and then divided them into categories according to the classifications presented.

The works in Classes I, II, and III contain photographs of the medical subjects discussed, clinical, pathologic, and photomicroscopic, thus representing the use of photography in medical practice. As such they are the most important categories of photographs in medical publications. Class I is the rarest having original silver-salt prints tipped-in.

Class IV publications, those having the author's photograph in them, are of medical interest since they preserve an image of the physician author. New additions to this category are expected.

Class V publications are of medical interest and association only in that they each contain a photograph of a physician and were authored by a physician. I anticipate many new additions to this category in the future.

Class VI publications; subject matter usually of no medical importance but are included because the authors were physicians.

Class VII publications are of little medical importance and are just peripherally associated with medical practice.

Class I. Actual photographs (silver-salt, albumen prints) tipped-in

A. Medical books

Kerlin, Isaac Newton: **The Mind Unveiled; or A Brief History of Twenty-two Imbecile Children,** Philadelphia, U. Hunt, 1858, 8vo, 147 pp., 2 albumen prints (second edition with 5 albumen prints).

This book was written as an appeal for funds for the Pennsylvania Training School for feeble-minded children in Germantown. It has been thoroughly described in Part V of this series. The photographer was Gutekunst of Philadelphia. The introduction was by Joseph Parrish, M.D., superintendent of the school.

Narrative of Privations and Sufferings of United States Officers while Prisoners of War in the Hands of the Rebel Authorities, being a report of a commission of inquiry, appointed by the U.S. Sanitary Commission, Philadelphia, printed for the U.S. Sanitary Commission by Ring & Baird, 1864, 283 pp, 8vo, 4 cartes de viste albumen prints of starved soldiers.

This rare book, written by physicians of the U.S. Sanitary Commission, describes Southern prison conditions. It contains photographs, taken at U.S. General Hospital No. 1, Annapolis Maryland, of four liberated prisoners. These prisoners who were interned at the Belle Isle, Virginia, camp, appear as emaciated as the worst World War II concentration camp victims. This is probably the first published use of photography as propaganda to sway public opinion. The more commonly found edition was published with wood engravings from the photographs.

[†] Alison Gernsheim in her article "Medical Photography in the Nineteenth Century" gives an excellent although incomplete presentation of early European (and some American) medical books with photographs or those based on photographs.

[**] I have not given full "pagination" descriptions to the books presented, mainly because my main purpose was to classify the books and document the photographic type found within. Also the rarity and numbers of the editions of some of the books would have made accurate pagination impossible in this article. I did, however, attempt to include, where possible, book size and general number of pages. The usual publishing book size designations were used (the measurements are approximations):

FOLIO—a publication 11 by 17 inches

4to—a publication 8½ by 11 inches (quarto)

8vo—a publication 6 by 9½ inches (octavo)

12mo—a publication 4½ by 7½ inches (duodecimo)

Damon, Howard Franklin: **Leucocythemia; an essay, to which was awarded the Boylston Medical Prize of Harvard University for 1863,** Boston, J.W. Wilson & Son, 1864, small 4TO, 93 pp., with 3 albumen prints. Second Edition, Boston, DeVries, Ibarra, 4TO, 93 pp., with 5 albumen prints.

This is one of the earliest medical publications containing photographs. Two of the photographs in the first edition are of boys, the third a photograph of a drawing of blood corpuscles in leukocythemia. The photographer was William Hussey of Boston.

Otis, George Alexander: **Photographic Catalogue of the Surgical Section of the Army Medical Museum** *Photographs of Surgical Cases and Specimens*), Washington, D.C., Surgeon General's Office, 1865–1872, seven volumes, folio., each with 50 albumen prints 4″ × 6″ or larger of wounded soldiers or their pathologic specimens.

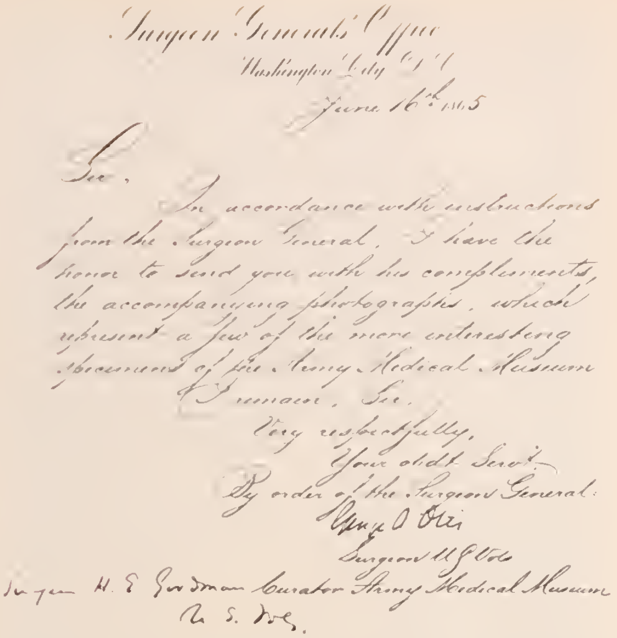
These volumes, described and illustrated in Part VI (August, 1980) of this article, represent the earliest published reference clinical photograph collection. Some of the pages have cartes de visite-size photographs on the back of the larger picture showing results of treatment. The photographs, 350 in number, document wounded Civil War soldiers or their pathologic specimens. The seventh volume, published about 1872, additionally documents some interesting civilian cases. The present Army Medical Museum at the Armed Forces Institute of Pathology has an eighth volume, similar in content to the seventh volume, which I believe to be unique. These volumes do not generally carry a publication date, but a letter of 1865, found in a set of five volumes, documents this date, as well as the practice of the Surgeon General's Office of sending copies of the volumes to the major medical libraries (Fig. 2).

Damon, Howard F.: **Photographs of Diseases of the Skin, Taken from Life,** under the Superintendence of Howard F. Damon, A.M., M.D., Boston, James Campbell, 18 Tremont Street, 1867, 4T0, 26 pp., and 24 albumen prints (4″ × 5″ or smaller) of patients.

This is the earliest American dermatologic atlas and was originally issued bimonthly beginning in 1867. Each volume was to contain two photographs. Twenty-four photographs in all were eventually published, and in 1870 they were bound as a book by James Campbell. The photographers were George Moore and A. H. Lincoln of Boston. In his 1867 prospectus for the series, Dr. Damon claims to have started photographing skin diseases in 1862. He notes in the preface of the 1870 edition that A. J. Balmanno Squire and Alfred Handy in England had published an earlier dermatologic photographic atlas (1864). This was to be the first American atlas.

Brown, Buckminster: **Cases in Orthopedic Surgery,** read before the Massachussetts Medical Society at its annual meeting, June 3, 1868, Boston, David Clapp, 1868, 8vo, 23 pp., with 8 albumen prints (4″ × 5″).

One of the leading American orthopedists of his time, Dr. Brown (1819–1891) used photography to document his treatment results. The photographs were taken by Josiah J. Hawes of the famed Southworth & Hawes firm. Five of the pictures are of plaster casts of foot deformities, the other three are paired photographs of before and after treatment.



Surgeon General's Office
Washington City D.C.
June 16th 1865

Sir,

In accordance with instructions from the Surgeon General, I have the honor to send you with his compliments, the accompanying photographs, which represent a few of the more interesting specimens of the Army Medical Museum
& I remain, Sir,

Very respectfully,
Your obdt. Servt.
By order of the Surgeon General:
Geo. A. Otis
Surgeon U.S. Vols.

Surgeon H. E. Goodman Curator Army Medical Museum
U. S. Vols.

FIGURE 2. Letter sent by the Surgeon General's Office to a medical library that accompanied the five volumes of *Photographs of Surgical Cases and Specimens* (*Army Medical Museum*) that had been published. The volumes depict clinical photographs of wounded Civil War soldiers and their pathologic specimens. The letter is of importance since the series of books (each containing 50 albumen prints) has no publication date imprinted. The letter proves, beyond a shadow of a doubt, that the Surgeon General's Office sent the volumes free to various medical libraries and most important that the publication date is 1865 (or earlier). The photographs in these volumes are thus contemporary to the Civil War. After the war, three more volumes were published. Many of the photographs in these volumes were obviously taken after the war (to 1872). Research at several other medical archival deposits yielded similar letters (courtesy, College of Physicians and Surgeons, Philadelphia).

Jerrey, Williams: **Treatise on the Cause and Cure of the "Milk Sickness" as discovered by William Jerrey,** Belleville, (Illinois), Advocate Steam Printing House, 1868, 12 mo., 21 pp., 2 albumen prints (4″ × 5″).

This small volume presents the argument that the white snake root plant is the cause of milk sickness. One of the photographs depicts Dr. Jerrey seated and holding plant specimens, the other is a closeup of the plant growing in a pot.

Jackson, J. B. S.: **Descriptive Catalogue of the Warren Anatomical Museum,** Boston, A. Williams & Co., 1870. Albumen prints frontispiece-composite of 4 photographs of a skull and the iron bar that passed through the skull.

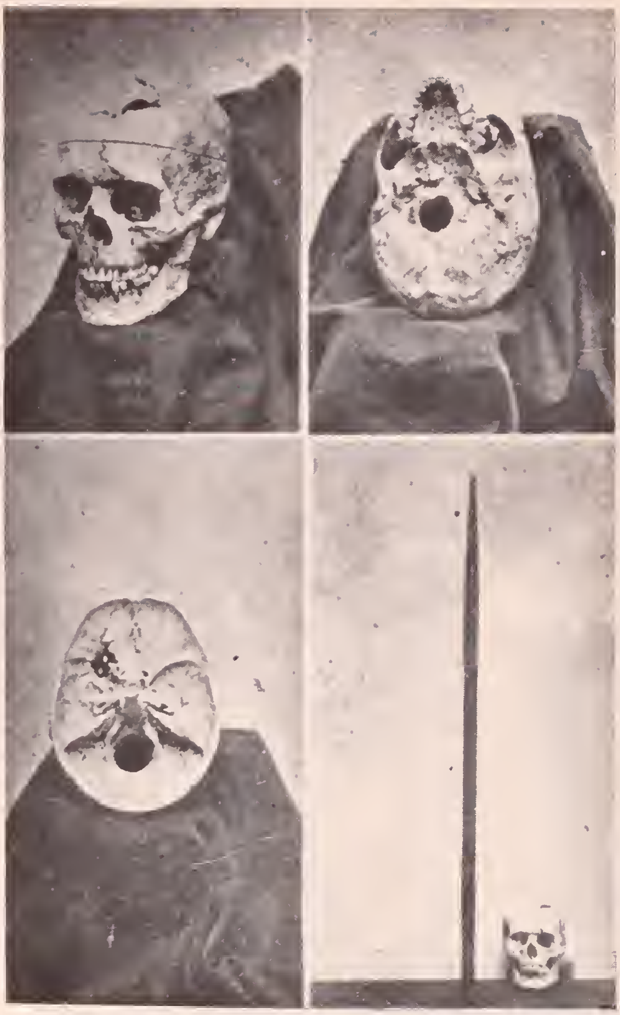


FIGURE 3. The skull and the 3-foot 7-inch 13¼-pound, iron bar represent one of the most famous medical cases of all time, that of a man who lived 12½ years after an iron bar passed through his head. The patient, 25 years old in 1848, was blasting rocks when the bar with which he was ramming charge down was driven through his head by a premature explosion. He survived his wound involving much tissue loss and exposed brain, as well as his treatment which involved his physician's searching for "foreign bodies" by passing his entire index finger into the wound from above and his other index finger from below. His main problems other than bone deformity was paralysis of the left side of his face and blindness of the left eye. After recovering, for several years he exhibited himself and his bar at fairs and exhibitions. He continued to work at manual labor occupations until 1861 when he died. The bar and the patient's head were donated to the Warren Anatomical Museum where they were studied. The case had been written up in several medical journals during the patient's lifetime, since it indeed represented the most extreme case of head injury and survival. The photographs of the skull and bar are the frontispiece photographs to the *Descriptive Catalogue of the Warren Anatomical Museum* (1870) albumen print, with description on page 147.

This catalogue, describing the items in the Warren Collection, was a cornerstone document that helped me identify early daguerrean clinical photographs not only in the Museum collection but also in the Massachussetts General Hospital Collection. Although itself containing only one composite photograph (Fig. 3), the book is important in photographic history in that it documents early medical photography in Boston.

Rüdinger, Nicolaus: **Atlas of the Osseous Anatomy of the Human Ear comprising a portion of the Atlas of the Human Ear,** by N. Rüdinger, translated and edited with notes and an additional plate by Clarence J. Blake, M.D., Boston, A. Williams, 1874, sm. folio, 23 pp., 1 albumen print frontispiece and 8 albertypes.

The frontispiece albumen print was taken by Metcalf and Welldon of Boston. Interestingly, the other eight photographs are mechanical prints and were printed by the albertype process by Joseph Albert himself in Germany. They were sent to Boston mounted on pages to be included in the American translation.

Sayre, Lewis A.: **Spinal Disease and Spinal Curvature.** (Their treatment by suspension and the use of plaster of paris bandage), London, Smith, Elder & Co.; Philadelphia, J.B. Lippincott & Co., 1878, 8vo, 121 pp., 21 albumen prints plus illustrations from photographs.

This book contains some of the most artistic of the early medical photographs. Several of them have been reproduced in books as examples of the photographic art form. Lewis A. Sayre, M.D. (1820–1900), one of the fathers of American orthopedic surgery, was professor of orthopedic surgery at Bellevue Hospital Medical College. He is noted for performing the first successful resection of a hip joint in this country in 1854, and for being the first to use plaster of paris casts (which this book documents). In 1876 his text on orthopedics was published in New York. In 1878 this work on plaster of paris bandage was published in London where Dr. Sayre was demonstrating his treatment for diseases and deformities of the spine through bodily suspension and plaster of paris bandage casts (Fig. 4 A and B). Many of the photographs in the book, however, were taken in New York, several of them at demonstrations of his technique of suspension and plaster of paris application at the New York Academy of Medicine (Fig. 4 C, D, E, F).

The photographer for Dr. Sayre at Bellevue Hospital and at the Academy of Medicine sessions was O. G. Mason. Mr. Mason became one of the most noted medical photographers of his time. He was the official hospital photographer at Bellevue and assisted in the preparation of several photographic books (Class IIA, Dalton). The photographer for some of the London photographs was J. R. Mayall, the Philadelphian who emigrated to England. Among others, photographs were taken at Guys Hospital and the Royal Orthopedic Hospital (Fig. 5).

B. Medical periodicals

Edgeworth, M. L.: Electro-physiognomy. A condensed resumé from the work of M. Duchenne (de Boulogne), **J. Psychol. Med.** 4: 76 (Jan.) 1870. Three mounted 5″ × 7″ albumen prints (copy prints of Duchenne de Boulogne photographs).

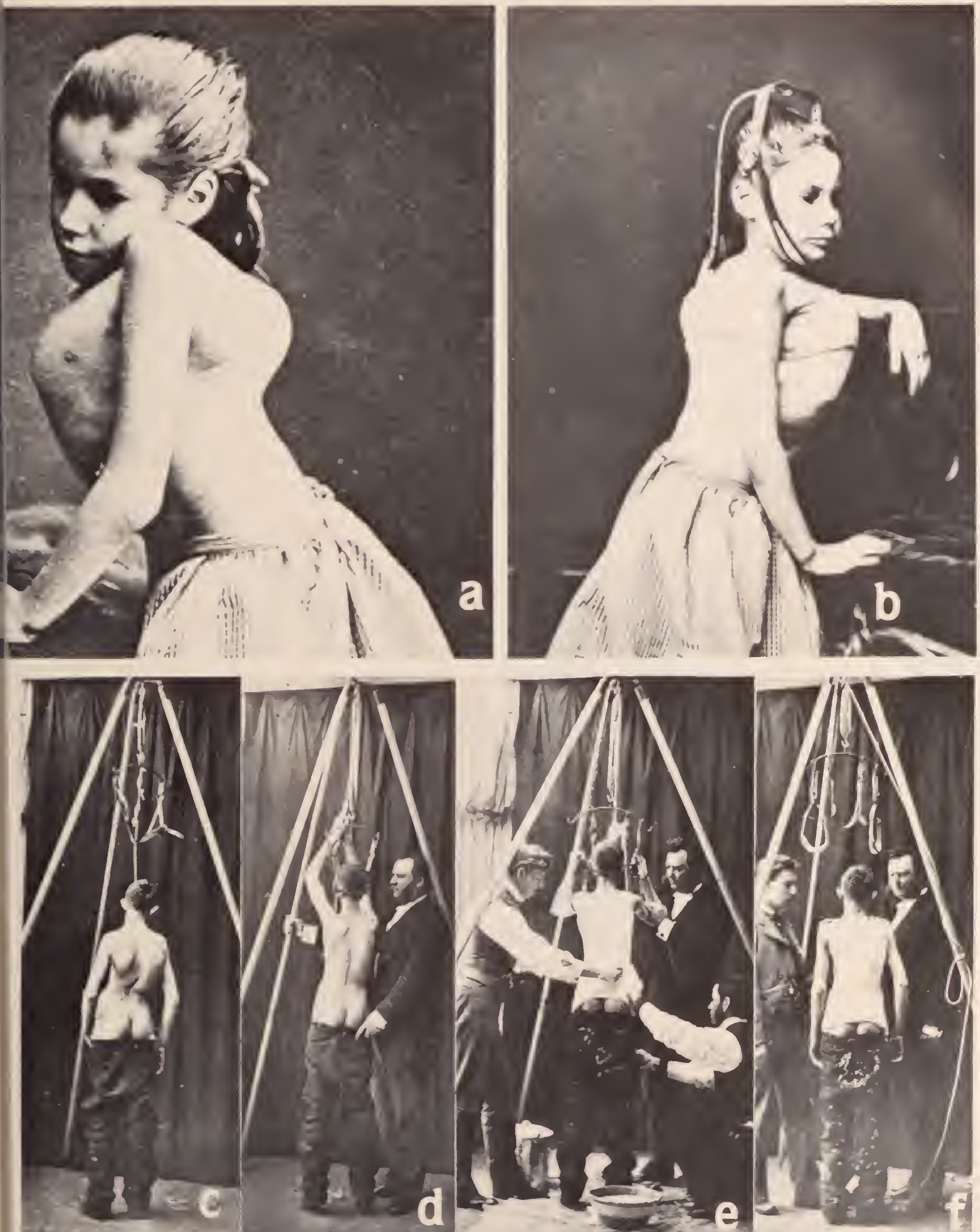


FIGURE 4. Louis Sayre, M.D., professor of orthopedics at Bellevue Hospital Medical School, developed the plaster of paris bandage. (A and B) Case of Pott's disease or angular curvature of the spine; the patient, the 10-year-old daughter of a Dr. Gooding, was treated at Guy's Hospital, London, by Dr. Sayre, with the bandage. (C through F) Here Dr. Sayre demonstrates treatment of rotary lateral curvature of the spine by suspension and fitting with a "plaster of paris bandage." The patient was suspended and fitted . . . before the surgical section of the New York Academy of Medicine, March 23, 1877. Photographs were taken during the session by O. G. Mason. The series of photographs helped show others how to do the procedure. (Albumen prints)

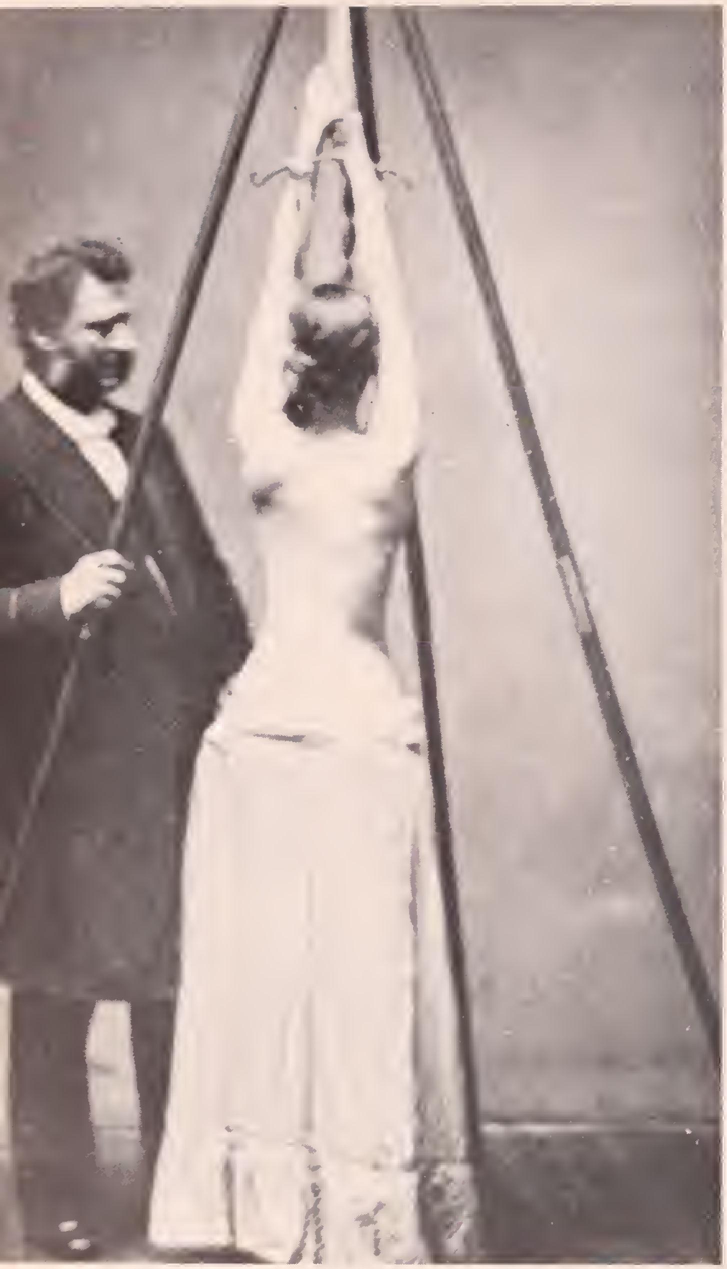


FIGURE 5. Photograph of Dr. Sayre with a young woman in his self-suspension device for treatment of her lateral curvature of the spine. Front cover shows before and after cast views. The patient was given the tripod suspension device to be used at home for a few minutes each day. At the end of three weeks a new cast was applied until her back condition was considered improved (albumen print 1877). This photograph has been reproduced several times as an example of early photographic art. It has some erotic overtones. Figures 4 and 5 are from Dr. Sayre's 1878 book on *Spinal Disease and Curvature* describing this treatment by suspension and the use of plaster of paris bandages.

G. B. Duchenne of Boulogne, France, one of the founders of modern neurology, is credited with publishing the first medical photographic atlases in 1862. These two volumes are also considered to be the first true medical books with photographs. Duchenne's photos date as early as 1856. The pictures, all mounted albumen prints, are among the most sought-after and valuable medical photographic prints. Additionally, the picture of Dr. Duchenne applying electrodes to his patients in his study of electroneurophysiology are considered works of photographic art and have been reproduced as such, perhaps more than any other early medical photographs except the "ether dome daguerreotype" of 1846. The first books, made to accompany an earlier published text, is *Album de Photographies Pathologiques Complémentaire du Livre Intitulé De L'Eléctrisation Localisée* (Paris 1862). Dr. Edgeworth's article is a summary of Duchenne's second photographic work of 1862, *Méchanisme de la Physionomie Humaine* (73 photographs). This is his study of the production of artificial expression of emotions by electrical stimulation of facial muscles. Dr. Edgeworth reproduced the famous frontispiece photo of Duchenne applying an electrode to a patient's head, as well as two of Duchenne's tableaux synaptiques. Each of the latter is a composite of 24 individual expressions by patients. Although the photographs are European, their reproduction as albumen prints in an American journal warrants their inclusion in this article. The presentation of a photograph in this journal at this early date (Jan. 1870) places it among the earliest. However, this article should not technically, I believe, be considered the first American medical photographic periodical publication because the photographs are European.

Hun, E. R.: Haematoma auris, **Am. J. Insanity, 27:** 13 (July) 1870; reprint 16 pp. Both published at Utica, New York, State Lunatic Asylum. One albumen print of ears.

This study, discussing bloody tumor of the ear found in the insane, has been described in Part V (Feb. 1980), p. 277, as probably the first use of an actual clinical photograph in an American medical journal. The condition described is due most probably to violence either self-inflicted or incurred at the hands of other inmates in insane asylums.

The albumen print, a composite of four photographs, shows gross pathologic studies and plaster casts of human ears with hematoma auris. The print is signed in the negative "Haines photo library in N.Y." This is the first instance I have found where both the journal and the reprint have had the photograph.

Duhring, L. A., and Maury, F. F., Eds.: **Photographic Rev. Med. Surg.,** Philadelphia, 1870–1872. Two volumes, 48 albumen prints of patients with disease.

The preeminent publication with early American medical photography is this now rare periodical. The intended purpose was to publish on a monthly basis two unusual and interesting cases with photographs. After 48 photographs and two years of publishing the journal was suspended. Each year was considered a volume and was usually bound as such with 24 photographs each. Almost every photograph is astounding. Many of the pictures depict the ravages of disease long conquered and additionally are artistically posed. Some of the photographs were used for years as illustrations in various textbooks and articles since they depict extreme and/or classic examples of the diseases illustrated (Fig. 6). The journal is one of the most desirable of all early American photographic publications. No copies have been available for purchase for many years.

Louis Adolphus Duhring, M.D. (1845–1913), a dermatologist, and Frank Fontoiore Maury, M.D. (1840–1879), a surgeon, both Philadelphians, were the editors.

Cheever, David W.: On excision of joints, **First M. & S. Rep. Boston City Hospital. 1:** 71 (1870). Published by the Board of Trustees. Two albumen prints, 3½″ × 5″, of child with hip excision.

This first volume of the *Reports of the Boston City Hosptal* documents the years 1864–1869. It is edited by Nelson Borland, M.D., and David Cheever, M.D. Article IV "Excisions of Joints—Undertaken to save limbs," contains 10 cases of excision of the elbow, 1 of the wrist, 11 of the hip, and 6 of the knee. Two albumen prints are included, taken in October, 1869, of a young girl showing lateral and posterior views of her successful femur (hip) resections. She wears a high shoe to compensate for leg shortening. Of the 11 hip excisions, 9 were in children, two of whom died postoperatively. Of the remaining seven, five walked very well, one with crutches, one was confined to bed. Seven lithographs are also included in this volume.

Gray, John, P.: Reparation of brain tissue after injury, **Am. J. Insanity 32:** 488, 1875–1876. One albumen print of skull fragment of a patient.

John Perdue Gray, M.D. (1825–1886), medical superintendent of the New York State Lunatic Asylum at Utica, New York, presents one of the most amazing injury cases ever to have survived, that of a man who lost most of the skull covering his brain. Dr. Gray presents three prior cases of serious head injury and survival and documents their neurologic impairment. One was the case of Phineas Gage who survived for 13 years after an iron rod passed through his head. His skull and the bar are illustrated in this report (Fig. 3). Dr. Gray's own case that prompted this article is equally astounding. In 1873 Mr. Edward Thomas, a ship's captain, was asleep on the deck of his ship as it was going through the Pennsylvania Canal. He was hit by a bridge. The bridge, unbelievably, sheared off most of the top of his skull, so that it fractured and dislodged, stripping the bone clean, leaving loose scalp to cover the brain. The piece of bone measured 6¾ by 5¾ inches and "was as clean of soft spots as if removed from a dead subject with scalpel and saw."[16] Dr. Gray presents a photograph of the dislodged bone, and indeed it is clean. Most of the right frontal lobe of the brain was also lost. In spite of this injury, the man lived a normal life, his only disability being deafness on the right side and a sense of fullness in the head when stooping over or with exertion. Dr. Gray notes that only by postmortem examination would the real condition of the brain be known and perhaps give an answer as to a "mode of reparation." Today we know the brain does not repair itself.

Dr. Gray was editor of the *American Journal of Insanity* which was published by the Asylum in Utica. It was the first journal in America devoted to insanity and became known worldwide. It is of photohistorical importance that more real photographic prints appeared in this journal than in any other regularly published American medical journal, obviously excluding the two short-lived journals of the 1870s described herein, devoted to medical photography.

Sherwell, S.: Pemphigus foliaceus (of Cazenave) Case and remarks, **Arch. Dermatol.** 3: 97 (Jan.) 1877. One albumen print 4″ × 6″ of the patient.

Dr. Sherwell presented this case of a rare skin disease, pemphigus foliaceus, at the November 14, 1876, meeting of the New York Dermatologic Society. In this condition, the body becomes covered over with a bullous eruption, denuded skin, and crusts. The photograph depicts the patient, a six-year-old girl lying in bed with her legs drawn up in an unusual pose (Fig. 7). Dr. Sherwell was clinical professor of dermatology at the Long Island Hospital Medical College.

Wadsworth, O. F.: Photograph of the fovea centralis of the retina, **Tr. Am. Opthal. Soc.** 3: 174 (1880). Sixteenth annual meeting, New York. One albumen print of retina.

This is the most famous report by Oliver Frederick Wadsworth, M.D. (1838–1911), the Boston ophthalmologist. In it he states that in 1873 he presented horizontal microscopic sections of the fovea, and that now (1880) Prof. J. W. S. Arnold of New York was able to make satisfactory photographs of his specimens. The photograph is the first accurate reproduction because it's a photograph of the fovea centralis. The fovea centralis is the most important visual reception center in the eye and is responsible for central 20/20 vision.

C. Medical monographs or reports

Van Gieson, Ransford E.: **The Application of Photography to Medical Science, Including a Direct Process to Photograph the Microscopic Field,** New York, Thomas Holman Printer, 1860, 8vo., 16 pp., albumen print of a photomicrograph 2½″ × 2½″.

This is the earliest documented use of a photograph in a medical publication and precedes by one year the publications of G. B. Duchenne de Boulogne's works. It is also the first study written in America on the use of photography in medicine (Part IV, Nov., 1979). This article is a reprint of an article in *The New York Journal of Medicine* vol 8, third series, (Jan.) 1860. The journal did not carry the photograph.

Otis, George Alexander: **Drawings, Photographs and Lithographs illustrating the histories of seven survivors of the operation of Amputation at the Hip Joint, together with abstracts of these seven successful cases,** Washington, Surgeon General's Office, 1867. Large folio, 15 pp., 9 albumen prints of patients.

Some of the photographs in this publication are credited to William Bell, the photographer at the Army Medical Museum. This rare photographic volume was also issued in the same year by the Government Printing Office as Circular no. 2, July 16, 1869, **Report on Amputations at the Hip Joint in Military Surgery,** and contained lithographs in place of actual prints.

Woodward, Joseph Janvier: **Report to the Surgeon General of the United States Army on Magnesium and Electric Lights as Applied to Photo-Micrography,** War Dept. Surgeon General's Office Washington, D.C. (Jan. 5)

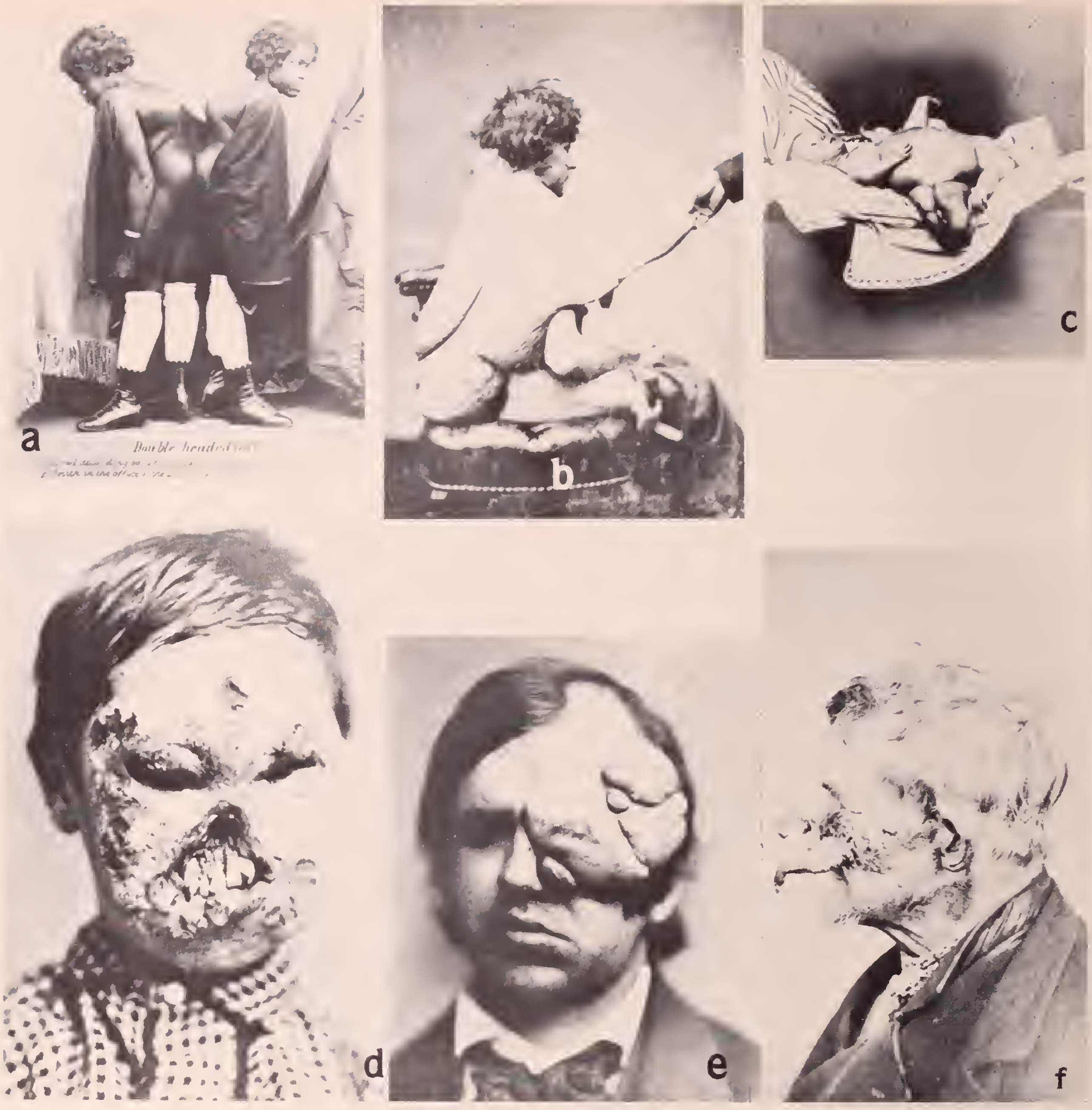


FIGURE 6. *The Photographic Review of Medicine*, a journal devoted to publishing monthly photographs and case reports of rare, unusual, or interesting cases, presented the most fascinating pictures of the extremes of disease. Many of these conditions are no longer seen in the severity depicted, and the photographs remain as legacies of perhaps what nineteenth century medical practice was like. Over a two-year period 1870–1872 48 photographs (albumen prints) were published; 12 cases are presented here. (A) The Carolina twins, Millie and Chrissie Smith, born July, 1851, were connected by a band at the ileum (termed at the time pygopagus symmetros). Anatomically they had one vulva, one vagina, and one anus; their medical problem stemmed from a vaginal fistula to the bowel, an attempt to form a second anus. They made a very good living as a sideshow attraction. (B) Dermatolysis (cutis pendula). This extreme case of "loose skin" in a 28-year-old male is a copy print of a photograph by Petit of Paris of Nelaton's, a famous case. (C) "Bicephalic monstrosity," This example of ischiopagus shows an attempt to twin–this is two bodies from torso up–but only three legs, two complete and one in the background joined. Only one set of external genitals was visible. (D) Syphilitic ulcerations of the face in a 12-year-old boy. Fortunately this manifestation of syphilis is now unheard of. Congenital syphilis wreaked havoc on innocent children in its many forms besides the ulceration; total blindness (fortunate in cases such as this) and deafness were common, among the myriad of other problems. (E) Hypertrophic tumor of forehead, eyelid, and brow. These cases were always an interesting subject for the photographer (Part III, July, 1979, Fig. 7, p. 1263). We now know this lesion is a classic finding in neurofibromatosis (von Recklinghausen's disease). (F) Horny tumors (cornus cutaneum). This 78-year-old retired sea captain sought medical advice because his horny growths broke off, and he wanted the physicians to reattach them. They were attached again with string for this photograph only, and the patient was advised to remove them.

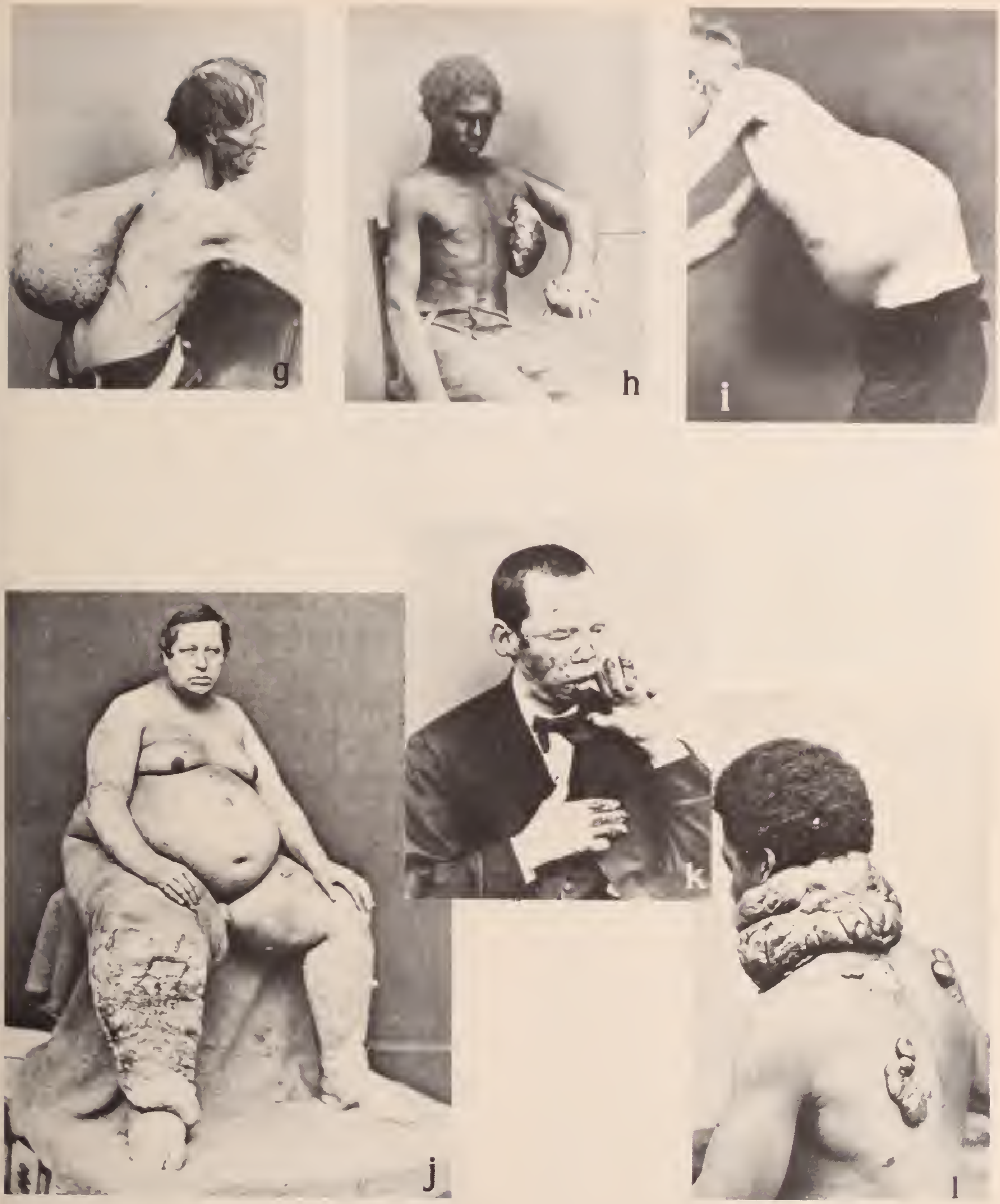


FIGURE 6 (continued). (G) Lipoma of back in 67-year-old male. A benign tumor rarely grows to the 14-pound proportions illustrated. (H) Enchondroma, the disease in a state of ulceration. This 22-year-old male was born with these congenital tumors now infected. His left hand was almost destroyed by this unusual disease process. (I) Aortic aneurysm in a 32-year-old male. Due to syphilis, this massive dilatation of the abdominal aorta eventually burst internally with resultant instantaneous death for this unfortunate patient. Rarely does one today see aneurysms of this size. (J) Elephantiasis arabicum. This 40-year-old man represents an extreme case of fluid retention in the lower extremities with skin ulceration. (K) Leprosy. Ulcerative and destructive lesions resulting in loss of digits and deformation of his face makes this man appear oriental. (L) Keloids in a 28-year-old black man. Chronic abscesses have resulted in this massive scar-tissue formation.

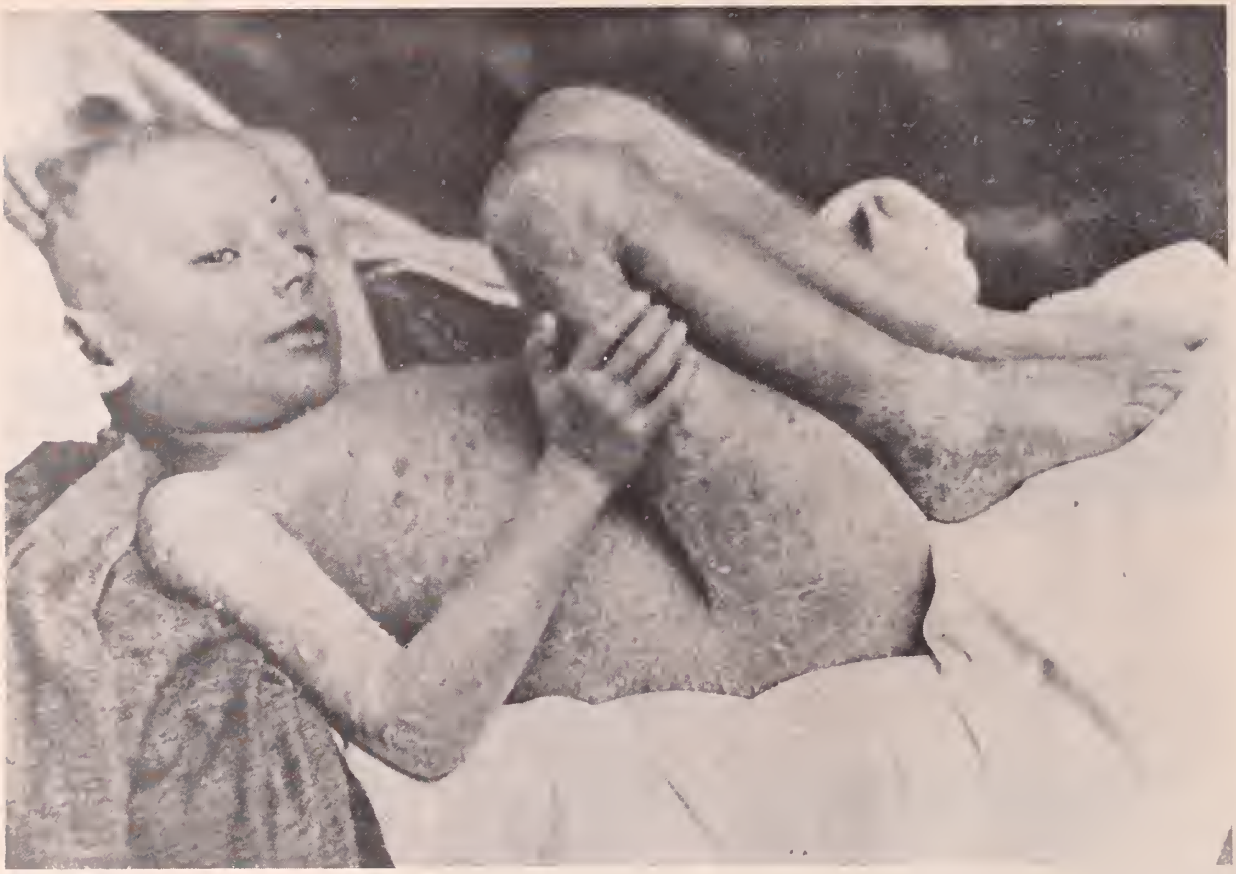


FIGURE 7. A rare skin disease in a 6-year-old girl, pemphigus foliaceous (of Cazenave), was presented by professor of dermatology S. Sherwell in the 1877 *Archives of Dermatology*. The photograph, an albumen print, is unusually posed. The reaction of any audience viewing a photograph of this unfortunate patient is bound to elicit more reactions and concern than the modern now-available closeups of the lesions alone. A photograph's aesthetic value does not only have to be one of beauty, its value can be multifold including its ability to shock or to create empathy.

1870, 4T0, 6 pp., 11 albumen prints of photomicrographs.

Joseph Janvier Woodward, M.D. (1833–1884), noted Army physician, in charge of writing the medical part of *Medical and Surgical History of the War of the Rebellion*, was the American microscopist and photomicrographist whose work made America the leader in the photomicrography field. (His work has been discussed in Part VI, Aug., 1980). In this section some of his 1870-era monographs published with photographs will be presented. Several of these reports were quite important.

In this study Dr. Woodward makes another significant contribution to the advancement of medicine. He documents his development of the use of artificial lighting to take photomicrographs and describes how others too could use it. He wonders why in Europe where "the climate is even more variable than our own" it has not been developed. He notes that Lionel Beale, M.D., in the 1868 fourth edition of his text, *How to Work With The Microscope*, mentions the possible use of electric and magnesium lamps as sources of artificial light. Dr. Woodward himself prefers electric to magnesium light; he discusses his own prior work and that the Army Medical Museum has some low-power photomicrographs taken with magnesium light by C. F. Crehore, M.D., of Boston. They were donated in 1866. He documents only one electric light photomicrograph of 84 power. He then goes on to state "I have no hesitations in claiming for the museum and myself the credit of having demonstrated the serviceable character of these lights as sources of illumination for the preparation of negatives with high powers, and of having devised a simple method which brings their use within the reach of every microscopist."

The 11 photomicrographs are presented in magnification from 340 to 2,500 diameters. Most of the objects are microscopic marine life, such as diatoms, but he also shows an epithelial carcinoma of the larynx and human red blood corpuscles.

Idem: **Report to the Surgeon General of The United States Army on certain points connected with the histology of minute blood vessels,** Washington, D.C., Surgeon General's Office, 1870, 8 pp., 11 albumen prints of photomicrographs of blood cells and vessels.

This report is among the most important since in it he photographically documents diapedesis. He had successfully repeated Julius Cohnheim, M.D.'s, work on inflammations and histologically studied it, and then photographed his findings. He demonstrated the role of white blood cells and showed them passing through blood-vessel walls.

Idem: **Report to the Surgeon General of the U.S. Army on Oxy-Calcium light as applied to photomicrography**, Washington, D.C., Surgeon General's Office (June) 1870, 3 pp., 2 albumen prints of photomicrographs.

In this report Dr. Woodward has adapted the light of the "magic lantern device," oxycalcium, to photomicrography. This is an uncommon publication.

Idem: **Report to the Surgeon General of the United States Army on an Improved Method of Photography Histological Preparations by Sunlight**, Washington, D.C., Surgeon General's Office, (July 3) 1871, 10 pp., nine albumen prints of photomicrographs.

Here Dr. Woodward again advances photomicrography with the development of new equipment and techniques.

Idem: **Photomicrographs;** Army Medical Museum, new series, vol. I to XX, Washington, D.C., 1870s.

This series of 20 volumes contains most of the albumen print photomicrographs taken by Dr. Woodward. Made as a reference set, the pictures represent the whole spectrum of 1870s medical photomicrography.

Idem: **On the Structure of Cancerous Tumors and the Mode in which adjacent Parts are Invaded**, (Smithsonian Miscellaneous Collection 266, The Toner Lecture, no. 1.), Washington, D.C., Smithsonian Institution, 1873, 40 pp., 74 albumen prints, photomicrographs of various stages of cancers.

On March 28, 1873, Dr. Woodward delivered this report demonstrating cancer and its method of spread. At the lecture he presented his 74 photographs. The lecture was published with and without the photographs as was the practice at the time. The photographic volume is rare and contains the largest number of original photographs in any one American nineteenth century medical book.

Ruschenberger, W. S. W.: **A Report on the Origin and Therapeutic Properties of Cundurango**, Washington, D.C.: Government Printing Office, 1873, 4T0, 28 pp., 22 albumen prints 9″ × 7½″.

In the early 1870s it had been reported that a cure for cancer had been found in South America using the cundurango plant. The public excitement created by the news precipitated a government expedition and a report by the U.S. Naval Bureau of Medicine. The expedition headed by Joseph G. Ayers was sent to Ecuador to directly study the plant, its therapeutic properties, and to collect specimens. W. Ruschenberger, M.D., (1807–1895) prepared the report. Unfortunately, cundurango did not cure cancer, but this splendid monograph with 22 original albumen prints of various aspects of the plant remain as a medical, botanical, and photographic legacy of the period. The photographer was Frederick Gutekunst of Philadelphia. This monograph was also published with engravings in lieu of the original photographs, as was common with many government publications.

Class II. Mechanical photographs in publications

A. Medical books

Hewson, Addinell: **Earth as Topical Application in Surgery;** (a full exposition of its use in all the cases requiring topical applications admitted on men's and women's surgical wards of the Pennsylvania Hospital during a period of six months in 1869). Philadelphia, The Medical Register Co., 1887, 2nd ed.; 1st ed., 1872, pp. 309. Both editions with 4 woodburytypes of patients showing results of treatment.

This book is of interest in the history of the development of antibiotics and chemotherapy. In it Hewson[17] extols the use of earth applied as a treatment dressing immediately during and after surgery. The photographs show the dramatic results: arms and breasts healed without infection in an age when infection was considered part of the healing process (Fig. 8).

The book documents rapid healing, clean, deodorized wounds, and decreased pain, with use of earth dressings. Ninety-three cases are documented in detail. Cases vary from gunshot injuries, compound fractures, burns, abscesses, lacerations, to surgical operations, from amputations to cancer resection.

Dr. Hewson devotes the last section of his book to an attempt to describe the modus operandi of "earth properties." He describes 11 different kinds of earth, their physical properties and chemical differences. Dr. Hewson theorizes that the effect of his dry clay earth treatment involves the action of ozone, deoxygenation, and especially the action of released ammonia.[17]

It can be assumed that the special earth that was applied directly in the wound inhibited bacterial growth and contained penicillin and/or some other such antibiotic (from mold) and/or some chemotherapeutic agent.

Interestingly, the *New York Post* of February 24, 1869, carried a story about Dr. Hewson's miracle cures. Dr. Hewson comments on this story in his preface, noting that he chose to have three years' follow-up of results before documenting his results.

This book belongs to that special group of works which, if studied at an earlier date by inquisitive and inventive minds, might have yielded great discoveries sooner than occurred. There was over a decade's delay between Sir Alexander Fleming's observation of the antibacterial action of molds and the development of the first antibiotic, penicillin. There also could have been perhaps 50 more years of antibiotic use if someone had followed up on English physician John Tyndall's 1881 essay "Floating Matter in the Air." In this work Tyndall records antibacterial action of molds and observes that certain types of bacteria are resistant to this action (gram-negative organisms). Hewson's work is yet earlier, 1869. It probably was the antibacterial action of mold in his earth that gave him his startling results.

Dr. Hewson in his preface describes the woodburytype process in detail, and this volume, of extreme medical photohistorical importance, is one of the first American medical books with photomechanical prints (woodburytypes).

Addinell Hewson, M.D., (1828–1889) graduated from Jefferson Medical College in 1850. He became a proponent of earth treatments in 1853. Besides this text, he published "On the Treatment of Fibroids of the Uterus by Means of Dry Earth," *Trans. of the A.M.A.*, 1880, vol. 21, and "Cervical Lymphadenoma Treated by the Applications of Earth," *Medical News*, Philadelphia, 1882, vol. 41.[18]

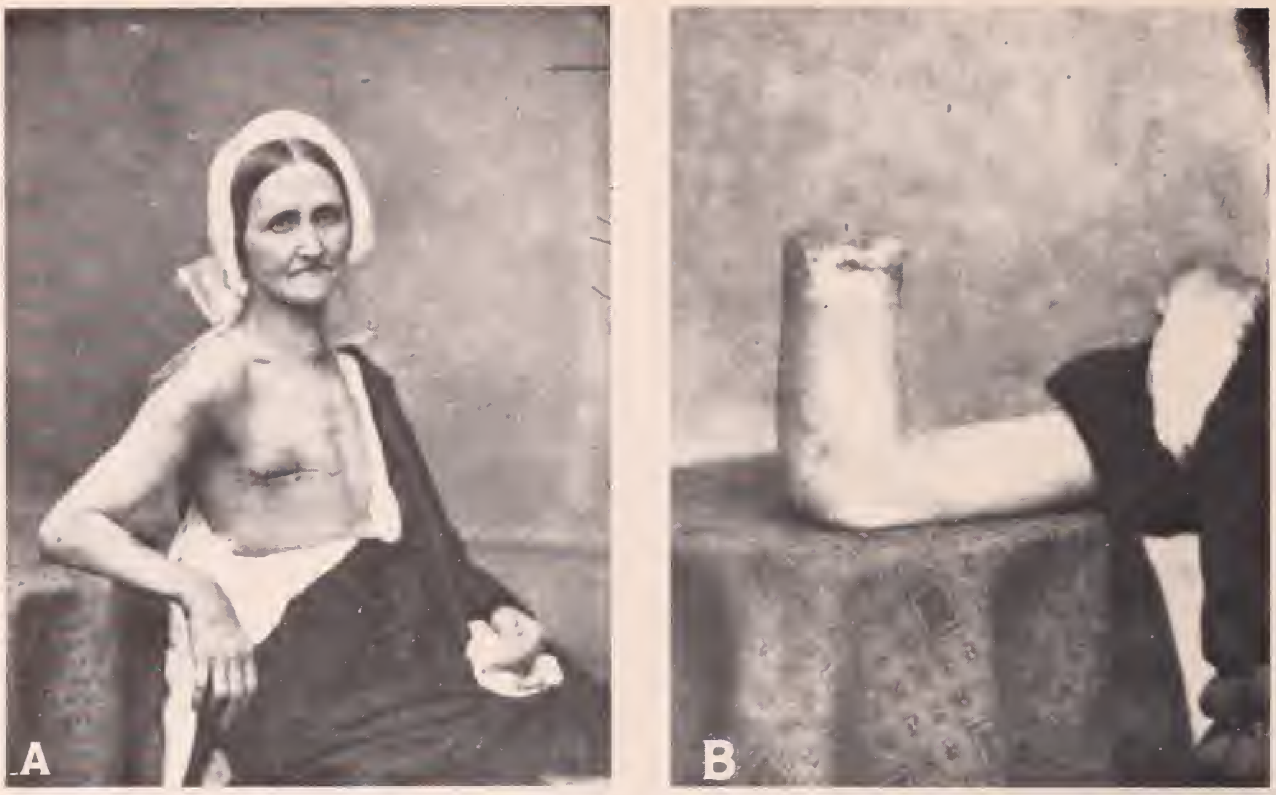


FIGURE 8. *Earth . . . in Surgery*, (1872). The use of earth as dressings by Addinell Hewson, M.D., in 1869 during and after surgery often resulted in fast-healing, clean, pain-free wounds in an age when infection was considered part of the healing process. One has to suppose some antibacterial-chemotherapeutic agent was present in Dr. Hewson's earth dressings to provide such miracle results. Unfortunately the substance was not isolated. (A) Case 79, 18 days postoperative mastectomy for carcinoma of the right breast. At operation 4 ounces of dry yellow clay were placed into the wound and not washed off until the fourteenth postoperative day. The wound had healed well. It was Dr. Hewson's practice to present his interesting cases to other prominent and visiting physicians. This patient was seen on the fourteenth day coincindentally by U.S. Navy physician W.S. Ruschenburger, M.D., author of the volume on cundurango and its supposed cancer-cure properties; the book is illustrated with photographs and discussed in this article. (B) Case 12, fifteen days postoperative, forearm amputation for osteomyelitis in old fracture. This 26-year-old man, 18 months prior to admission to Pennsylvania Hospital had multiple fractures of his right wrist. Subsequently he developed a purulent wound with osteomyelitis of the bones, of eight months' duration. After only four days of earth applications the infection decreased so much that on the fifth day he underwent an amputation of the forearm. The photograph was taken on the fifteenth postoperative day and is indeed dramatic by any standards (Hewson, page 47). (Woodburytypes)

Brigham, Charles B.: **Surgical Cases with Illustrations,** Cambridge, Riverside, H. O. Houghton & Co., 1876, 8vo. 110 pp.; 12 heliotype plates taken in San Francisco 1873–1876.

Dr. Brigham presents 25 varied surgical cases and 12 equally varied illustrations. There is also a final chapter on asepsis. The heliotypes are of good quality. They depict surgical specimens and results of treatment (Fig. 9).

Piffard, Henry Granger: **An Elementary Treatise on Diseases of the Skin for the use of Students and Practitioners,** London & New York, Macmillan & Co., 1876, 375 pp., 5 albertypes of photomicrographs

This book is the second American textbook in the field of dermatology. The five plates of photomicrographs taken by Dr. Piffard and printed by Ed. Bierstadt are sharp and clear; 49 wood engravings, most from photographs, are also included. A second edition appeared in 1891 which contained 50 tinted photographed plates, all taken by artificial light.

Dr. Piffard (1842–1910), noted dermatologist and one of the founders of the American Dermatological Society, was professor at the University of the City of New York, where, in 1875, he started teaching dermatology as a special course. It was he who truly established dermatology as a specialty in America. Dr. Piffard was extremely interested in photography and was a proponent of its use. In 1887 he published "Cutaneous Photography Made Easy," **J. Cutaneous, Genito-Urinary Dis. 6:** 41 (1888). In this report he notes the importance of documenting skin disease by photography, and he offers it as simple office procedure by use of the newly developed magnesium flash powder. He states all aspects "may be learned in ten minutes from any practical photographs."*[19]

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[*] Noah Worcester, M.D. (1812–1847) wrote the first American book on dermatology and was one of the first to teach the study of disease of the skin as a specialty which he did in Ohio in 1843–1845. However, the need for teaching dermatology as a specialty was not recognized again until Dr. Piffard did so.[20]

Medical and Surgical History of the War of the Rebellion, six volumes, Washington, D.C., Surgeon General's Office, (1870–1888), 4T0 elephantine volumes, Surgical Section, Part I, 1870; Part II (1879); Part III, 1888. Surgical Section, Part II (1876) 16 woodburytypes, 1 heliotype; Medical Section, Part II (1879) 24 woodburytypes, 8 heliotypes.

These books are the commonest of all medical photographic works with two editions of 5,000 each published. Although mechanical photographs are found in only two volumes, all books except the third Medical volume, contain medical illustrations taken from photographs (Part VI, August, 1980, p. 1453). The books with the photographs are; Otis, George A.: **Medical and Surgical History of the War of the Rebellion,** Part II, Volume II being the Second Surgical History, First Issue (1876), Second Issue (1877), 1024 pp.; Woodward, J.J.: **Medical and Surgical History of the War of the Rebellion,** Part II, Volume I, Medical History, being the Second Medical History, First issue 1879, 869 pp. Some confusion has arisen among bibliophiles concerning the correct titles because the titles given in the books by the Surgeon General's Office vary insofar as parts and volume designations. Vol. I is the Surgical, Vol. II is the Medical series, each volume has three parts.

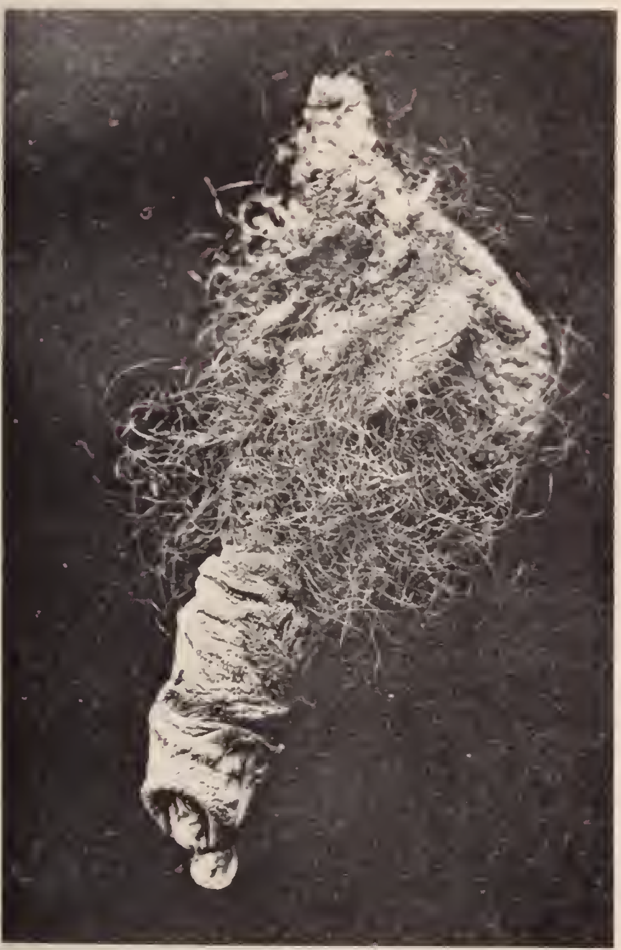

FIGURE 9. A "Remarkable injury of the perineum, scrotum, and penis with recovery," case 18 from Charles Brigham, M.D.'s, 1876 *Surgical Cases with Illustrations*. Heliotype of the skin from penis, scrotum, and mons pubis torn from a 17-year old boy by a threshing machine he was working on. The injury involved denuding the perineum including anal splinter tear. The denuded raw surface of the body of the penis and testicles were covered with new skin by pedicle grafts and transplantation of "patches of skin." The patient recovered.

Woodburytypes and heliotypes can be found in each of the two photographic volumes. However, both the number and type of photographs can vary even within editions. In the first issue of the Second Surgical History there are 17 photographs, 16 are woodburytypes and 1 is a heliotype. In another volume, I found 15 woodburytypes and 2 heliotypes. In a second edition volume I found 10 of the 16 woodburytypes to be plain lithographs, although in the table of contents they are listed as being woodburytypes. Thus, instead of 17 photographs, as few as 7 photographs can be found. I am sure further research will show other variations. The photographs are mainly of gross pathologic specimens.

The Second Medical History usually contains 25 mechanical photographs. Here again there is great variation and the "list of plates" given in the book cannot be trusted. Dr. Woodward, in the list of plates to the first issue, mentions that there are 24 woodburytypes and 1 heliotype out of 25 photographs. Yet by actual count 21 were woodburytypes and 4 were heliotypes. In the second issue of the book all the photographs are heliotypes. Since both woodburytypes and heliotypes were made of many of the same illustrations (and even lithographs) and since both editions were produced at about the same time it is obvious care was not taken as to what type of illustration went into the book. The 25 photographs consist of 17 pathologic specimens, mainly intestine, and 8 of photomicrographs (these are really facsimiles of photomicrographs). In the first issue, of the 17 pathologic photographs, 16 are woodburytypes and 1 is a heliotype.

The heliotypes are by James R. Osgood and the woodburytypes by John Corbett's American Photo Relief Printing Company of Philadelphia.

Dowse, Thomas Stretch: **Syphilis of Brain and Spinal Cord** (showing the part which this agent plays in the production of paralysis, epilepsy, insanity, headaches, neuralgia, hysteria, hypochondriasis, and other mental and nervous derangements), New York, G.P. Putnam & Sons, 1879, 8vo, 144 pp., 3 woodburytypes.

Written by an English physician, the book was published and printed in New York and dedicated to William Hammond, M.D., of Bellevue Hospital. The first woodburytype, 3½ by 5¾ inches, entitled "Syphilis of the Rectum," is a gross pathologic specimen of a portion of excised distal colon rectum. The second and third woodburytypes, 2¼ by 3½ inches, depict "General Paralysis" in which a palsy of the third and seventh facial nerves becomes evident on excitement (Fig. 10). The book also contains several colored lithographs of retinal syphilis. This volume is one of the more common photographic medical books.

Fox, George Henry: **Photographic Illustration of Skin Diseases,** New York, E.B. Treat, 1880, 4T0, 48 artotype plates colored by hand, of patients.

The first of Dr. Fox's skin atlases, this book ran into several editions and remained for over 30 years the foremost American dermatologic atlas. In the early part of the twentieth century, it was issued as a four-volume set with the illustrations reproduced by the halftone process. The artotype plates were hand colored by Joseph Gartener, M.D.

In 1887 a second edition was published: **Photographic Illustrations of Skin Diseases,** second series, 90 Photographic Cases from Life, Colored by hand, New York, E.B. Treat & Co., 1887, 4T0, 208 pp. The artotypes were also by Edward Bierstadt.

Magnin, Antoine: **Bacteria,** translated by George M. Sternberg, M.D., Boston, Little Brown, 1880., 8vo, 227 pp., 6 heliotype plates of bacteria.

This book, a translation of a European volume, must be considered American from the photohistorical point of view because five of the heliotypes are from U.S. Army Surgeon Sternberg's photomicrographs and were all published by the Heliotype Printing Co., Boston. The European edition has only lithographs. Plate IV is an American heliotype taken from an illustration in Pasteur's 1879 *Study on Fermentation.*

Fox, George Henry: **Photographic Illustrations of Cutaneous Syphilis,** New York, E.B. Treat, 1881, 4T0, 48 artotypes colored by hand.

One of the most artistic of the early dermatologic atlases, some of the prints have been recently used in exhibits on the art of photography. Dr. Gartener colored the artotypes.

Delafield, Francis: **Studies in Pathological Anatomy,** vol. I, New York, William Wood & Co., 1882. Small folio artotypes 5″ × 7″ of gross and microscopic specimens.

The photographs printed in artotype by Bierstadt were all taken by O. E. Mason of Bellevue Hospital, New York. They depict gross and microscopic anatomy. Vol. II was published in 1891 and also contains mechanical photographs.

Powers, Samuel A.: **Variola, A Series of twenty-one Heliotype plates-illustrating the Progressive Stages of the Eruption.,** Boston, Samuel A. Powers, 1882, 8vo, 21 heliotypes of patients.

There is no text other than a very brief (one-paragraph) introduction which explains the volume of 21 heliotype plates. Dr. Powers was superintendent of the Small Pox Hospital, Boston. The first 16 pictures are of the same patient. They were taken in October, 1881, consecutively, from the third to the nineteenth day of the "pox." The remaining five pictures are of different patients. This book remains as a reminder of the now-conquered disease.

Sternberg, George M.: **Photo-micrographs and How to Make Them. Illustrated by forty-seven photographs of microscopic objects, Photomicrographs, reproduced by the heliotype process,** Boston James R. Osgood

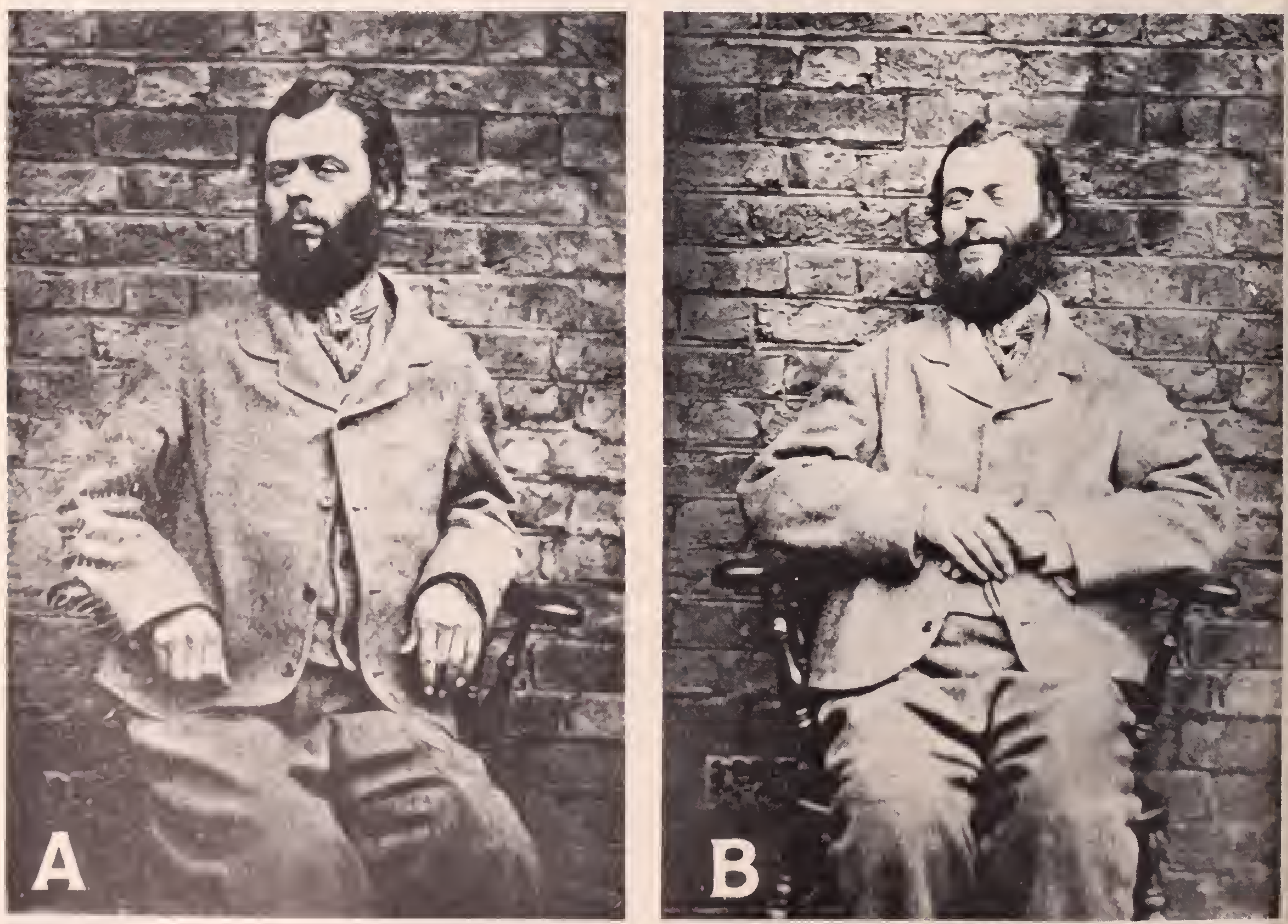

FIGURE 10. General paralysis (of the insane), two woodburytypes from Dowse's *Syphilis of the Spinal Cord and Brain.* (A) Depicts the patient resting (B) Shows the patient several minutes later "under excitement" and displaying a palsy of the third and seventh facial nerves. (Note the flatness of the cheek fold on the right side of the face.)

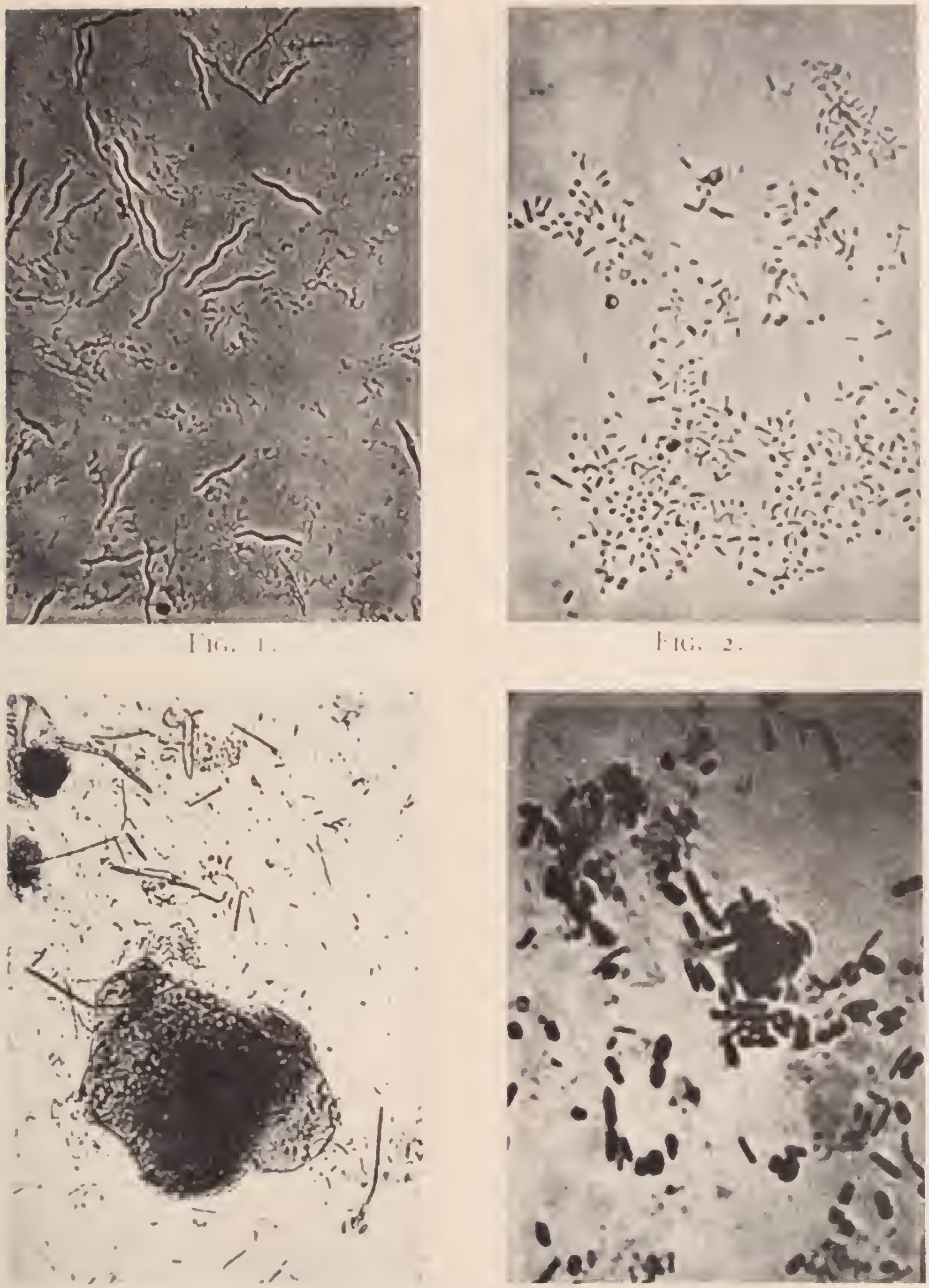

FIG. 1.

FIG. 2.

FIGURE 11. Photomicrographs of bacteria, plate 7 (heliotype), from Magnin and Sternberg's *Bacteria*, 2nd ed., 1884. Daguerrean photomicrographs were the earliest medical photographs (1839). George Miller Sternberg, M.D., pioneer bacteriologist, took these photographs in the late 1870s: figure 1, spirillum in water from a salt marsh, 400X; figure 2 bacteria in distilled water, 1,000X; figure 3, *Leptothrix buccolis* and epithelial cell from human mouth, 1,000X; figure 4, bacteria from human feces, 1,500X.

& Co., 1883, 8vo, 20 heliotype plates of photomicrographs.

George Miller Sternberg, M.D. (1839–1915), pioneer American bacteriologist and epidemiologist, was surgeon general of the United States 1893–1902. He wrote several early books on bacteriology, some discussed here, as well as a popular manual. This book on how to make photomicrographs is of obvious importance in the history of medical photography.

Magnin, Antoine, and Sternberg, George M.: **Bacteria,** New York, William Wood, 1884, 494 pp., 8vo., 9 heliotype plates of photomicrographs.

A much-expanded version of the 1880 edition of **Bacteria,** Dr. Sternberg adds his name to Dr. Magnin's as an author because of his additions, notably his "Bacteria in Surgical Lesions." Nine heliotype plates are included. Most have four photomicrographs to a plate (Fig. 11).

Dalton, John Call: **Topographical Anatomy of the Brain**, Philadelphia, Lea Bros. & Co., 1885, 3vo, folio (pages 35 × 27 cm.) with 48 heliotype plates of the brain.

This work by Dr. Dalton (1825–1889), one of America's pioneer physiologists, is America's greatest neurologic atlas of the nineteenth century. The plates by the Heliotype Printing Co. of Boston are the largest size found in any mechanical photographic medical work, and the quality of reproduction is excellent. The pictures are practically life-sized views of the human brain from three aspects: vol. I–External Views (56 pp.) has 10 heliotypes; vol. II–Horizontal Section Views (107 pp.) has 15 heliotypes; and vol. III–Vertical Section Views (175 pp.) has 23 heliotypes for a total of 48 plates. Each heliotype plate is accompanied by an explanatory outline drawing by Richmond Lennox, M.D. The photographer is O. G. Mason of New York's Bellevue Hospital.

B. Medical periodicals

The Lens: A quarterly journal of microscopy and the allied natural sciences, Chicago, the State Microscopical Society of Illinois, vols. 1–2 (1872–1873), edited by S. A. Briggs, 3 woodburytypes and one albertype.

This short-lived journal (2 years of production) contains 4 mechanical photographs associated with various articles. J. J. Woodward, M.D., supplied three woodburytypes and J. W. S. Arnold, M.D., one albertype. The first woodburytype accompanies an article reviewing Dr. Woodward's 1871 "Report . . . on Photographing Histological preparations by Sunlight." It is a picture of "triceratium." In the July, 1872, issue Dr. Arnold presents his albertype "a scale of deguria domestica." Christopher Johnston, M.D., wrote the "Preparation of Diatomaceae" and presents one of Dr. Woodward's photomicrographs of a diatom. In vol. 2, no. 4, August, 1873, Dr. Woodward wrote an article on "Norbert's 20 Band Test Plate" and presents a woodburytype of 6 bands of Norbert's test plate, along with Webb's test, "The Lord's Prayer."

This journal, rather uncommon even in major libraries, has been offered in various booksellers' catalogues. It is of interest in the medical field.

Seiler, Carl: **Microphotographs in Histology, Normal and Pathological,** (in conjunction with J. Gibbons Hunt, M.D., and Joseph G. Richardson, M.D.), Philadelphia, J.H. Coates & Co., 1876–1877, 4T0, 12 volumes, each with at least 4 heliotypes of photomicrographs.*

This journal attempted to make a contribution to medicine by making microscopic studies easier via photography. In the prospectus (vol. 1, no. 1, April, 1876) Dr. Seiler says: "This publication is intended to replace the microscope as far as possible for those physicians who have neither the opportunity nor leisure to make observations with the instrument themselves and also to furnish microscopists, for comparison, correct representations of typical specimens in the domain of normal and pathological histology."

Twelve issues were published. Each contains some pages of text and at least four pages of heliotypes ($4\frac{3}{4}$ inches in diameter), one heliotype to a page. The specimens were of representative tissues from various specimens. The journals are now quite rare.

Martin, Henry A.: Report on vaccination, **Tr. A.M.A. 28:** 187 (1877), 8vo, 2 heliotype plates of stages of vaccination (copy prints).

This study contains two heliotype plates, each representing photographs of previously published lithographs of vaccination in various stages (one by Dr. Chazal, 1836, and the other by Dr. Decanteleu, 1851). The most interesting and important aspect to photohistorians is an "Apology," dated Dec. 15, 1877, pasted in the front of the report. Dr. Martin felt the necessity to comment on and publicly apologize for the poor quality of his mechanical prints. He states . . . "The trial proofs which were first made, led me to feel perfect confidence that the excellence of the originals would be preserved in the heliotype copies. I can only say that I have been utterly disappointed. Not a single copy . . . even distantly approaches the excellence of the "proof" which was given as a specimen of what the work would be . . . The larger illustration is perhaps as good as I had a right to expect in the present apparently *very* imperfect development of the "heliotype process" in this country." This helps document the state of the use of the heliotype process in established American journals which I date from late 1877.

Broomall, Anna A.: Encapsulated, round fibroid tumor of the uterus, **Am. J. Obstet. Dis. Women & Children,** 11: 617 (July) 1878, one heliotype.

This case presentation with photograph is from a section meeting of the Philadelphia Obstetrical Society held on April 4, 1878. The photograph of a gross pathologic specimen of uterus and fibroid, signed "Heliograph of John Corbett, Philadelphia" and dated "July 1878," is entitled "Dr. Broomall's specimen of encapsulated round fibroid half natural size."

Green, John: On some improvements in instruments and appliances for diagnosis, **Tr. Am. Ophthal. Soc.** 8: 467, New York, published by the Society, 1878, 1 heliotype.

This article contains one heliotype by Robert Beneke of St. Louis, Missouri. It depicts the effect of an astigmatic lens on vision by photographing a diagram with a specially constructed camera for this purpose.

Brigham, Charles B.: Subperiosteal excision of the entire scapula and head of the humerus: Recovery, **Boston M. & S. J. 98:** 455 (Jan.–June) 1878. Two heliotype plates, each with two 5″ × 4″ prints, of clinical cases.

Dr. Brigham presents this case report with accompanying heliotype photographs of excellent quality. The first depicts the patient front and back views. The second is two views of his excised scapula.

Dr. Brigham was a proponent of the use of photography. He also published in 1876 *Surgical Cases with Illustrations* discussed in Class II A.

Porter, Charles: Cases of plastic surgery, **ibid. 98:** 423 (Jan.–June) 1878. Three heliotypes of burned patients.

There is one heliotype plate for each patient, and each plate has four different views of the patient (Fig. 12). The quality of these prints is quite good. The photographs for the heliotype plates were taken in 1875.

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* It should be noted that the term microphotographs was used in this era for what are photomicrographs. A microphotograph is today a small (microscopic) photograph usually made with the use of a microscopic device. To be seen it needs a microscope or other magnifying device.

Thomson, William: An instrument for the detection of color blindness (with photograph), **Tr. Am. Ophthal. Soc.** 3: 174, New York, published by the society, 1880, one collotype.

Dr. Thomson's Civil War photomicrographic experience was discussed in Part VI. After the war, specializing in ophthalmology, he became an expert in optics and also colorblindness. He devised standards for railroad employee examinations of which this report is one example. It is illustrated by one collotype signed "Phototype-F. Gutekunst." The picture (taken in black and white obviously) shows two wood sticks with 40 skeins of different-colored wool and 40 numbered buttons. The patient had to select the proper order of color range. This determined good color vision or color blindness.

Marcy, Henry O.: Fibroid tumors of the uterus: Microphotographs of interstitial myomatous tumors, **Tr. A.M.A.** 33: 175 (1882), 6 heliotypes, photomicrographs of uterus.

Dr. Marcy presents 6 plates of various uterine tumors, each plate has 2 or 3 photographs of microscopic sections of tumors. The photographer is identified as Black & Co., Boston. The illustrations are of course photomicrographs and not microphotographs (small pictures).

Charcot, J. M., and Richer, P.: Note on certain facts of cerebral automation observed in hysteria during the cataleptic period of hypnotism: Suggestions by the muscular sense, **J. Nerv. & Ment. Dis.** 10: 1 (Jan.) 1883, 4 heliotypes of a patient.

This article is described as an original contribution to the journal and was translated by the journal editor. The heliotypes, two plates each having two 3 by 4½ inches prints on a page, depict a woman in various stages of a cataleptic hypnotic state. The photographer was Albert Londe of La Salpêtrière.

This report by Charcot, the famous neuropsychiatrist, could not be considered American except for its original publication in an American journal. It is a most welcome addition to American medical literature.

In 1878 Jean Martin Charcot, M.D., started the photo-

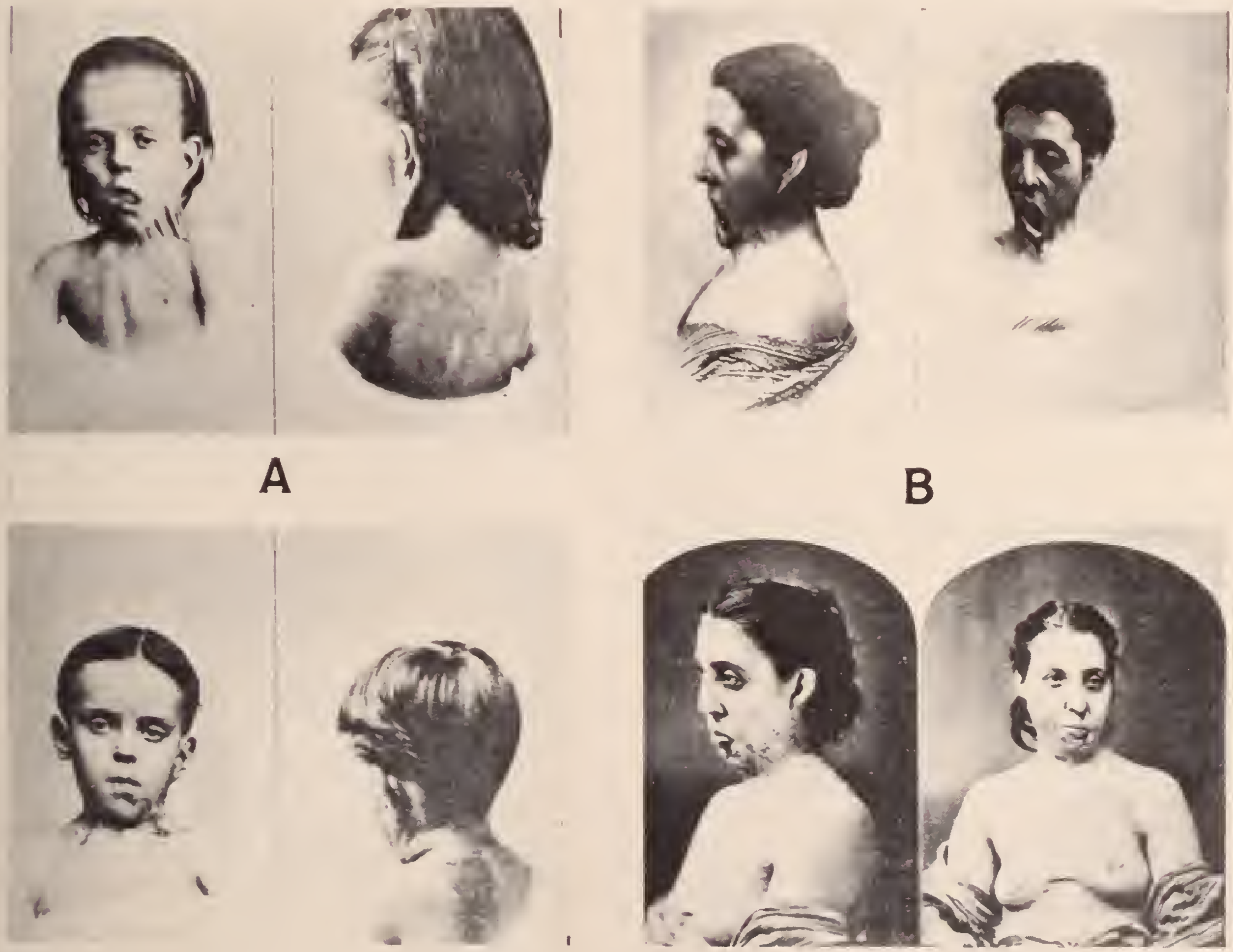

FIGURE 12. Reconstructive surgery of the face and neck, circa. 1875 These two burn cases of Chas. Porter, M.D., of the Massachusetts General Hospital, show the remarkable results achieved; documenting by heliotype prints in a medical journal is among the first such published in this country. (A) Case 1 is a six-year-old girl, with scars caused by a stove fire at age four. (B) Case 2 is a 15-year-old girl severely disfigured by a fire at age three. Five operations were required for the final result.

graphic service at the Salpêtrière Hospital. In 1882 he appointed Londe as director of photographic services. Londe went on to become, probably, France's greatest medical photographer. His pictures of cataleptic-hysterical patients became world famous. In 1893 Londe published *La Photographie Médicale*, the earliest book specifically on medical photography.

C. Medical monographs or reports

Woodward, J. J.: **Report To the Surgeon General of the U.S. Army on the Minute Anatomy of Two Cases of Cancer,** Washington, D.C., U.S. Surgeon General's Office, (Apr. 29) 1872, 4T0, 10 pp., 2 albertype plates, photomicrographs.

This is the only monograph I have found containing mechanical prints. Dr. Woodward presents two photomicrographs, each magnified 400 times. The first is a case of mammary cancer, the second a case of liver cancer. The albertypes are by Edward Bierstadt of New York.

Dr. Woodward here documents the improvements in and availability of the two mechanical photographic duplication processes, the woodburytype and the albertype. He then includes a short history of the use of the process as it concerns photomicrography and a discussion of how the new processes are performed and by whom (J. Corbutt in Philadelphia and E. Bierstadt in New York).

Dr. Woodward chose albertypes for this uncommon publication.

D. Portfolios of cards

Dean, John: Smithsonian Contributions to Knowledge, no. 173, **Photographs: The Grey Substance of the Medulla Oblongota and Trapesium,** Washington, D.C., Smithsonian Institution, 1864, 4T0, 36 photolithographs on 9 cards.

In 1864 this work was presented as a series of 9 cards, each with four circular 3¼ inches mounted low-power microphotographs. The photographs are by the photolithographic process of Bradford and Cutting (discussed in text).

The work was also published in 1865 as "Smithsonian's Contributions of Knowledge," vol. 16, art. 2, 4T0, 80 pp., with 16 plates containing 65 figures. Both editions are rare now. Dean (1831–1881) additionally prepared several sets of these photographs which he distributed privately. Oliver Wendell Holmes commented favorably on them as did European microscopists.

Class III. Illustrations taken from photographs

A. Medical books

Sampson, M. B., and Farnham, E. W.: **Rationale of Crime and its Appropriate Treatment: Being A Treatise on Criminal Jurisprudence Considered in Relation to Cerebral Organization,** New York, D. Appleton & Co. 1846, 8vo, 22 engravings from daguerreotypes.

Since phrenology was considered a psychiatric movement in the nineteenth century, although later discredited, this book is included in lists of medical works. It was discussed in Part V, February, 1980, page 276. Of the 22 engravings in the book 19 are from Matthew Brady's daguerreotypes and represent some of his earliest work. This book is also noted for being the earliest book with illustrations based on Brady's photographs. Brady's 19 pictures are of 11 male and female inmates of Blackwell's Island Prison and 8 of boy inmates at the Long Island Farm School. This and Kerlin's book are the only works in this section not written by physicians.

Draper, John William: **Human Physiology; Statistic and Dynamical or the Conditions and Course of the Life of Man,** New York, Harper & Bros., 1856, pp. 649, 300 wood engravings, of which 73 are from photographs.

This work has often been described as America's first medical book with illustrations from photographs. I believe time may show others prior to this. In Part IV of this article I was able to demonstrate illustrations from photographs in medical journals in the mid-1840s. Dr. Draper, one of America's leading pioneer photographers was discussed along with this book in Part II, May, 1979.

All of the photographs, from which the illustrations from photograph engravings were made, were taken by Dr. Draper. Of the 73, 28 are of Dr. Draper's own specimens including photomicrographs. The other 45 are from other books, and so on. Dr. Draper notes "Photography is destined to render important services to science, as well as to art. Even in the minor application of enabling us to obtain, of any desired size, correct copies of originals, it is of great use. Nearly all the copied engravings of this work have been thus obtained through the intervention of photographs."[21]

Woodward, Jos. Janvier: **Circular No. 6, War Dept. Surgeon General's Office: Reports on the Extent and Nature of the Materials Available for the Preparation of a Medical and Surgical History of the Rebellion,** Philadelphia, J.B. Lippincott & Co., 1865, 4T0, 166 pp., illustrations from photographs.

Although it has no actual photographic prints, this book is a cornerstone in American medical photographic history. It contains not only the story of Army medical photomicrographic achievements, but also numerous illustrations taken from photographs and photomicrographs. It is a microcosm of the six-volume *Medical and Surgical History of the War of the Rebellion*. The majority of the illustrations are of bone wounds.

Buck, Gurdon: **Contributions to Reparative Surgery:** (showing its application to the treatment of deformities, produced by destructive disease or injury; congenital defects from arrest or excess development: and cicatricial contractions from burns), New York, D. Appleton & Co., 1876, 8vo., 237 pp. Illustrations from photographs (pre- and postoperative pictures).

Dr. Buck (1807–1877) was a pioneer in American plastic and reconstructive surgery, and this book was his major contribution in that field and additionally the first such textbook in America. Dr. Buck used photography extensively to show operative results, a necessity in his field. Dr. Buck published the first known clinical photograph (1845) which has been described and reproduced in Part IV (Nov. 1979) of this series. Dr. Buck's other work, as well as reproduction of four of the original photographs used in preparation of "Reparative Surgery," were also shown. The original photographs used to reproduce his text are now in the Jerome P. Webster Collection at the Health Sciences Library of Columbia University, New York City.

Hamilton, Allan McLane: **Types of Insanity, An Illustrated Guide in the Physical Diagnosis of Mental Disease,** New York, Wm. Wood & Co., 1882, 4TO, engravings from instantaneous photographs.

This book contains a series of engravings of mental patients taken from photographs. The patients were inmates at various New York insane asylums (discussed Part V, Feb. 1980, p. 277). This is the first American book dedicated solely to photographs of patients. Dr. Hamilton (1848–1919), a psychiatrist, was a grandson of Alexander Hamilton. A second edition of the book was republished along with G. Fielding Blandford's *Insanity and Its Treatment*, New York, Wm. Wood & Co., 1886, 8vo.

B. Medical periodicals

The use of illustration from photographs started with the daguerreotype in 1845 (Part IV); numerous journals used such illustrations, and some of these journals are documented in Part II, July, 1979 (p. 1258). Several of the illustrations are also reproduced. By the late 1850s the use of illustration from photographs in medical journals was not uncommon.

C. Medical monographs or reports

There are numerous such works and they are of little importance in the context of this section. The most important of these works are those studies that are editions of a real photographic publication but produced without photographs. Since it was expensive to produce the photographic works, numerous copies were made with the cheaper woodcut or other such illustrations; the most familiar examples are those works produced by the Surgeon General's Office. Many of these are described herein, such as Ruschenberger's *Report . . . on Cundurango.* Some of these publications were issued with different titles: Otis George Alexander's *Report on Amputations of the Hip Joint in Military Surgery* (circular no. 2, July 1, 1867).

Class IV. Publications with frontispiece pictures of the physician author (any process)

A. Medical publications

Dixon, Edward H.: **Back Bone: Photographed from "The Scalpel,"** New York, Robert M. De Witt, 1866, 12 mo, albumen print of author.

This volume is essentially a reprinting of several issues of *The Scalpel*, a periodical issued by this medical cultist expounding various diets, drugs, and ways of life to improve health. It is not a treatise from the mainstream of nineteenth century medical thought. Interesting is the title reference to photography, "photographed from 'The Scalpel,'" or "accurately reproduced."

Fisher, G. J.: Does maternal influence have any constructive or destructive power in the production of malformations or monstrosities at any stage embryonic development? **Am. J. Insanity, 26:** 241 (Jan.) 1870, albumen print 4″ × 4″ of an engraving of the author.

I have not labeled this publication as being the earliest American medical periodical with a photograph (although technically it is) because the photograph is not of an object from life but of an engraving and, additionally, it is a portrait and not of clinical nature.

G. J. Fisher, M.D. (1825–1898), the teratologist, and his work have been discussed in Part IV of this series. This is one of the numerous studies he wrote on the topic of human development.

Clarke, Edward H.: **Visions: A Study of False Sight (Pseudopia),** Boston, Houghton, Osgood & Co., Cambridge, The Riverside Press, 1878, 320 pp. Heliotype, 2½″ × 3″ portrait of author.

This book contains an introduction and memorial sketch (by Oliver Wendell Holmes, M.D.) of Dr. Clarke (1820–1877), who died prior to finishing the work. The author attempts to explain visions or hallucination. He presents an anatomic, physiologic, and pharmacologic discussion of vision and the mechanism of seeing, as well as pertinent case histories of visual experiences and hallucinations in an attempt to understand the process. This book represents an early attempt to understand visual experiences based on the newly emerging scientific concepts of the midnineteenth century. It is of particular interest in the histories of ophthalmology, psychiatry, and basic sciences.

Da Costa, Jacob Mendez: **Harvey and His Discovery,** Philadelphia, 1879, 8vo, mounted albumen print, cabinet card size of author.

This short treatise on William Harvey's discovery of the circulation of the blood by Dr. Da Costa, a famous Philadelphia physician, is uncommon.

von Grauvogl, D.: **Textbook of Homeopathy,** translated by Geo. E. Shipman, M.D., two vols. in one, 438 pp., Chicago, C.S. Halsey Western News Co., albumen print of author.

Dr. von Grauvogl of Nürnberg wrote this textbook in 1865. He requested Dr. Shipman to translate it for the American market in 1870. It is an excellent and full treatise in the field of homeopathy. Dr. von Grauvogl in this work attempted to supplement (the founder of Homeopathy) Dr. Hahnemanns' textbook *Organon with Further Foundations in Natural Science.* A detailed scientific basis for homeopathy is presented as well as numerous case experiences. The frontispiece portrait depicts Dr. von Grauvogl seated, in full military dress.

B. Nonmedical publications

Garlick, Theodatus: **A Treatise on the Artificial Propagation of certain kinds of Fish, with the description and habits of such kinds as are most suitable for pisciculture,** Cleveland, Theo. Brown Publisher, Ohio Farmer Office, 1857. Frontispiece salt print of Dr. Garlick.

Dr. Garlick's (1805–1884) importance to photography comes not only from this early book and its rare salt print, but also from the fact that in 1840 Dr. Garlick constructed a camera and was among the first to attempt early portraiture "not in direct sunlight."[22] Although also noted as a sculptor, he is best remembered today as having done the first experiments on artificial trout breeding. Not all copies of the first edition have the photograph, and none of the second editions has it. Originally the book was published as a series of articles on Fish Culture in the *Ohio Farmer*.

Class V. Publications with photographs of the physician subject (any process) photo

A. Memorial works

Adams, John Glover: **Discourse commemorative of the life and character of Alexander Hodgdon Stevens,** New York, Randolph, 1871, 8vo, 42 pp., 4″ × 5″ mounted albumen print portrait of Stevens.

Dr. Adams (1807–1884) delivered the text of this monograph at the New York Academy of Medicine on May 25, 1871.

Barker, Fordice: Memoir of Edmund Randolph Peaslee, M.D. LL. D., **Tr. Am. Gynec. Soc.** 3: 366 (1878), heliotype portrait.

Dr. Peaslee (1814–1877), noted New York gynecologist and obstetrician, was president of the American Gynecological Society when he died.

Drysdale, Thomas: In Memoriam, Washington Lemuel Atlee, **ibid.** 3: 373 (1878), heliotype portrait.

Dr. Atlee (1808–1878), a pioneer American gynecologist and one of the founders of the American Gynecological Society, was an expert ovariotomist, performing almost 400 of these operations in his lifetime.

Hamilton, George: **Biographical Sketch of James Altken Meigs, M.D.,** (Late President of the Philadelphia County Medical Society, read before the members, Feb. 25, 1880), Philadelphia, Collins, 1880, 8vo, 22 pp., carte de visite size albumen print frontispiece of Dr. Meigs.

Dr. Meigs (1829–1880) was a noted Philadelphia physician. This memorial volume was originally published without the photograph in the *Transactions of the Medical Society of the State of Pennsylvania* for 1880.

Dr. Dyer, **Tr. Am. Ophthal. Soc.** Boston, Published by the Society, 1887, p. 407, albumen print portrait of Dr. Dyer.

Memorial article on Ezra Dyer, M.D. (1836–1887), Philadelphian ophthalmologist and one of the founders of the American Ophthalmologic Society; this is the latest date medical publication that I have found that contains an albumen print of any sort. (In the 1886 and 1887 *Transactions* (volume 4) are two other articles with collotypes).

B. Testimonial works

Curwin, John: **The Original Thirteen Members of the Association of Medical Superintendents of American Institutions for the Insane,** Warren, Pennsylvania, Cowan, 1885, 8vo., 49 pp., 13 albumen portraits.

Along with an address for the fortieth anniversary of the association, the book contains 13 short biographies of the original members, each with an albumen print portrait, although some are photographs of engravings. The association gradually developed into the present American Psychiatric Association (described in more detail in Part V, February, 1980, of this series). This is the most recently dated medical book with albumen prints. At times separately bound articles from the book are found, since each biography is complete in itself.

Class VI. Publications written by a physician with photographs relating to a nonmedical subject (any process)

Warren, John Collins: **Remarks on Some Fossil Impressions in the Sandstone Rocks of the Connecticut River,** Boston, Ticknoe and Fields, 1854, 54 pp., 8vo., albumen print of fossil imprint.

This is the first American scientific publication to have a photograph and is therefore, although common, a desired item. Dr. Warren and this publication is discussed in Part III of this article (July, 1979).

Woodward, Joseph Janvier: **Photomicrographs of the Mosquito, etc.,** Washington, Army Medical Museum, Surgeon General's Office, 1872, small folio, 34 albumen prints.

This work is composed of 34 card-mounted photomicrographs of insects with four printed pages of text. It is just one of the many photographic publications attributed to Woodward, the leading American microscopist and photomicrographist. This work is not really totally nonmedical since some of the insects portrayed were associated with disease.

Kneeland, Samuel: **The Wonders of the Yosemite Valley and of California,** Boston, Alex. Moore, 1872, 8vo, 98 pp., 10 albumen prints of scenery by J. P. Soule.

A very common book. Dr. Kneeland (1821–1888) of Boston traveled extensively and wrote this book while a professor at Massachusetts Institute of Technology.

Stillman, J. D. B.: **The Horse in Motion: as shown by Instantaneous Photography with a study on Animal Mechanics,** 1882, Boston, James R. Osgood & Co. (executed and published under the auspices of Leland Stanford), 5 heliotypes of horses.

This book is the result of the work of Eadweard James Muybridge (1830–1904), the famed photographer, yet his name does not appear on the title page. It was Muybridge who demonstrated through photographs how man and animals really move and who was a pioneer in the development of early moving pictures. Working with electronic shutter devices, multiple cameras, and eventually with the new dry-plate process film, Muybridge went beyond the limits of human visual perception, with true stop-action instantaneous photographs.

Muybridge was hired by ex-California governor and Central Pacific Railroad president Leland Stanford to solve the question of how horses trot. According to California legend, Stanford and his associates had taken a bet supposing that when horses are in full trot there is a time when all four feet are off the ground. Muybridge's studies proved Stanford correct.

Between 1872 and 1881 Muybridge worked on and off for Stanford taking his now-famous photographs in the late 1870s. In 1881 Muybridge published and copyrighted *The*

Attitudes of Animals in Motion—a series of Photographs . . . . Muybridge gradually fell out of favor with Stanford. Stanford had hired Dr. Stillman to work on a theory of animal locomotion based on scientific concepts to go with Muybridge's photographs. While Muybridge was in Europe, Stanford had Stillman write this book, **The Horse in Motion,** based on Muybridge's photographs.[23] Its publication resulted in several law suits by Muybridge against both Stanford and the Osgood Co. Muybridge was extremely displeased with the resultant volume because it had heliotypes (only 5) and all lithographs rather than the original albumen prints he preferred.

Unfortunately, Muybridge lost his suits and in addition he received only about $2,000 for his 10 years of work for Stanford.[23] He went on to continue his experiments at the University of Pennsylvania in Philadelphia (1884–1889). This resulted in the production and publication of his magnum opus *Animal Locomotion: An Electro-Photographic Investigation of Animal Movements*, 1872–1885, 781 collotype plates each 19⅛ by 24⅜ inches, available as a complete set in 11 volumes, in portfolios, or even individually. Other similar works, *Animals in Motion*, *The Human Figure in Motion*, were published later. Many of these pictures have become familiar to students of art, anatomy, and photography and have been reproduced numerous times.

Muybridge's later works such as *Man in Motion* have been considered medical-related photograpic books (Class VII); they are not listed, however, because their years of publication are beyond those that are included in this report. **The Horse in Motion,** because it was written by a physician, belongs in this section. It was not a well-prepared book. Dr. Stillman did a poor job; it was not well thought of in its time. Muybridge's victory came from the public. The book, however, remains a legacy for us in medical photographic history.

Class VII. Publications commonly thought of as being of medical interest or association

Biographical Sketch of Isaac W. Sprague, The Living Skeleton of North Hanson, Mass., Providence, Greene, 1864, 11 pp., with one mounted albumen print carte de visite (2½″ × 4″) of Mr. Sprague.

This small pamphlet documents the case of extreme emaciation of Isaac Sprague who earned his living by being shown at sideshows and museums of curiosities. At age 25, Mr. Sprague was 5 feet 5½ inches tall and supposedly weighed 35 pounds. Medical curiosities were commonly exhibited at freak shows in the nineteenth century, and photographs were taken of these individuals for sale to the public. The carte de visite of Mr. Sprague is thus much more common than this interesting pamphlet.

Stille, Charles J.: **Memorial of the Great Central Fair, for the U.S. Sanitary Commission held at Philadelphia, June 1864,** Philadelphia, U.S. Sanitary Commission, 1864, 211 pp., 4T0, 3 albumen prints.

Typical of the sanitary fair memorial volumes, this book has three albumen prints of fair activities. Dr. Stille (1819–1899) helped organize the fair.

A Record of the Metropolitan Fair in Aid of the United States Sanitary Commission Held at New York in April 1864 with Photographs, New York, Hurd & Houghton, 1867, 260 pp., 8 albumen prints (various sizes).

The photographer for the first six prints, photographs of the various exhibit rooms, was the noted, famed, Jeremiah Gurney. In several, people milling about can be seen. One picture, "View of The Wigwam," shows a band of Indians at the fair as part of the exhibit. M. Stadfeldt was the photographer for the last two pictures. The U.S. Sanitary Commission was a complete health care system set up by private citizens to help with the care and rehabilitation of Civil War casualties (discussed in Part VI, Aug. 1980). Fairs were held in various cities to help raise funds for the Commission, and many books were published commemorating the events. At least 1 other contained tipped-in photos. In addition to documenting the fair, medical-related war activities are discussed in some of these volumes.

Timetable of appearance of specific photographic type in medical publications

1845	First illustration taken from a photograph in a medical publication (journal); by 1850s such use was common in journals.
1850s	Clinical books with illustrations taken from photographs.
1864	Albumen prints tipped-in, clinical books.
1870	Albumen prints tipped-in, established journals.
1872	Mechanical prints in publications (books, monographs, and photomicrography journals).
1877	Collotypes in established medical journals; by 1878 many journals published with collotypes.
1885	End of albumen prints in medical publications.

Some general points

All photographs in publications prior to 1872 are tipped-in silver prints.*

No woodburytypes appeared in any established medical journal.

Specialty photographic journals were published in the 1872 to 1877 era.

Post albumen print paper photographs

Since one of the main disadvantages of the albumen paper print† (a silver salt eggwhite-base paper) was that it faded with time, numerous experiments were carried on to replace it. By the 1880s several new satisfactory papers for printing photographs were available. These included silver-salt gelatin papers, as well as nonsilver papers, platinum and carbon-based papers among others. By the 1890s the albumen print had all but died out, replaced by these new more permanent paper prints and mechanical photographs.

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* The one known exception is John Deans' 1864 *Photographs . . . of the Medulla Oblongota* . . . which contains photolithographs.

† It must be noted that albumen paper printing can be used with any photographic negative process, even modern-day 35 mm. film. The albumen paper is just the paper used to print from the negative and was at the time of its development in the 1850s to 1880s the best available printing out paper.

The use of actual printed paper photographs tipped-in to medical publications did not cease, however, and continued into the twentieth century. One of the first of the modern photographic paper print volumes was the 1887 card portfolio by Alex B. Randall, M.D., and Henry Lee Morse, M.D., *Photographic Illustrations of the Human Ear*–(together with pathological conditions of the drum membrane, with descriptive text), Philadelphia, P. Blackstone Son & Co., 1887. This portfolio contains 25 of the new permanent type of silver-print photographs of the ear, each 5 by 7 inches and mounted on a card. The views are of ear bones, gross internal ear anatomy, and histologic sections. The set is uncommon. The most common twentieth century medical book containing actual photographs is Arthur J. Bendell, M.D.'s *Photographs of the Fundus Oculi*, 2 volumes., Philadelphia, F. A. Davis Co., 1929, 95 full-page (5½ by 8 inches) composite photographs containing 324 single pictures and 272 stereoscopic pictures.

This brief history of the use of actual tipped-in paper photographs is given so that the readers will be aware that not all tipped-in photographic works they may find are early.** The main point is to distinguish the early albumen prints which are usually faded and sepia toned, although a wide range of tones is found.

The medical photographers

I have described in various sections of this article physicians who were photographers and who helped develop the art and practice of photography, photomicrography, and so forth. The story of the development of the medical photographer could not be complete without discussing those lay professional photographers who worked with physicians much as they do today to photograph disease, do research, or advance technique.

It becomes apparent from studying the various early medical photographically illustrated publications that several nonphysician photographers became closely associated with physicians, hospitals, or the Surgeon General's Office Army Medical Museum and should be considered among the first professional medical photographers. Much research is needed in this interesting aspect of nineteenth century medical photography.

At present the most important such photographers I have been able to identify are: William Bell and Edward Ward of Washington, D.C., O. G. Mason of New York, and Frederick Gutekunst of Philadelphia.

William Bell and Edward Ward were the photographers at the Army Medical Museum. Their work is described in Part VI, August, 1980. They were responsible for more clinical medical photographs in the 1860 to 1885 era than any other American photographers. Most of the Surgeon General's Office clinical publications in the post Civil War era contained their photographs, many times without proper credit. Some of the works in which their photographs were published and identified are: *The Medical and Surgical History of the War of the Rebellion; Catalogue of Photographs of Surgical Cases and Specimens, Army Medical Museum;* and *Reports on Amputations at the Hip Joint in Military Surgery*,

O. G. Mason of New York was the official medical photographer at Bellevue Hospital in New York and was employed by the hospital. Little is known of his life or his accomplishments. However, numerous photographs of Bellevue Hospital activities are preserved, most of which bear his imprint in the lower left hand corner and are thus easily identified as his work.

Some of his published medical photographs are found in Sayre's *Spinal Disease and Curvature* 1878, Delafield's *Studies in Pathology*, Vol. I, 1882, Vol. II, 1891, and Dalton's *Topographical Anatomy of the Brain*, 1885.

Frederick Gutekunst (1831–1917) was a noted Philadelphia photographer and one of the longest practicing photographers of that city. In 1856 he opened his "Imperial Gallery" at 712 Arch Street and operated it until his death in 1917, a period of 61 years.[24] Gutekunst in his long career adopted new processes early and was always a little ahead of his contemporaries. He became involved with mass production mechanical photographic printing of cards and at one time was an important manufacturer of celebrity cabinet cards. He, himself, supposedly compiled the largest collection of celebrity cabinet card portraits in America.[25] His mechanical photographic prints were a collotype variant, "the phototype," and some can be found signed as such. On cabinet cards the identification "the Phototype" a "photograph in printers ink" can be found.

Among his published medical works is the earliest medical book, Kerlin's 1858 *The Mind Unveiled*, as well as, Ruschenberger's 1873 *Report . . . on the Origin and Therapeutic Properties of Cundurango* and Thomson's *Instrument for the Detection of Color Blindness* (1880).

Although not a full-time medical photographer, as were the other photographers discussed in this section, Gutekunst took many medical photographs for many Philadelphia physicians. One can only assume that Gutekunst must have become known for his medical photographs; hopefully further researchers will shed more light on this aspect of his career and medical associations.

Dry-plate photography

The description of the invention of dry-plate photography by English physician Richard Leach Maddox, M.D., in 1871 and its subsequent develop-

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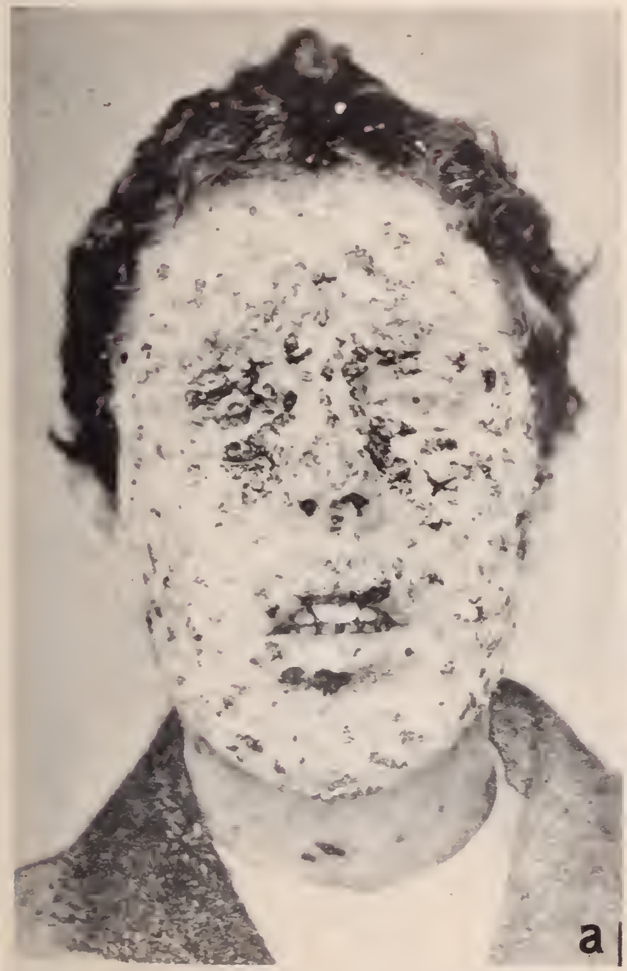
** The Southworth Company's sets of stereoviews in many instances did not carry a publication date.

ment until the 1881 recommendation that it be used industry-wide by the American Photograph Association is documented in Part I of this article published April, 1979, p. 793. The major importance of dry-plate photography is mainly twofold. First, dry plates gave faster film speeds. Pictures could be taken in 1/25 of a second or less so that true stop-action "instantaneous photographs" could be taken. Second, they gave the photographer greater mobility, for he no longer had to carry the bulky wet-plate apparatus around. The dry plate could be purchased (as with modern film) ready made to shoot and when taken could be preserved, to be developed later by him or sent to a photographic house to process. Amateurs could thus easily join the "photographers' circle," and many physicians leaped on the bandwagon (Fig. 13). By the mid-1880s, especially after the development in 1885 by Eastman of flexible film in a roll holder, medical photography was well on its way to being a standard medical tool.

In 1884 Wilcox wrote the second American article on medical photographs. By 1889 over 80 million dry plates were being produced yearly.[26] Not only was photography now used in research, as an aid in diagnosis, to illustrate disease, and to show results of treatment, but also to document everyday hospital events, as well as the physicians themselves. Electric lighting introduced in the early 1880s allowed for indoor photography anywhere (Fig. 14). Because of the massive production of and use of the dry plate by 1890, many interesting medical-related albums and personal medical photographs and other medical works are available in archives all over the country. The existence of these photographs is well known and documented. They are not covered in this report since the purpose of this series of articles was to present and clarify some of the earlier-taken medical photographs and resources.

Understanding and appreciating nineteenth century medical photographs

The photographs presented in this series of articles offer to date the widest published range and picture of American medicine during the midnineteenth century. Rather than merely offering these photographs "cold" for the reader to study I would like to review some modern photographic analytic concepts, and also offer my own suggestions as to how to approach, analyze, and get the most out of studying and viewing these photographs. I hope to help the reader better understand this rich segment of our visual



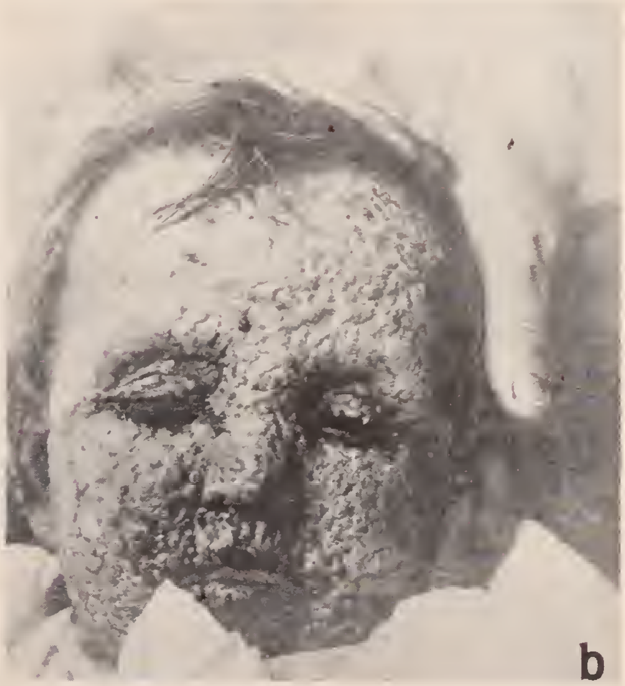
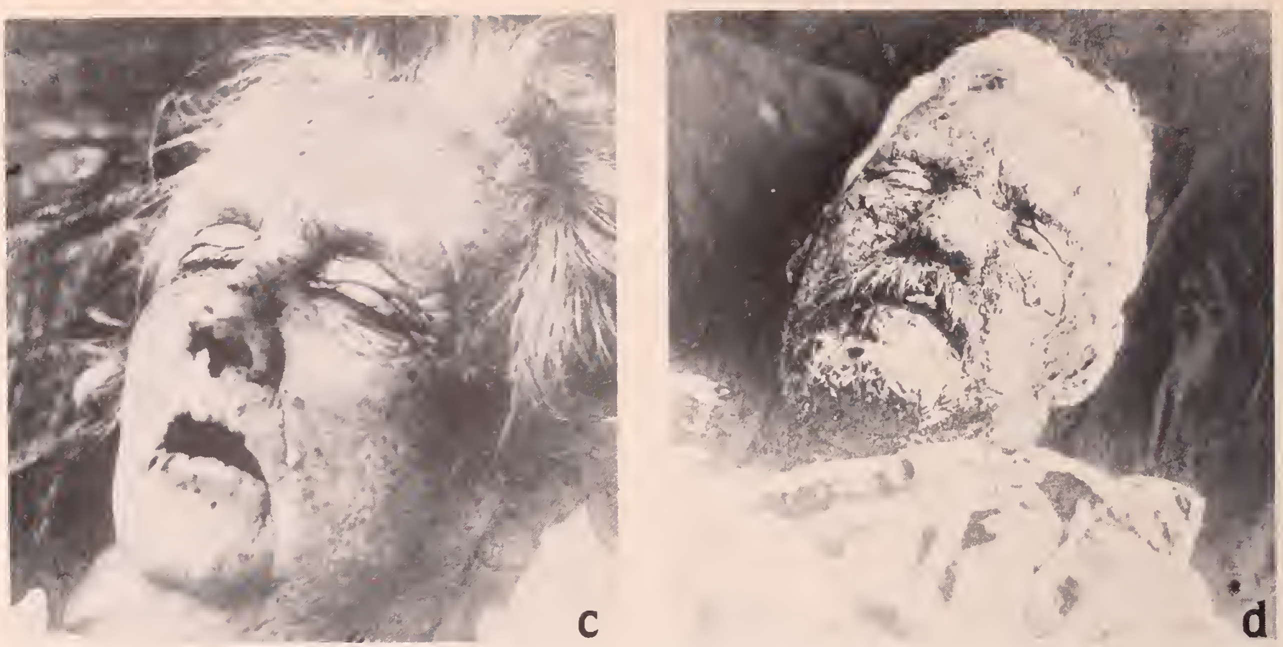


FIGURE 13. (A through D) New York City smallpox epidemic. These dry-plate photos of a mid-1880s' outbreak are part of a personal album kept by a hospital physician. Most of us in the United States are strangers to any form of this now extinct conflagration. Yet smallpox was a common nineteenth century disease here, and the death rate and morbidity was significant, as these pictures document. The scars of smallpox will be carried for life by the boy and child depicted here. The man and



woman, however, died of fulminating "black smallpox," the woman with the uncommon "black small pox without eruption–(and–6 hours before death)." Many cities had hospitals devoted solely to the treatment of smallpox.

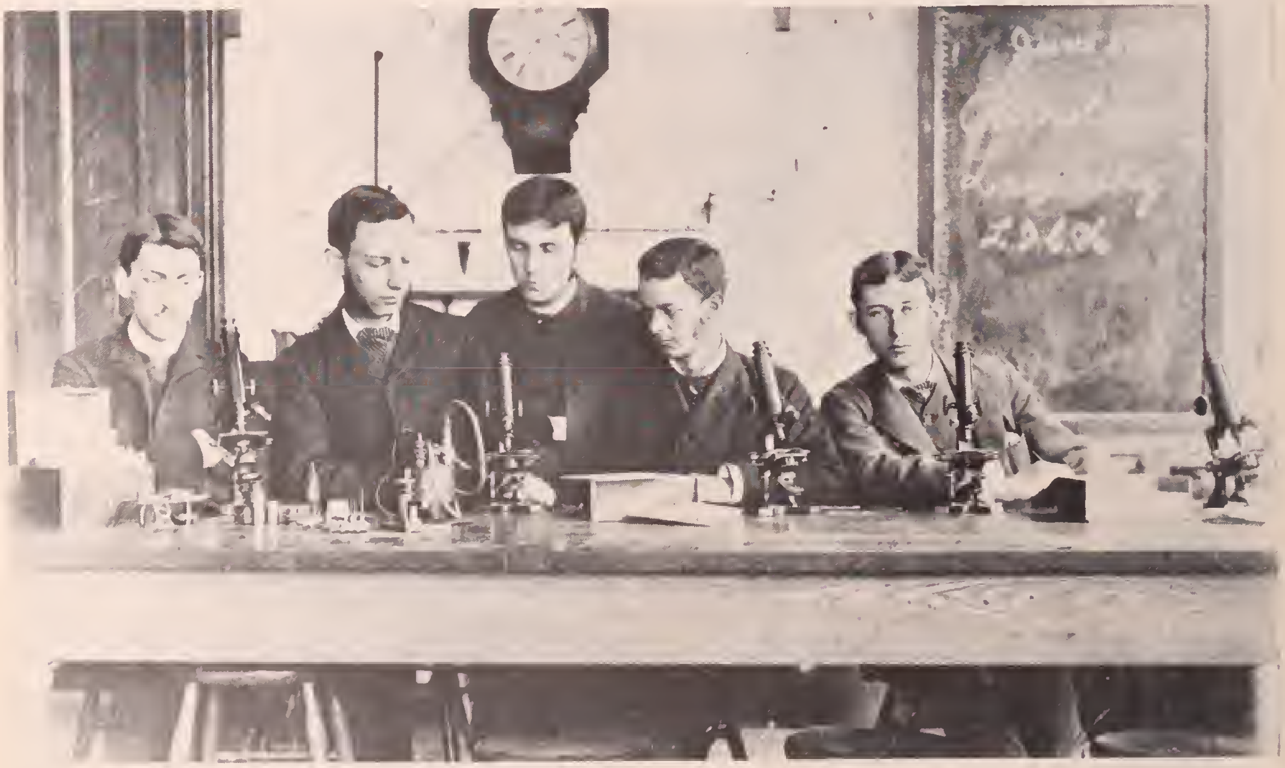


FIGURE 14. Medical students at work, pathology laboratory, Long Island College Hospital, June 3, 1883, dry plate. This photograph illustrates the type of physician occupational genre photograph that emerged in the 1880s, and is demonstrative of the changing self image of the physician. Here we see physicians using microscopes and other apparatus to study disease; other pictures from this era depict for the first time physicians studying and/or examining patients with the new technologic tools available, implying that physicians could now more scientifically study and perhaps do more for their patients. This picture is also an example of the ability of photographers in the 1880s to use the new faster speed-dry plates and also artificial lighting to take pictures in places and settings heretofore impractical. This picture is exceedingly rare in that it is documented in the most desirable way possible, in the photograph itself. On the blackboard is not only the date but the location. (The only things missing are the names of the subject and the photographer, but these can possibly be researched.)

heritage not only as historic, social, cultural documents but also perhaps as artistic works.

I found two publications most useful in helping to understand and analyze photographs, and I recommend them: William Crawford's[27] *The Keepers of Light, a History and Working Guide to Early Photographic Processes*, and Daniel Fox and James Terry's[28] "Photography and the Self Image of American Physicians, 1880–1920."

Both of these works will be reviewed and commented on; Crawford's work of importance to this study deals with "photographic syntax," and Fox and Terry's work deals with "iconographic analysis."

Photographic syntax

William Crawford's *Keepers of the Light* . . . is a valuable addition to photographic literature not only for his detailed discussion of early photographic processes but also for his presentation of his methodology for analyzing photographs. To help make his point he reviews some of William Ivins's theories on printmaking and its relationship to photography.* Ivins had importantly pointed out that "historically printmaking had not been practiced as an art form entirely for its own sake . . . (as it is today) . . . but as a way of distributing visual information,"[27] and that "the significance of photography could never be understood until one understood the problems it solved—that is the problem of accurate visual communication."[29] Photography made for credible reproducible visual experiences which printmaking did not allow. It forever changed man's concepts of the world and of himself. Crawford[29] notes that Ivins, although presenting a masterful work, fell short when he postulated that "photography and the photomechanical process had no syntax,"* that is, to his definition, no systematic organization of lines to form the picture. Crawford[30] shows that photography does indeed have its own syntax and in so doing expands Ivins's definition. He states that the syntactical structure for the language of photography . . . does not depend on the photographer but on the chemical optical and mechanical relationships that make photography possible. Crawford[31] in his definition of photographic syntax states that the photographer can only do what the technology available at the time permits him to, that is "In photography the syntax is technology. It is whatever combination of technical elements is in use. The combination determines how well the technology sees and thus sets the limits on what photographers can communicate through their work." His methodology of analysis and understanding of photographs requires some comprehension of basic photography and the various photographic processes, media, and equipment.

Crawford breaks the syntax up into three basic technologic elements: the camera syntax, the light-sensitive plate or film syntax, and the printing method syntax.†

Camera syntax. It's obvious that the type of camera used (still, movie, video, or daguerrean) limits the end-resultant picture as does the lens on the camera, the shutter speed, the filters, and so on.

Film syntax. The film used also limits what the end result is; color film, black and white, infra red, and so forth, affect the final image. Both camera and film also determine many other factors, such as lighting necessities and subject motion considerations.

Print syntax. The printing method and material used for the end print also alters the final image. The image for instance may be printed on one of many different types of papers each giving its own effect, for example albumen, platinum, carbon, mat, proof, or glossy photographs. It may even be printed on special substances such as glass, leather, rubber, or cloth. Also altering the final image is the use of special techniques for printing, such as the use of filters, special chemicals, or varying developing light which can drastically change the image by highlighting or even removing large sections of it.

It becomes obvious that with a little knowledge of photography the reader can think of and add numerous technical considerations in each of these three syntactical catagories. Crawford importantly notes that changes in any of these categories may result in startlingly different end results in the same pictured scene. The personal considerations of the photographer as to what a photograph should look like is also covered by Crawford.

In summary Crawford's[32] main theory is that it is the available technology that limits what the photographer can do, and in evaluating a photograph you need to know the technology behind the picture. He notes that the earlier you go back in time, the more restricted the photographic version is of a particular subject because the technology was more restricting. The reader is referred to Crawford for further details of his methodology.

Limits of early photography

In looking at the pictures presented in this series of articles, it is important to appreciate and note the photographic processes employed and, in so doing, understand their impact on the photographs.** Photographs, limited by the process employed, present a restricted view or perhaps one version of the truth of events. The photographs are reliable only when viewed in terms of the technologic limits in which they were made.[32]

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* Ivins had used the term "syntax" to explain "the system of organization used in putting lines together to form pictures" . . . pictorial style . . . (could have been used but) "Ivins used syntax because he wanted to establish an association to linguistic structure that makes verbal communication possible and print making structure as he was talking about visual communication.[1]

† In some early photographic process the printing method syntax is of no concern, since printing is not part of the process. In the daguerreotype, ambrotype, and tintype the exposed sensitive plate itself is developed and becomes the final picture; there is no negative from which a print is made. The modern Polaroid and Kodak instant pictures also do not have a print step: they are one-of-a-kind pictures made and developed on the sensitized film and thus are like a daguerreotype and such.

These technologic limits are perhaps the most easy to understand in the early photographic processes, especially in the daguerreotype era (1839–1860). The daguerreotype†† required long exposure time, therefore the subject usually required a headrest clamp or otherwise immobilized himself (hand on chin, like a deep thinker) so that the portrait could be taken. Casual poses are rare in early photography. The wide-eyed stare and rigid position of William Beaumont, M.D., presented in Part I, April, 1979, p. 790, is typical of the early daguerrean portraits.

Early photographic portraiture followed "classic" portrait-painting concepts and presentations. It was not until later, with technologic developments, such as faster exposure time and artificial lighting, that poses, lighting, and presentation varied. It is interesting to note, however, that in each category of photographic processes and/or photographic era, those photographs which are most valued today were those taken by photographers who presented avant garde pictures, stretching the limits of the available syntax and the reigning contemporary concepts of what could or could not be taken.***

The freeing of the photographer from these early considerations occurred in the 1880s with the availability of dry plates, roll film, flash, and, in 1887, by the introduction of the simple Kodak camera. This development allowed for what Daniel Fox and James Terry call "The Aesthetic Free Period (1880–1920) in Photography."[28] Since cameras could now capture most action in most settings, stop-action photographs were really possible.

Since the new technology allowed pictures to be taken in many different settings, photographs of the mid-1880s and onward show much variation. This is reflected, likewise, in medical photographs which document the more casual, relaxed, informal pictures taken (Figs. 14 and 15).

Examination of photographs in the various photographic processes presented in this series will show the changes in portraiture style, as well as the changes in documentary photography style, as shown in various operation views.

One of the limitations of the early photographic process of particular interest to medical photohistorians is the sensitivity of the early process to the blue-violet end of the spectrum. Reds and yellows were not as easily photographed as the blues. The early processes did not give an accurate monochromatic rendering of colors.[33] How this oversensitivity to certain colors affected medicine was, and still is, startling. In the late 1860s photographs of some sick patients showed them with spots all over their skin. Yet the skin eruption seen in the photograph could not be seen when looking at the patient. A few days later, however, the patients came down with classic smallpox. Photography was thus able to diagnose the dread disease before it became visually evident to the color spectrum sensitivity of the human eye. The early processes' oversensitivity to the blue end of the visual light spectrum on the one hand limited what could be seen; on the other hand it extended diagnostics in this particular instance by what could be seen.

Iconographic analysis

Fox and Terry[33] in "Photography and the Self Image of American Physicians, 1880–1920" make a "tentative effort to define a methodology of evaluating medical photographs.[34] The derivation of their method was in part from the work of art, photographic, and social historians. Fox and Terry[28] advocate the use of medical photographs by historians "as a non-written source to help in documenting the changing self image of the physician and the development (in the nineteenth and early twentieth century) of a culture of medicine distinct from normal life." They state they studied thousands of photographs, noting prior historians' difficulties in evaluating them. They note "since perception is culturally determined seeing the past as contemporaries saw it–avoiding historicism and anachronism is often more difficult because of a general lack of training in noting changes in visual heritage."*[28]

Fox and Terry[35] attempt to offer a way of improving our ability to read our visual heritage by a method of "iconographic analysis." This involves studying an image and its history by four analytic components, and recognizing that photographs have both a context and a style, and both must be analyzed. The first of their analytic steps involves treating each individual photograph as a "self sufficient text in visual terms," that is, studying the de-

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** Part I on Photographic Processes (April, 1979).

†† Ambrotype and tintype and wet plate required head clamps also, but each of these offered in turn decreasing exposure times so that wet plates of the 1860s could be taken in a few seconds.

*** An excellent example of this is the daguerrean work of Southworth and Hawes. Their photographs are the most valued and sought after. (Hawes took the famous ether dome photographs). The unusual posed portrait of Southworth, himself, taken waist up and nude is at present the highest-priced photograph ever sold at auction, about $40,000 in May, 1980.

* In Part III of this article on daguerrean clinical photography, July, 1979 (p. 1257) I reviewed the erroneous concepts reported in articles by George Rosen, M.D., Gurtner and Alison Gernsheim. They had claimed that there were no clinical photographs in any of the early photographic processes. I proved them wrong with my presentation of the existence of thousands of such photographs in the daguerrean and ambrotype process alone. Rosen on whom the others based their work made the major error by using modern concepts and standards of what a clinical photograph should look like. He fell into the trap Fox and Terry note regarding historicism and anachronism. They also didn't research the journals and early American archival deposits.

tails, posing, and so forth. The second component involves studying "the actors in the various stages of the life of the image[36] that is the photographer, the subject, the preserver of the image. "The third component . . . considers the image in historical context."[36] that is, what is it documenting, and so on. The fourth component involves comparing one image to another and to groups of images and is basically a check on the results of the first three steps.

One important aspect of this iconographic analysis is that it permits general statements to be made about the significance of whole groups of images after evaluating a number of similar photographs.[37]

Fox and Terry have presented the best previously published work on American medical photographic analysis, as well as an excellent discussion of physician self image. They did make some erroneous statements regarding early photographic processes and physicians who worked with them; these have been clarified in Parts I and II.

Phototaxic analysis

Art, photographic, social, and cultural scholars and historians have presented their own systems for evaluating photographs, none of which, I feel, have been entirely satisfactory. The best of these methodologies are Crawford's photographic syntax and Fox and Terry's iconographic analysis. However these are not complete enough by themselves. I would like therefore to present my own methodology and some of the reasons for its necessity.

To completely analyze photographs, the concept of photographic syntax is insufficient, because it is based too heavily on the technologic aspects of photography. The use of the word syntax also has its own inherent difficulties. Iconographic analysis, Fox and Terry's tentative methodology, also is not complete since it accords insufficient evidence to technologic implications like Crawford's.

I would like to offer for consideration a new term, "phototaxic analysis,"[†] photo from the word, photography, and taxic from the root, tassein, to arrange. Analysis means a method of determining or describing the nature of a thing by resolving it into its

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[†] Or its variant analytic phototax.

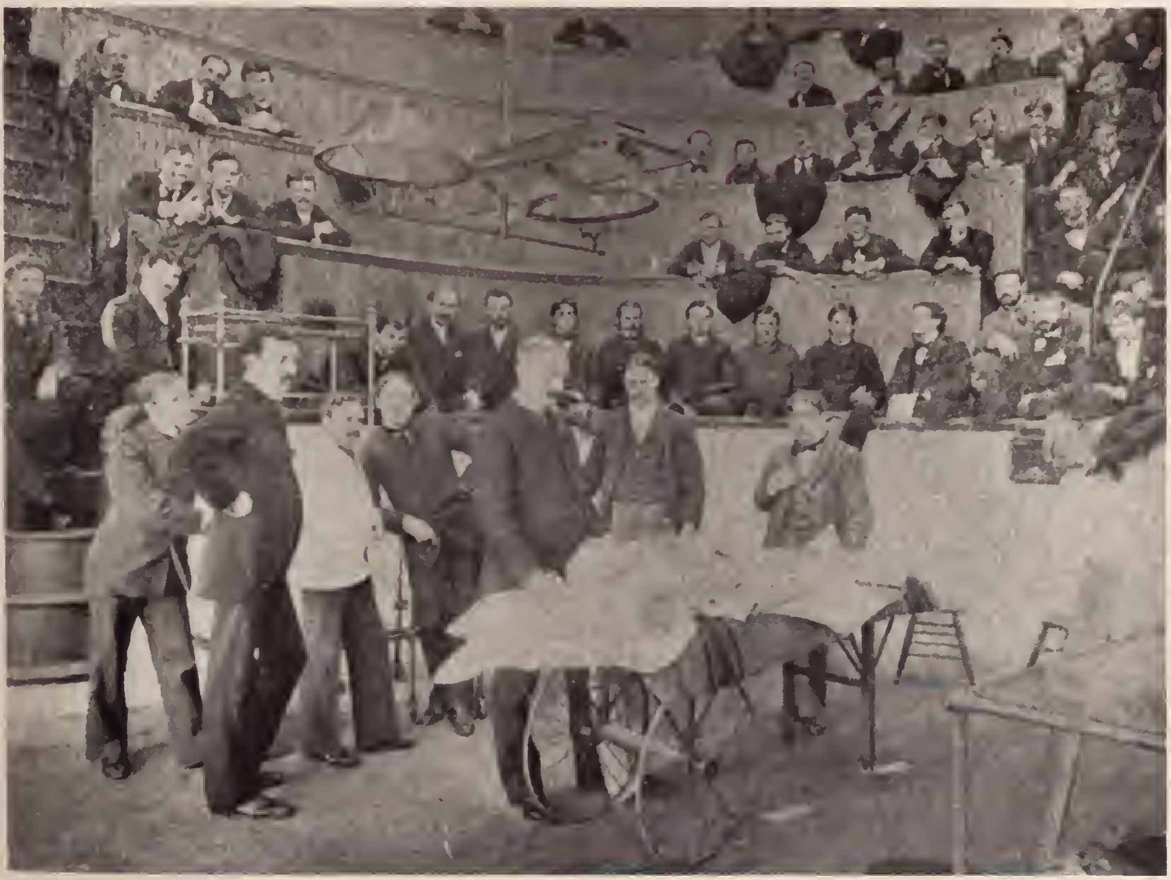

FIGURE 15. "Grand rounds" patient presentation, dry plate, circa 1883. This photograph by O. E. Mason depicts William Thomson, M.D., professor of materia medica at Bellevue Medical College, examining and presenting a patient to the medical class in the amphitheater of the Bellevue Hospital, one of the earliest photographs depicting the modern style of clinical teaching. The hospital amphitheater for surgical operations and case presentations was developed in the 1870s. One clue as to dating of such photographs is the presence or absence of electric lights which were used in hospitals in the early 1880s.

parts. Thus phototaxic analysis would be the description or nature of the parts that go into the arrangement of a photograph and a photograph's arrangement; not only its technologic production but its use, contemporary to its taking and its present use; including its arrangement in collections or as a series of images. This working definition includes a detailed analysis of the technologic considerations of the photographic process and equipment, as well as consideration and serious study of the people involved in the image: the photographer, the subject, and the preservers of the image. Also studied will be the intended usage of the image, and a study of its past and present actual use.

We must also attempt to judge and evaluate photographs by the standards present at the time they were taken. This is possible only if we study the conventions and considerations of that particular era. Most tend to judge images by modern standards and considerations, that is those prevalent at the time of the evaluation, and it is particularly this trap that led earlier medical photohistorians to deny or overlook the existence of clinical photographs taken in the early photographic processes.** If one sets a standard that a wound or lesion should be esthetically draped off and that the patient's face, attire, or surroundings should not show, and if you then have a photograph contravening this standard, then, in the past, it was not considered medical, an obviously erroneous conclusion.

One of the reasons most early medical photographs were discarded was because they were considered by later generations as being too gross since they did not achieve or live up to the esthetic considerations of more modern ages. It is much easier today to look at an isolated closeup picture of a tumor or lesion than it is to contend with the entire person looking at us.

The finished photograph we look at is thus the sum total of available technology and the artistic and personal considerations of the persons involved in its production. Each era and each change of these conditions and considerations made for different styles and types of images.

Rather than write an essay type description of the concepts and methodology I use, I have prepared an outline so that researchers can easily use my process, perhaps even picking out pertinent areas from it to prepare their own special analytic modes.

Medical phototaxic analysis;(reading and studying medical photographs)

I. Evaluate type of photograph
  A. Determine photographic process (and note its limits); if only a copy print available, estimate original process from copy print.
  B. Note limitations of chemical, optical, mechanical, (technologic) properties involved in production of photograph.
    1. Determine camera type and style, lens, and so on.
    2. Determine film type and its limits (what was the original sensitized film or plate?)
    3. Determine print method and final print paper.
    4. Was negative retouched or picture cropped?
    5. How was its final frame? Was it meant to hang on a wall, or be put into a portfolio or album?
  C. Estimate date of photograph
    1. If a copy print, estimate date of copy and estimate date of original.
    2. Some specific dating hints:
      a. Type of print and process (Part I, April, 1979, and this section for medical photographs).
      b. Overall style and posing of photo may be identification of a specific era.
      c. Clothes of subjects–ties, jackets, and so on.
      d. Calendars on wall, or dates in photo.
      e. U.S. flags—displayed (in 1912 48th state added).
      f. Special instruments or objects.
      g. Halation–light glare from windows, not present after 1895.
II. Evaluate substance of image[35–37]
  A. Study subject matter, details, and content of photograph
    1. Is it rare to see photograph of a particular subject or detail at a particular time?
    2. Is image like numerous other pictures in its general choice of subject and details to depict?
    3. Any unusual details?
    4. Are the presence of certain details common, uncommon, intentional, or unintentional?
    5. What is seemingly included or excluded in picture?
    6. Do physicians, nurses, other hospital personnel, or lay observers appear in image or operative scene, and in what positions?
    7. Do instruments, cabinets, or personnel appear in photograph by accident or design?
    8. Do hospital personnel purposely appear in hospital ward scene?
    9. How conscious are people in the picture that picture is being taken?
  B. Study image esthetically
    1. Is image an effort at art or is its purpose technical, scientific, or personal?
    2. Was image composed or candid, preimagined or accidental?
    3. From what vantage point is picture taken?
    4. What is esthetic value of image?
III. Evaluate people involved with images starting with its production[35–37]
  A. Study photographer
    1. Is he known? What for?
    2. Is he a professional or an amateur?

** Part III, August, 1979.

    3. Does he routinely take medical photographs?
    4. Was he hired to take the view?
    5. What was his intention in making images, his style, his biases?
    6. How much time did photographer have to prepare or pose his subjects?
    7. What audience did photographer (or subject) have in mind: medical, lay groups, personal (self or family use) publication, advertisement, historical, document, and so forth?
  B. Study subject (personages) of image
    1. Who were the major personages?—identify each if possible.
    2. How were they portrayed?
    3. Did the subject have this picture taken?
    4. Can you determine why he had picture taken?
  C. Study why and who saved the images (determine provenance)
    1. Who saved image, originally and until the present? Why did he save it? Determine the provenance of image.
    2. Why was particular image saved?
    3. Why was particular collection of images selected and preserved?
    4. Is there any written evidence or documents that identify or note why image was preserved?

IV. Evaluate image from historic perspective; study historic context of image (Fig. 16)
  A. Why was picture taken? Was it to document:
    1. A personal event?
    2. To show interesting case?
    3. A new technologic tool?
    4. A medical first?
    5. For publication—perhaps in a year book or for a medical journal, for an advertisement?
    6. An historic event?
  B. Is there any written evidence to document why image was taken?
  C. If published, obtain copy of publication to study.

V. Evaluate in general place of image or images in total spectrum of medical photography
  A. Study and compare similar images from the same era with each other.
  B. Study and compare similar images from different eras to each other.
    1. Determine what is common and unusual in an era or type of photograph.
    2. Is pose common?
    3. Is subject matter common?
    4. How does it rate as an example of particular type of photograph, medically and esthetically?

VI. Study subject image projection; study possible hidden messages and intended messages
  A. Evaluate physician's image.
  B. Evaluate patient image.
  C. Evaluate ancillary personal image.
  D. Evaluate general state of the art of medicine projected.
  E. What general concept of feeling is projected by image?

Self image

An understanding of the changing self image of the physician and also of the patient image becomes evident in studying medical photographs from different eras. By the early twentieth century the projected self image of the physician and the public image of the physician came together as one of competent surgeon and healer. Photography was one of the modes which helped this image fusion.[38]

In early physician photographs (1840–1860) the physician is portrayed as a "learned man" with books, skull, and bones in the style of portrait painting. By the 1870s and 1880s physician portraiture is different. He is photographed with the tools created by the latest technologic advances and is portrayed competently using them. For the first time pictures can be found with the physician examining a patient with these new tools (Fig. 9 Part I, April, 1979).

In the midnineteenth century most surgery was, as it had always been, a public event. Physicians operated in their street clothes or perhaps donned a favorite jacket on which some wiped their bloody contaminated knives rather than wash them as they went from case to case. In examining photographs of operations in this era (1840–1870) one cannot easily differentiate between physicians and observers, who often milled about the table to get a good view (Part VI, Aug., 1980, front cover). Surgery was often performed at home or anywhere the patient was found. Even as late as 1870 in some hospitals surgery was performed in the patient's bed rather than in an operating room. All this was to change with the development of antiseptic techniques, asepsis, and the discovery of the germ theory of disease. As complex surgical procedures developed in the 1880s and "the abdomen became the playground of the surgeon," the image of the greater levels of competency were projected by photography.

By 1900 the physician is photographed most commonly in an operating room, set apart from and dressed differently from his observing audience, now in an amphitheater gallery, and his audience consists only of physicians. The physician-surgeon wears a white gown and hat, is the center of attention, and is the technologic master of all he surveys (Fig. 17). Surgery had now for the first time become a private matter, and not until the 1960s was surgery again viewed by the public.

Interestingly I have not yet found in any medical, scientific, or other publications discussing medical image projection, a presentation of the image projection of that usual second subject in medical photographs, the patient. Numerous articles, however, have been written about how to photograph, or esthetically portray, patients. The merits of what should and should not be shown also seems to be an ever-constant discussion.* Since no analysis has been attempted as regards image projection of this "second body" in medical photographs, nor has a discussion of the nature of the message that perhaps

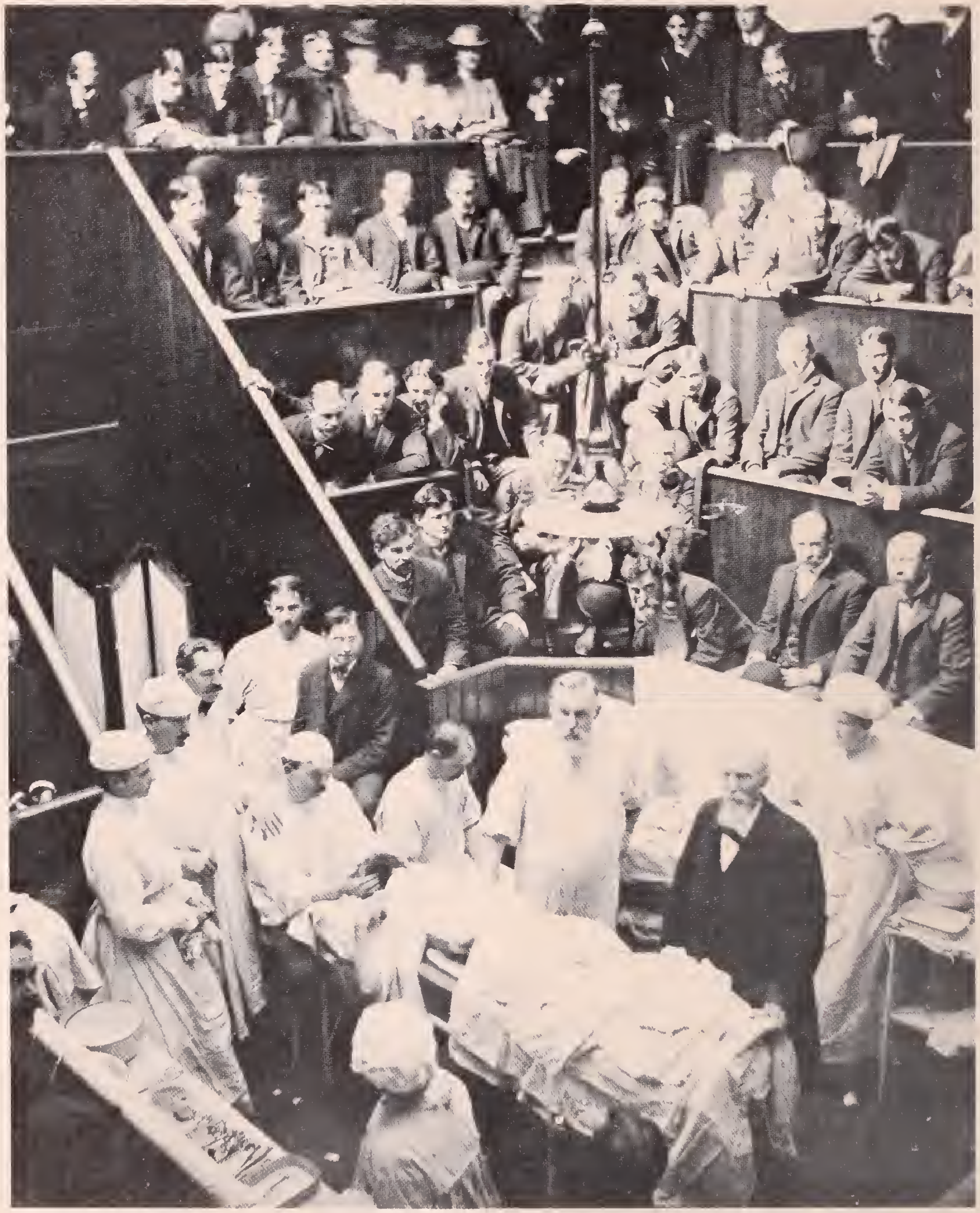

FIGURE 16. Visually documenting the change in physician competence and medical-surgical practice is this typical surgical photograph of the 1900 era. Taken October 3, 1901, by Vaughan and Keith in San Francisco's Lane Hospital amphitheater, it documents an historic event. We see here in the center (without a surgical hat) the visiting Heidelberg surgeon Vincenz Czerny, M.D., after performing a gastroenterostomy before the faculty and students of Cooper Medical College. Levi Cooper Lane, M.D., (1830–1902), the founder of the Cooper Medical School (1882) and Lane Hospital (1890), is pictured at his right, having entered the operating room clothed for the photograph. Hats and gowns were standard in the operating room in this era. Gloves although perfected and used in the late 1890s were not routinely used until about 1905. One of Germany's great surgeons, Czerny was the first to perform posterior gastroenterostomy for duodenal ulcer. Cooper Medical College and Lane Hospital evolved into the Stanford University Medical School (carbon print, $7\frac{1}{2}'' \times 9\frac{1}{4}''$).

is getting across, I shall present some preliminary concepts on the message of "image that the second body" (the patient) may project.

In the earliest photographs this second body is usually represented not by a living being but by skeletal parts. Next come photographs of a cadaver dissection. By the 1880s the second body is not a skull, and so on, or a cadaver but a living interested party. The patient is now alive and pictured with a physician who is eagerly examining him with the tools of the new technology. In this era we thus have photographic evidence of patient interest and participation in the new levels of medical competence and technology offered. By 1900 the patients when photographed with physicians are usually depicted on the operating table, helpless, anesthetized, and giving up all power to the master of the new technology, the surgeon (Fig. 17).

Medical photographs may thus illustrate not only the changing self image of the physician but also the changing public image of physicians; also, perhaps, the changing personal image an individual may feel as a patient. This patient self image changed from perhaps a fear of winding up as the skeleton or cadaver the physician was examining (which was pretty much the case, especially in surgery of the 1840s), to total and complete confidence in the physician while lying helpless on an operating table in the 1900s.

The study and analysis of medical photographs, as well as their roles in documenting physician and patient image projection, is in its infancy; new interpretations and discoveries will surely be made. I hope other researchers will further comment on and study this interesting aspect of medical photography.

Isolated clinical photography follows clinical medicine

One of the greatest advances of medicine during the nineteenth century was that individual diseases could be focused on. With the advent of laboratory pathology, bacteriology, the germ theory of disease, and pharmacology, the identification, etiology, and treatment of a specific disease was possible. One of the best examples of disease identification is syphilis which can mimic almost every other known disease, from cancer to mental illness. By the end of the nineteenth century, myriads of diseases were recognized as just variants of this one disease, syphilis.

In surgery with the advent of anesthesia, asepsis, and antisepsis, longer more delicate internal operations were possible, specific parts could be isolated and operated on: appendectomy, gastroenterostomy, and other such operations were developed. Medicine began to focus on diseases one by one, and the age-old fevers, miasmas, and so on, began to be replaced by specific disease entities.

So too in photography as the disease became more isolated and more important (seemingly) than the patient, the photograph began to depict less of the patient and more of the diseased part, until, by the early part of this century, the clinical photograph was taken with careful draping so that you could not identify the sufferer. The diseased part was photographed from various aspects, varied lighting, and with different processes, all to gain further infor-

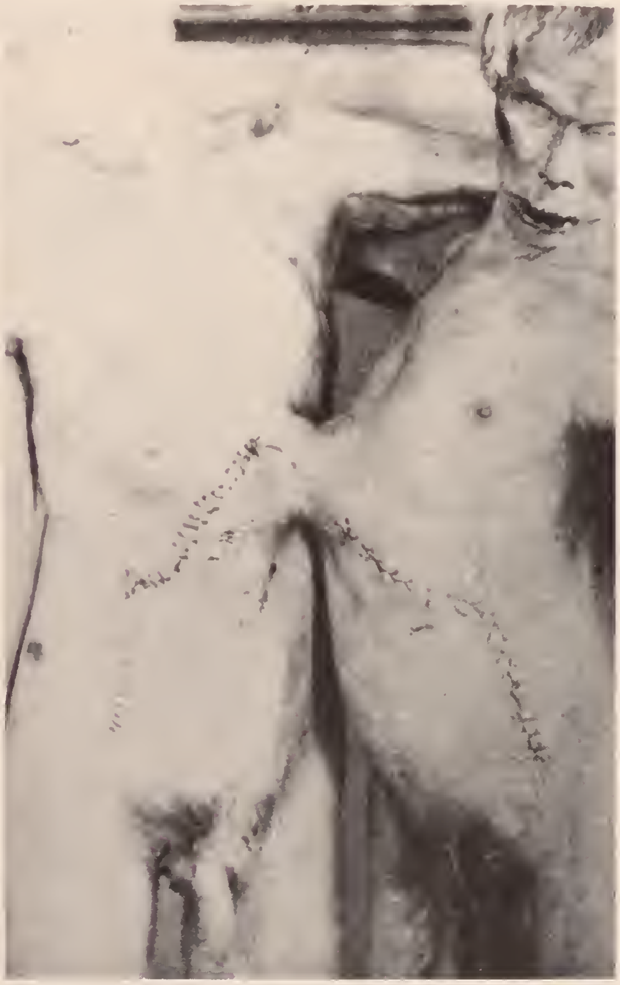

FIGURE 17. Postmortem, autopsy picture of Cheng and Eng, "The Siamese Twins." Among the most famous of nineteenth century personalities were these medical curiosities. Their life story and exploits have been the subject of numerous authors' works. This rare (unpublished) photograph is presented as an example of the saving of medical photographs. The photograph survived because its subject was famous, and the postmortem view of the "sewn up" (post-autopsy) bodies of the brothers is unusual. Several cartes de visite and 24 stereoviews were taken of the twins after their autopsy. They had died in the Carolinas and were taken to Philadelphia for the special medical study (1874).

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* In 1977 the New York State Legislature passed a law forbidding the publication in a medical journal of photographs of children. Kodak's 1972 book on *Clinical Photography* can't be published today because of this law: it contains numerous pictures of children.

mation about what was going on.[†]

We have in this concept of identification and isolation of diseases and specific treatment of these diseases the eventual evolution of the concept of medical specialization.

Much has been written, especially in lay publications, on the topic of "modern medical specializations" and overspecialization: that we wind up treating parts of the person and not the whole. The new concepts of holistic medicine and other such concerns have become increasingly popular to bring us back into a more humanistic practice of medicine. Just as we have isolated disease and its treatment, so too has the clinical photograph become isolated; perhaps we again should take photographs of a patient and his tumor rather than the isolated lesion to aid in this rehumanization and personalization of medical practice.[†]

Books illustrating medical practice

Many pictorial style books illustrating medical history have been written, each of them containing some photographs. Among the more informative of the presently available books are Bettman's *A Pictorial History of Medicine*, Lyons and Petrucelli's *Medicine, an Illustrated History*, and Karolevitz's *Doctors of the Old West . . .*

The latest addition to the available books (1980) is Novotny and Smith's *Images of Healing . . .*** This book is different from the others in that it is being sold in the photography section of book stores and is also the only one of these books in which the editors attempt to distinguish between types of photographic processes. Unfortunately, however, they have only two categories: "daguerreotype" and "photograph." And they have erroneously labeled as daguerreotypes photographs from all the early processes, from daguerreotype through wet plate. All but one of their Civil War outdoor wet-plate albumen prints are likewise labeled daguerreotypes. Even scenes in the 1870s are also so labeled. Such a gross error in a pictorial-photographic book published today, with all the reference material available, is astounding.[††]

Although claiming in the introduction by William Sharpe, M.D., that one of the book's purposes is to "open some archives and explore some attics," most of the nineteenth century photographs shown are either the familiar and routine straightforward formal portraits, or if not a portrait, one of the more popularly published photographs from the various institutions researched. Additionally, and even more importantly, these nineteenth century photographs are, for the most part, not representative of American medical practice but rather of the type of photograph that was saved by the institute for public consumption.* (For as conventions changed, different images lost importance and were, therefore, unfortunately weeded out of the institutes' archival deposits.)

It was also the hope of the editors "to place . . . (the various aspects of medicine) in their social context." As regards nineteenth century medical photography, this point was mainly missed. For example, two of the more obvious types of nineteenth century posturing reflecting social projection are not illustrated. One type is that in photographing (or illustrating) similar lesions in patients, the higher the social status of the patient, the more the body was draped. This is easily seen in Civil War images, as exemplified by the fact that officers usually wore their jackets and showed their rank while enlisted men were usually photographed with close to nothing on (Part VI, August, 1980, Fig. 16B, p. 1461 picture of General N. A. Barnum, and Fig. 12G, p. 1457, Pvt. F. Siebe, both with abdominal wounds). In general, the privacy of the poor was invaded photographically in the nineteenth and early twentieth century.

Another social projection found in medical photographs is that in showing patients' improvement through treatment, in photographs intended for public view (such as hospital annual reports or appeal for funds, or other publications) the patients' style of clothing improved in each photograph as their diseases improved.

There is yet another omission in this book. Although entitled *Images of Healing*, not one clinical photograph or even illustration is produced.[†] There are no pictures showing the results of treatment; the only photographs of medical patients are those showing them on the operating table, patients with bandages, or patients in bed.

In conclusion, this book probably falls short because, to quote Fox and Terry, "Most historians are not trained to be . . . sensitive to changes to our visual heritage," and also because of what can unfortunately be termed superficial research. These same institutions from which the photographs were taken for this book have other photographs which would have served the editors purported purpose** of opening archives and exploring attics.

[†] Personal privacy aspects are, of course, important and have been in the forefront of clinical photograph portrayed considerations. Perhaps one of the subtle unintentional side-effects of this, though, has been the patient's being "reduced or equated to his photographed lesion."

** Novotny, A., and Smith, C., Eds.: *Images of Healing:* (A portfolio of American Medical and Pharmaceutical Practice in the 18th, 19th, and early 20th centuries), Introduction by Wm. D. Sharpe, M.D., New York, Macmillan Publishing Co., Inc. 1980, 144 pp.

[††] The book does have a few daguerreotypes but only those knowledgeable in the field can find them.

* Most of the other illustrations are engravings or photographs of physicians and pharmacists' equipment and advertisements, hospitals, nurses, and so on.

[†] Clinical photographs are, however, found in numerous nonmedical photographic volumes, such as Bernards' *Photodiscovery . . .* and Bucklands' *First Photographs*.

Summary

I have presented in seven installments the major portions of my research in early American medical photography. Over 125 original photographs and other illustrations have been reproduced. Many of the photographs were previously unpublished. Additionally, of those previously published over 90 percent had been published more than 100 years ago. The study of these photographs has allowed us to gain a better understanding of the use of photography by physicians and also greater insight into what medical practitioners, their patients, and perhaps their practice was like.

Numerous significant discoveries were presented. Among the most important, it was found that clinical photographs were first taken not by European physicians but by American physicians and that they used the earliest photographic process, the daguerreotype. Also thousands of such images were taken, many were used for publications, and many are still preserved.

In addition, it was in this *Journal* that photographs of early ether operations were published along with reproduction for the first time of some of Henry J. Bigelow, M.D.'s, clinical daguerreotypes. They appeared almost a year before Massachussetts General Hospital announced their own similar discoveries by a national press wire service. Newspapers country-wide then heralded their photographs as an important photographic find in the history of American medicine.[††]

Besides documenting new discoveries, several treatises and studies were included for the purposes of aiding other researchers: (1) a translation from the German of the oftquoted 1855 report on medical photography by Herman Wolff Berend, M.D.; (2) a listing of 1840–1850 medical journals containing illustrations from photographs; (3) a listing of daguerreotypes in the Warren Anatomical Museum; (4) a discussion showing that American psychiatrists were the first to use photography for treatment purposes; (5) a classification and analysis of Civil War medical photography; (6) a listing of all presently known early medical books with photographs; (7) a presentation of a methodology of analyzing photographs; and (8) a discussion of the physicians who were involved in the development and advances of early photographic processes.

It is hoped that future researchers will be stimulated into studying this most interesting area of medical and photographic history and that our medical photographic heritage will continue to be preserved not only by individuals but also by major archival institutions.***

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Many archivists, librarians, and historians provided help in researching photographs, books, and papers in their institutes' collections and made available their collections. Special thanks for the extraordinary support, time, and help of: Lucinda Keister: Director, Prints and Photograph Division, National Library of Medicine, Bethesda, Maryland; Edward R. White, M.D., J. D., Associate Director for the Medical Museum, Armed Forces Institute of Pathology, Washington D.C.; Ann Elizabeth Zibrat: Archivist-Registrar of the Otis Historical Archives, Armed Forces Institute of Pathology, Washington, D.C.; Alice D. Weaver, Head Librarian, Malloch Rare Book and History Room, New York Academy of Medicine; David Gunner, Curator: Warren Anatomical Museum, Harvard University Medical School; George Layne, M.D., Photohistorian and psychiatrist associated with the Kirkbride Archives Collection, Historic Library, Pennsylvania Hospital, Philadelphia; Richard Yanul, Photohistorian and Researcher specializing in early photographic books, Washington, D.C.; and Ferenc Gyorgyey, Historical Librarian, Medical Historical Library, Yale University Medical School.

Many antiquarian book dealers assisted in my locating rare photographic medical volumes for my study and collection. Special thanks go to: Anne and Barry Wiedenkeller of the Printers Devil, Arlington, Massachussetts, Louis Cohen of Argosy Book Store, New York, and to Richard Foster of Rittenhouse Book Store, Philadelphia.

Numerous antique photographic dealers nationwide have helped me locate many rare images; among the most enthusiastic have been in particular, Joseph Buberger, Hilde and Leon Jacobson, as well as Marge Neikrug, Ken Appolo, David Belcher, David Wheeler, Judith Mayer, Keith DeLellis, Joel Kopp, and Harvey Zucker.

Special thanks to my two assistants, my children, who spent numerous hours in libraries with me pulling books, xeroxing, and collating the papers, Jason and Elizabeth Burns.

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[**] Such an example would have been their publication of the daguerreotype of William Beaumont, M.D. (1785–1853) famed pioneer, physiologist (appearing in Part I, April, 1979, Figure 1, p. 790), rather than the oft-used engraving of him they chose. This image resides at the New York Academy of Medicine where the author of the book's introduction is not only a fellow but editor of the *Bulletin of the New York Academy of Medicine*.

[††] *Life Magazine* (Sept. 1980), "Picture Find for the Annals of Medicine" page 9, published some of Dr. Bigelow's clinical photos, as well as three early ether operation views. The "view of the woman on an operating table" additionally appeared in hundreds of newspapers nationwide, noting it as an important discovery. Yet in July of 1979, almost one year earlier a reproduction of this same picture appeared on the front cover of this *Journal*. The existence of two of these daguerreotypes taken at Massachussetts General Hospital were established independently by my research at the Library of Congress and the New York Academy of Medicine.

[***] This series will be available as a monograph in the fall of 1981 from Stanley B. Burns, M.D., 30 East 60th Street, New York, N.Y. 10022.

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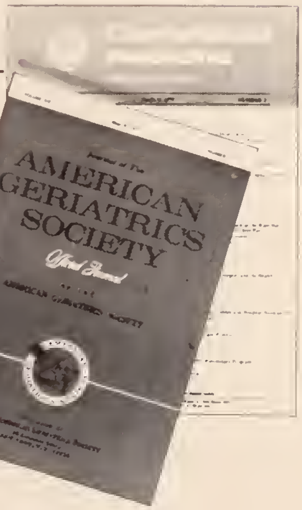
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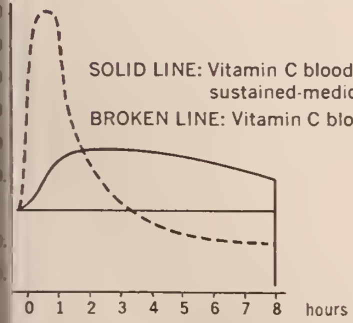

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DEVELOPERS AND SUPPLIERS OF GER-O-FOAM • GAYSAL • B-C-BID

Special Article

Dr. Frankenstein, I Presume?

Who's to kill, or should we kill the monster we have created?

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TABLE I. Health-related expenditures in the United States in 1980

Expenditure	Expense (in billions of dollars)
Hospital care	$97.3
Physicians' services	45
Dental and other professional services	23.6
Nursing home care	21.6
Drugs and sundries	18.1
Insurance administrative costs	11.6
Research construction	10.5
Public health activities	7
Other health services	5.2
Eyeglasses	4.7
TOTAL	$244.6

TABLE II. Who pays the health-care bills?

Compensator	Bills (in billions of dollars)
Individuals	$68.4
Private insurance companies	75.7
Federal spending	70.4
State and local spending	30.1
TOTAL	$244.6

Health-related expenditures in the United States have represented an increasing share of the national output since World War II, driven primarily by advancing frontiers of knowledge and the exploding demand that is generated by expansion of third-party payment mechanisms and governmental tax incentives. In this respect, the health industry is our second most costly expenditure, second only to government itself. New government projections show that the per-capita cost of medical care, estimated at $1,078 this year, will triple to $3,057 by 1990. From 4.5 percent of the nation's total output of goods and services in 1950, medical costs have grown to 9.5 percent today, and could reach 11.5 percent by 1990. Medical costs account for an increasingly large share of the economy—almost $1 of every $10 spent today, compared with $1 of every $20 in 1960. Recent statistics published in *U.S. News and World Report* outline the 1980 medical bill in Tables I and II.[1]

These statistics form the basis for the "crisis in health care," about which we read daily and the blame for which seems to be put on the medical profession. Recall for a moment that physicians, by their decisions, determine the modus operandi of the health-care system. Although only $0.18 of the health-care dollar is spent for the direct services physicians provide, the balance of that dollar ($0.82) is spent on physician-ordered services, such as laboratory tests, diagnostic procedures, therapy, and so forth. Remember, too, that we physicians are not only the judges of who goes to what hospital and how long our patients stay, but, more important, we have the absolute control over what procedures will be performed during that stay. These decisions are tempered, of course, by the patient's ailment, the state of medical knowledge, standards of professional care, and the wishes of the family.

Every well-informed moviegoer will recall that Dr. Frankenstein, despite well-meaning intentions, created a monster. Depending on the vintage of the film, "right" ultimately triumphed and the monster perished in either a fire or explosion, or was slain. This popular tale has its analogy today as we struggle with the increasing cost of medical care and attempt to control the monster we call "technology." I would like to enumerate some of this "monster's" characteristics:

Treatment costs

Laboratory tests. Laboratory tests account for 8 percent of the total cost of health care, or for about 15 percent of the average hospital bill. Approximately $14 billion was spent on laboratory diagnostic tests in this country in 1978, and the volume of tests performed is growing at a rate of 15 percent a year.[2] In the chemistry area, for example, a dual channel analyzer automating only glucoses and nonprotein nitrogen in 1950 has mushroomed to multichannel analyzers providing over 30 chemical values on 0.5 cc.

Presented at the Syracuse chapter of the Financial Executives Institute, Syracuse, New York, University Club, September 16, 1980.

of serum. Laboratory staff seize on these instruments, since they give an accuracy heretofore not available and because they are capable of accepting the mushrooming workload (our multichannel chemistry analyzer performs 3,000 tests per hour or 24,000 tests per day). Instruments for chemistry and differential blood counts are in place in most hospitals above the 300-bed size, and the average price tag on these instruments is in the $100,000 range. A shift in laboratory usage has occurred over the past few years in that approximately one half the current workload is concerned with monitoring the therapy of disease and establishing yardsticks to follow its progress. A new role for laboratory tests in predicting the response of the patient to certain forms of treatment is just emerging and it is likely to assume greater importance in the future. If one includes both diagnostic and monitoring testing, it is estimated that the laboratory performs about 42 chemical tests per admission for the 50 most common diagnoses. Sometimes hospital protocol is responsible for what may be unnecessary test ordering, and there is no doubt that certain tests are ordered for "educational" value (in one study 11 percent of all tests ordered by residents fell in this category). Finally, I have observed what I term "trinity" ordering practices, that is, tests ordered in three's; a prime example of this occurs when three complete blood counts on the same patient are ordered before the results of the first one have been charted!

Radiologic diagnostic tests. Among radiologic diagnostic tests, radioisotope scanning, ultrasonography, and CAT (computerized axial tomography) have burgeoned within the past few years. In 1978, $8 billion, or about 5 percent of the total national cost for health services, was spent for diagnostic radiologic procedures. Diagnostic radiology accounts for 8 percent of the average hospital bill; CAT scanning alone accounted for $600 million of the $8 billion total and is increasing rapidly.

Coronary arteriography. Professional and hospital charges for coronary arteriography now average about $1,500 a procedure. This study is becoming routine at 8 to 10 weeks postmyocardial infarction for evaluation of candidates for coronary bypass procedures. We estimated 300,000 procedures in 1980, adding $400 million to our health-care bill from this diagnostic method alone.

Coronary bypass surgery. About 100,000 coronary bypass operations will be performed in 1980 at a total cost of $500 million. And the procedure continues to grow! Professional and hospital charges for this operation average about $12,000. There appears to be a general concensus among the experts in medical cardiology and cardiovascular surgery for at least three indications for this surgical procedure:

1. Disabling angina pectoris unresponsive to medical management.
2. Critical stenosis of the left main coronary artery.
3. Triple vessel disease with moderate impairment of ventricular function.

Other suggested indications lacking agreement between conservative and nonconservative cardiologists and surgeons are under study, and await controlled trials to establish whether or not they improve morbidity and mortality rates.

Chronic dialysis. At the present time, there are about 40,000 patients under chronic dialysis treatment, at an estimated total cost of more than $1 billion per year. Anyone in the United States, regardless of age or health status, is entitled to government-paid hemodialysis for life. Although the number of people currently under treatment represents 0.03 of the population of the country, this number will grow exponentially as more survive; the total expenditure is estimated at $2 billion in 1984.[3]

The question should not surface as to why we physicians continually employ these expensive diagnostic and therapeutic services. There are several reasons[2]:

1. As physicians, we want and, indeed, need to know all about our patients if we want to be able to remedy any possible situation in which patient benefit is possible. And, this philosophy is certainly shared by our patients. The problem arises when we begin to realize that such unfettered demands require great expenditures of resources.
2. Technology has a powerful grip on the medical mind. The physician has been led from the stethoscope, the chest x-ray film, the electrocardiogram, and the urinalysis to a whole new armamentarium of diagnostic methods. In an attempt to eliminate subjectivity, physicians now distrust themselves, and have turned many decisions over to the machines. Scanning, for example, has replaced a careful physical examination for enlargement of the liver and spleen.
3. In reviewing our PSRO (Professional Standards Review Organization) monitoring reports from various hospitals I am impressed with these frequent criticisms. "Why didn't he order a calcitonin, a gastrin, an antimitochondrial antibody, etc." It would seem that sins of omission surface more frequently than do sins of commission. Hospital house staffs have endured this problem for years as they attempted to avoid flagellation by their attendings. In one teaching center, residents admitted that this type of "defensive" ordering was responsible for 9 percent of all laboratory tests requested and for 14 percent of all x-ray tests ordered. Further expansion is inherent on peer review!
4. In respect to malpractice, there can be no denying that physicians "over-order" tests today because of the litigation-oriented climate. We physicians squirm in a court of law when the plaintiff's attorney armed with the retrospectoscope asks, "Why, doctor, didn't you request a bone-marrow examination when you noted the abnormal peripheral smear?"
5. Financial inhibitions have been all but eliminated. Today, health insurance converts patients from consumers to beneficiaries and physicians from suppliers to trustees. Our patients want medical care virtually without concern for price. This can be traced back to former President Johnson's great society's phi-

losophy that more is best and cost is of no concern!

Comment

Having described the "monster" and why he continues to grow as well as survive, the obvious question, now, is how do we control him? Should we resort to rationing, and who will make these life and death decisions? With rationing, physicians would no longer have the sole responsibility, and the ethical and legal aspects of this are frightening to ponder. Great Britian faced this problem by holding health-care spending to 6 percent of the gross national product—and it is said that our English colleagues are the best "hands on" physicians in the world, because they have had to make do with little technology. The British health service in 1978 provided only enough dialysis machines to serve approximately half of those under 60, newly discovered, who need dialysis. Americans, believing as they do that medical care is a right, and that all medical knowledge and technology must be available to everyone, could never accept the queuing up, the reduction in capital investment in the health sector, the denial of certain services for people over 60, and so forth, that characterize the British system.[4]

Rather than ration our technologies we must make efforts to use them wisely, beginning with an indoctrination at the medical-student and house-staff levels.[5] Insurers should design reimbursement plans to encourage restrained and selective uses of technology—such proposals could well effect a change in both physician and hospital reimbursement. Control mechanisms are in place today to study the use of the ancillary services in our hospitals—these are represented by our hospital medical audit committees and by the medical care evaluation reviews. The latter are part of a peer review mechanism under the aegis of the PSRO and represent retrospective reviews of a hospital experience in medical-management problems. The PSRO is already making inroads in the establishment of criteria for coronary angiography and coronary bypass surgery in our 11-county area.

Many maintain that only a change in the economic organization of medical care can control this unbridled technology. The prepayment principle is certainly such an option, compelling physicians to provide comprehensive health-care services to well-defined populations, largely for a prospective per-capita payment of some other form of remuneration that rewards economy in the use of resources. Marching to this tune we have such organized health plans as the Kaiser-Permanente Medical Care Program, the Harvard Community Health Plan, Medical Care Foundations, Health Maintance Organizations, and Individual Practice Associations. These are all variations of the same theme with their own peculiar advantages and limitations, but at this writing they have failed to generate great physician and beneficiary enthusiasm despite some evidence that they may be cost effective.

This health-care challenge, like our energy and inflation problems, is an issue to which we must respond today—it will be too late in 1990!

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Latter-Day Psychiatry For the Common Man

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The problem

The current plight of patients with chronic major mental illness is a thread-bare theme.[1]

During recent years, however, these pitiful persons have become unpleasantly visible, wandering the streets even in the small cities. Some are obviously hallucinating and delusional, many are ill-clad and ill-fed, and others are unable to take their medication or even fend off predators. A number have died of neglect, or worse. New York City offers an extreme case with 6,000 more "placed" there from the State hospitals last year. "Bag ladies" are a common sight. The City of New York Police Department handled 21,000 EDP (emotionally disturbed person) calls in 1980, attributed by Chief of Operations Patrick Murphy partly to the release of thousands of mental patients. *The New York Times* further reports that fire-extinguisher spraying will be used to "disorient" a disturbed, deranged person while a 10- by 14-foot net is cast over him.[2] Oneida County has been declared an "impacted area" as a result of sweeping "deinstitutionalization" from its three state institutions. An estimated 3,000 psychiatric and mentally retarded patients are existing there, largely untended and unaccounted for. Transfers from institutions to large proprietary homes and the like—so-called "mini-institutions"—cannot be considered community-care facilities. It does not take a psychiatrist to determine that many EDPs are not ready for community life because of intellectual and emotional symptoms of mental disability. But it is cruel to force them out, unable to cope, however closely they are "baby-sat." [3] It is very poor medical practice.

The other side of this very bad coin is the over-strict policy of limiting admissions to state psychiatric and developmental centers. As a result, many patients in need of hospital care have been refused admission. This, it appears, is to continue. Sarah Connell, New York City regional director of the State of New York Office of Mental Health, confirmed the stringent policy (and wiped out the field of geriatric psychiatry in the same breath):

> We do not admit elderly people with organic brain syndrome; we don't admit people who are maybe a little strange . . . .[4]

Deliberately distorted, such guidelines permit exclusion, just as misinterpretation of "least restrictive environment" [5] and "not dangerous to self or others" can be used to facilitate discharge of half-treated patients.

Physicians are concerned in this matter, which involves many of their patients—elderly or young, brain damaged or not, a little bit "strange," or very "strange." Psychiatrists have testified before legislative committees, appeared at forums, and have written to the press and for journals. To date, righteous indignation larded with facts has accomplished little beyond repetitious, bland assurances of future remedies.

At issue is the recently enacted Mental Health Systems Act signed with great éclat by former President Carter.[6] Completely missing the central point, it fails to deal with the continuing inappropriate release of partially treated patients. It also ignores the sore problem of restricted hospital admissions and confinements—both in the face of thousands already wandering the streets, for whom so little can be done there, and of the scores of new patients surfacing each day, doomed to chronicity, in our present state of knowledge. Almost as bad, is that to many people this act seems to offer a solution, and thus will stifle appropriate action.

Causes

The etiologic pattern of this medicosocial disorder is made up of a series of factors. Not the least of these is the device of denial, a common mechanism in neurotic and psychotic motivation. Following the lead of a British psychiatrist, an American psychiatrist has written endlessly regarding the denial of the existence of mental illness. To the contrary, the latter psychiatrist is on court record conceding that he would have another psychiatrist certify, for state hospital admission, any of his patients who became dangerously mentally ill. Among the uninformed, that "Pollyanna" view became popular, and was reinforced by the upsurge of civil libertarians. This group urged that at all costs the patient's "rights" should be preserved, whether or not he was able to make an informed decision respecting either his need for treatment, or the nature of that treatment. This is equivalent to requiring a six-year-old child to decide whether or not he wants to be hospitalized for overdue orthopedic surgery. The pendulum did swing too far in attempting to correct abuses that did exist in many quarters. However, in this push, sight of the prime right was lost—the right of the patient to adequate and humane treatment.[7] Laws were diluted so that voluntary admission was the rule, whatever the facts. As a result, the hospital had no right to retain a psychotic patient against his will, nor to return him promptly to the hospital when he was in trouble in the community. However, some "experts" now demand that the hospital resume responsibility in the latter instance. Under earlier law, the hospital did have the authority and responsibility to supervise the patient on "convalescent status" in the community, and to return him were it medically indicated.

Earlier, former President Kennedy had fostered legislation to end state-hospital "warehousing" of patients;[8] community care was to be substituted.[9] This never has gotten off the ground, although some have advocated total care there.[10] New York State had pioneered, in 1954, as the first state to pass a community-care, mental-health act. However, the large body of persons with major mental illnesses—chronic schizophrenia, some mood disorders, and severe organic brain syndrome—precludes total community care.

New York State officially adopted the use of psychotropic drugs in October, 1954, after studies performed at Rockland and Creedmoor State Hospitals. These tranquilizing and antidepressant drugs, which gradually came into general use, quickly blot out blatant symptoms; they do not cure the illness, but, instead, allow cooperation in treatment with the physician. Unfortunately, this process was later employed to accelerate "dumping:" patients are "stabilized" briefly with the requisite drug, released, without adequate treatment, and sent right back into the situation from which their illness stemmed. This maneuver is called the "revolving-door syndrome" because of rapid recurrences of illness, and readmissions.

"Fiscal" psychiatry has also played a major role in the central problem, according to the comptroller of the City of New York.[11] Imported from California, the concept of saving State dollars by discharging patients to a life style of surviving on federal SSI (Supplemental Security Income) allowances was adopted in New York State in the late 1960s; it was ushered in with the most pious declarations of good intent. Here, it was said, is the means to treat the patient in the community. However, it has proved to be a means for wholesale dumping, because eligibility for SSI depends on hospital discharge; this was intended to implement the federal zeal for community treatment. Running down the State hospital (in both senses) would make a better case for community care, for which more State dollars would also be made available. The Mental Health Information Service was incorporated into the scheme, also. It had been developed as an arm of the court to provide information prior to hospital certification, and to act as ombudsman for the institutionalized. Instead, it became an instrument for promoting rapid release of patients, whatever the medical indications.

Over this same period, a substantial bureaucracy had mushroomed within the State of New York Mental Hygiene Department. At first, paraprofessionals began to take over responsibilities formerly held by psychiatrists, who then departed, perceiving a sour change in climate. State hospital residencies were abolished; this effectively cut off one source of good physicians, although many now heading university departments were so trained. To advance personnel and fiscal officers, promising psychiatric candidates for higher office were nipped in the bud. In addition, State hospital schools of nursing were also abolished. That ended a source of excellent psychiatric nurses very necessary for the operation of a State, or any other, hospital. Militancy in the nursing, social-work, and psychology professions pervaded the field. The public clamor against State hospitals (and concomitant niggardly funding) gave them a worse name. Fewer psychiatrists entered hospital service, more bureaucrats assumed power, further antitherapeutic policy changes blossomed, and staff morale plummeted. Employing accounting practices, numbers rather than people became paramount. Quotas were set for hospital admissions, stays, and populations, with "bounties" in the form of salary increments for compliant directors—many of whom are now laymen. Snowed in under sterile mountains of paper work, the few remaining psychiatrists have little time for treatment of their charges. Changes in law, regulation and practice, favoring laymen, have made public psychiatry unpalatable for physicians, particularly as a career choice. Thus, the patient is again the loser, not only with respect to good medical treatment, but also so far as good medical administration is concerned. Administrative aptitude depends most on personality make-up, not on possession of an M.B.A. degree. On the other hand, a medical degree should not automatically disqualify a candidate, despite the dismal popular view that physicians lack business acumen. Quality of hospital care reflects the level of medical administration because of the commodity dispensed. Final decisions made every day at the top level need direct personal knowledge of the patient, his symptoms, his feelings, and his treatment. This is especially true in the hospital that treats long-stay, serious illness.

Treatment

The remedy for all this will be very expensive, tedious, and complicated. First, the most severely ill patients in the community must be rescued and returned to the State hospitals where buildings will have to be reopened, services reorganized, and staffs redeveloped. (California, the leader in "fiscal" psychiatry, is attempting to reopen some of its hospitals and to find competent staff.) It will be necessary to abolish quotas in favor of medical decisions on admissions and releases, made only by full staffs of competent psychiatrists, who must be free of artificial guidelines. Laws and regulations must be conscientiously reinterpreted. Certain laws and regulations do require amendment to permit hospital admission, hospital treatment and rehabilitation, and hospital follow-up, consonant with the need of the patient. To present an attractive, professional aspect, deliberate "demedicalization" of the State hospitals will have to be reversed. It may be possible to provide better remuneration of capable psychiatrists by restoring certain fringe benefits; otherwise, competition with the private sector is impossible. Recruitment of able psychiatrists will prove to be the most formidable task. However, a gleam of hope appears in the prediction of a glut of medical graduates in the 1990s. Almost as herculean will be the job of raising staff morale at all levels.

Given a good staff, adequate treatment over a proper period may be achieved. On recommendation of the psychiatrist, placement of selected patients should be arranged by qualified hospital social workers. The same procedure should effect the return of the troubled patient, as was the case in the past. To evaluate his treatment methods, good medical practice requires unbroken follow-up by the active therapist. A very simple but useful device may be recalled here: under earlier law and regulation, for many patients, trial visit (not outright discharge) was mandatory, to the great benefit of the patient, his family, and the community; this also saved much hurt, time, travel, and voluminous paper work.

With such hospital procedures restored, joint planning for coordinated treatment by the State, local, and federal agencies can go forward without carping, jostling, and suspicion as to fiscal and other responsibilities.[12] It is obvious that patterns do vary from metropolitan to rural area, and from university center to small town. Thus, the New York City picture cannot "call the tune" State-wide. In the chain of services, there will be expanded clinics, day centers, general hospitals, State hospitals,[13] halfway houses, and other facilities. Describing a full, State network of psychiatric services, the commissioner of the State of South Carolina Department of Mental Health[14] at the same time stresses biomedical research as fundamental to the problem:

> Old ways, and old philosophies which time has tested and found valid; new techniques, new programs and fresh ideas; research which each day adds to our knowledge—all of these—and more—are the modern mental health arena.

Perhaps, in national planning, measures can be found to offset uncertain funding and unstable local government. Since a host of ill people is involved, this serious psychiatric problem deserves fervent support from the medical profession, and from society at large. Concretely, support of political campaigns might well be tied to serious discussions of this major matter.

Prognosis

At best, the outlook for this medicosocial disorder is grim, but the indications are absolute.

Summary

A nation-wide, public mental-health problem of disastrous dimensions has been described, and the manifold causes discussed. Diverse complex obstructions to the repair and restructure of the apparatus for effective, long-term treatment of chronic patients, numbering many thousands, are recounted. Counter measures have been outlined, and reasons for a dim prognosis are cited.

95 Genesee Street
New Hartford, New York 13413

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Obituaries

Theodore Nelson Adams, M.D., of Johnson City, died on March 20 at the age of 69. Dr. Adams graduated in 1936 from the University of Buffalo School of Medicine. He was an active attending physician in medicine at the Charles S. Wilson Memorial Hospital. Dr. Adams was a member of the Academy of Medicine, the Broome County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Charles Salvatore Alaimo, M.D., of Buffalo, died on March 21 at the age of 73. Dr. Alaimo graduated in 1935 from Loyola University School of Medicine. He was a member of the Erie County Medical Society, the Medical Society of New York, and the American Medical Association.

Lauchlin Joseph Baker, M.D., of Ogdensburg, died on April 7 at the age of 77. Dr. Baker graduated in 1933 from McGill University Faculty of Medicine. He was a consulting otolaryngologist at the A. Barton Hepburn Hospital and a medical specialist at St. Lawrence Psychiatric Center. Dr. Baker was a Diplomate of the American Board of Otolaryngology and a member of the American Academy of Ophthalmology and Otolaryngology, the St. Lawrence County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Bennett W. Billow, M.D., of West Palm Beach, Florida, formerly of Northport, died on April 23 at the age of 69. Dr. Billow received his medical degree from the University of Brussels in 1938. Retired, Dr. Billow was a member of the Society of Nuclear Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Oscar L. Chardiet, M.D., of New York City, died on April 9 at the age of 57. Dr. Chardiet received his medical degree from the University of Havanna in 1949. He was an attending psychiatrist at Lincoln Hospital. Dr. Chardiet was a member of the American Psychiatric Association.

Moritz David, M.D., of The Bronx, died on March 15 at the age of 66. Dr. David received his medical degree from the University of Bologna in 1939. He was a member of the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Lillian Rufina Dooher, M.D., of Williston Park, died on April 11 at the age of 57. Dr. Dooher graduated in 1949 from Long Island College of Medicine. She was a member of the American Psychiatric Association, the Nassau County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Leslie Hillel Farber, M.D., of New York City, died on March 24 at the age of 68. Dr. Farber graduated in 1938 from Stanford University School of Medicine. He was a Diplomate of the American Board of Psychiatry and Neurology (Psychiatry), a Fellow of the American College of Physicians, and a member of the American Psychiatric Association, and the American Psychoanalytic Association.

Frank Henry Granito, M.D., of The Bronx, died on March 5 at the age of 77. Dr. Granito graduated in 1929 from the University of Michigan Medical School. He was an attending physician in internal medicine at Westchester Square Hospital. Dr. Granito was a Fellow of the American College of Cardiology, a Fellow of the American College of Chest Physicians, and a member of the New York Academy of Medicine, the New York Cardiological Society, the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Anafred Nelson Halpern, M.D., of New York City, died on May 23 at the age of 53. Dr. Halpern graduated in 1951 from New York Medical College. She was an assistant pediatrician at St. Luke's Hospital Center. Dr. Halpern was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Milton Perry Hunter, M.D., of Pleasantville, died on April 19 at the age of 84. Dr. Hunter graduated in 1927 from the University of Pennsylvania School of Medicine.

Anthony R. Kritkausky, M.D., of Binghamton, died on April 12 at the age of 67. Dr. Kritkausky graduated in 1938 from the University of Buffalo School of Medicine. He was a general practitioner at Binghamton General Hospital and at Our Lady of Lourdes Memorial Hospital. Dr. Kritkausky was a member of the American Academy of Family Physicians, the American Geriatrics Society, the Binghamton Academy of Medicine, the Broome County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Julius Lebovitz, M.D., of Forest Hills, died on March 16. Dr. Lebovitz received his medical degree from the University of Pecs in 1923.

Judith Mona Lehotay, M.D., of Buffalo, died on March 19 at the age of 54. Dr. Lehotay received her medical degree from the University of Budapest in 1956. She was a consulting pathologist at Buffalo Columbus Hospital. Dr. Lehotay was a Diplomate of the American Board of Pathology (Forensic Pathology), a Fellow of the College of American Pathologists, and a member of the Erie County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Paul J. Lepore, M.D., of New York City, died on April 24 at the age of 82. Dr. Lepore graduated in 1923 from Long

Island College Hospital. He was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Sarah Liberson, M.D., of Albany, died on April 8. Dr. Liberson graduated in 1945 from Albany Medical College. She was a Diplomate of the American Board of Radiology and a member of the Radiological Society of North America, Inc., and the Radiological Society of New York State.

Andrew Joseph McGowan, M.D., of Jamaica and South Ozone Park, died on April 4 at the age of 84. Dr. McGowan graduated in 1924 from Tufts University School of Medicine. He was a member of the American Urological Association, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

John Byron Poore, M.D., of Corning, died on March 12 at the age of 62. Dr. Poore graduated in 1943 from Columbia University College of Physicians and Surgeons. He was director of pathology at Corning Hospital, a consulting pathologist at Davenport Memorial Hospital, Inc., and the Veterans Administration Hospital (Batavia). Dr. Poore was a Diplomate of the American Board of Pathology (Pathologic Anatomy), a Fellow of the College of American Pathologists, and a member of the American Society of Clinical Pathologists, the New York State Society of Pathologists, the Steuben County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Julian Izrael Przyrowski, M.D., of The Bronx, died on March 21 at the age of 67. Dr. Przyrowski received his medical degree from the University of Bologna in 1937. He was a member of the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Irvine I. Redler, M.D., of New York City, died on April 7 at the age of 78. Dr. Redler received his medical degree from the University of Lwow in 1933. He was an associate orthopedic surgeon at Bellevue Hospital and an assistant attending orthopedic surgeon at University Hospital. Dr. Redler was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Norbert Rosenbaum, M.D., of Flushing and Jackson Heights, died on March 18 in his 83rd year. Dr. Rosenbaum received his medical degree from the University of Breslau in 1924. He was a staff general practitioner at Boulevard Hosptal. Dr. Rosenbaum was a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Theodore Rosenthal, M.D., of New York City, died on March 23 at the age of 80. Dr. Rosenthal graduated in 1923 from Columbia University College of Physicians and Surgeons. He was a staff physician at the New York City Veterans Adminstration Hospital. Dr. Rosenthal was a Diplomate of the American Board of Dermatology, Inc., a Diplomate of the American Board of Preventive Medicine, Inc., and a member of the American Public Health Association, the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Clarence J. Schein, M.D., of The Bronx, died on April 17 at the age of 63. Dr. Schein graduated in 1942 from New York University College of Medicine. He was a consulting surgeon at Montefiore Hospital and Medical Center. Dr. Schein was a Diplomate of the American Board of Surgery, a Diplomate of the American Board of Thoracic Surgery, a Fellow of the American College of Gastroenterologists, a Fellow of the American College of Surgeons, and a member of the American Gastro-Enterological Association, the New York Academy of Medicine, the New York Society for Thoracic Surgery, the New York Academy of Gastroenterology, the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Georg Heinrich Sell, M.D., of New York City, died on April 23 at the age of 43. Dr. Sell received his medical degree from the University of Munich in 1963. He was an associate in rehabilitation medicine at Bellevue Hospital and an assistant attending in rehabilitation medicine at University Hospital. Dr. Sell was a member of the American Academy of Physical Medicine and Rehabilitation, the New York Society for Physical Medicine and Rehabilitation, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Kenneth Shulman, M.D., of The Bronx, died on March 23 at the age of 52. Dr. Shulman graduated in 1954 from Washington University School of Medicine (St. Louis). He was director and chairman of neurosurgery at Bronx Municipal Hospital Center, acting chairman of neurosurgery at Montefiore Hospital and Medical Center, a neurosurgeon at The Bronx-Lebanon Hospital Center, director and chairman of neurosurgery at Albert Einstein College of Medicine, and a consulting neurosurgeon at St. John's Riverside Hospital. Dr. Shulman was a Diplomate of the American Board of Neurological Surgery, a Fellow of the American College of Surgeons, and a member of the American Association of Neurological Surgeons, the American Academy of Pediatrics, the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

David Steinberg, M.D., of Jamaica, died on July 13, 1980, at the age of 78. Dr. Steinberg graduated in 1924 from the University of Georgia Medical College. He was an associate in medicine at Mary Immaculate Hospital. Dr. Steinberg was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, and a member of the New York State Society of Internal Medicine, the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Henry Charles Stoll, M.D., of Brooklyn, died on March 31 at the age of 53. Dr. Stoll graduated in 1947 from the University of Rochester School of Medicine. He was a pathologist at Lutheran Medical Center as well as chief of pathologic anatomy there. Dr. Stoll was a Diplomate of the American Board of Pathology (Pathologic Anatomy) and a member of the International Academy of Pathology, the American Society of Clinical Pathologists, the Medical Society of the County of Kings, the Medical Society of the

State of New York, and the American Medical Association.

Arthur Charles Swartz, M.D., of New London, Connecticut, formerly of Albany, died on November 12, 1980, at the age of 85. Dr. Swartz graduated in 1921 from Albany Medical College. He was a member of the Albany County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Andrew Howard P. Swift, M.D., of Latham, died on February 24 at the age of 65. Dr. Swift graduated in 1956 from Albany Medical College. He was a consulting radiologist at Bellevue Maternity Hospital.

Henry Leslie Wilkins, M.D., of South Ozone Park, died on April 11. Dr. Wilkins graduated in 1944 from Meharry Medical College.

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Abstracts in Interlingua

Frampton, M. W.: Arteritis temporal; septe variationes, **New York State J. Med. 81:** 1179 (Julio) 1981.

Septe (7) casos de arteritis temporal es presentate; cata un illustra un aspecto differente del spectrum del morbo. Es emphatisate le importantia del diagnose prompte e correcte, e etiam del dilemma therapeutic prolongate con corticosteroides in le patientes ancian.

Rubler, S.: Test de exercitios in feminas diabetic asymptomatic, **New York State J. Med. 81:** 1185 (Julio) 1981.

Un gruppo de 17 feminas diabetic (etate promedio 39.6 ± 9 annos) e 9 feminas san (etate promedio 38 + 5.2 annos) facite exercitios in un apparato ("treadmill") motorisate de accordo con le protocolos de Bruce. Le electrocardiogrammas de 12 derivationes standard esseva registrate cata minuto durante le exercitio e etiam cata 3, 5 e 8 minutos depost le exercitio. Le pression sanguine, le consumption de oxygeno e le duration del systole ventriculari sinestre etiam esseva registrate. Le tachycardia esseva major in le feminas normal que in le feminas diabetic (98.2 ± 17.1 versus 85.7 ± 11.2 pulsationes per minuto); le duration del exercitio esseva plus longe in le prime gruppo de feminas (587.7 ± 100.3 secondos que in le ultime gruppo (455.0 ± 122.7 secondos); le consumption de oxygeno esseva plus elevate (33.4 ± 5.6 ml de oxygeno per kilogrammo per minuto) in le feminas normal que in le feminas diabetic (26.5 ± 6.9 ml O_2/kg/min.). Octo (8) feminas del gruppo diabetic e 2 feminas san disveloppate depressiones significative del segmento ST durante o depost le exercitio. Omne feminas diabetic que habeva electrocardiogrammas abnormal esseva de plus que 38 annos de etate. Le disminution del incrementos del rhythmo cardiac, le disminution del performantia del exercitio e le plus elevate frequentia del depressiones del segmento ST pote presumer le disveloppamento de un morbo cardiac clinic secondari a un dysfunction myocardial o a un morbo del arterias coronari. Le studios prolongate e seriate pote identificar le personas in risco de disveloppar un morbo cardiovasculari in le population diabetic que ha un elevate susceptibilitate pro iste morbo cardiovasculari.

Kutcher, R., Rosenblatt, R., e Weissman, H.: Apparentia sonographic del cholecystitis emphysematose, **New York State J. Med. 81:** 1192 (Julio) 1981.

Le apparentia sonographic del cholecystitis emphysematose consiste in echos formante un banda ample e constate de amplitude elevate con umbras acustic "blande o suave" emanante del quadrante superiori directe. Le localisation del vesica biliari e le differentiation de altere processos pathologic es discutite. Le diagnose temprane es imperative debite al elevate morbiditate e mortalitate observate in le patientes con iste morbo.

Zaino, E. C.: Contos sanguine in le nonagerianos, **New York State J. Med. 81:** 1199 (Julio) 1981.

Contos sanguine esseva facite in 96 personas de 96 a 106 annos de etate. Iste contos includeva le hemoglobina, le hematocrito, le contos del leukocytos e le examination differential; le pression sanguine etiam esseva determinate. Le resultatos indicava un valor medie de hemoglobina de 12.3 grammos per decilitro; iste valor esseva inferiori al valor medie obtenite in adultos juvene. Le pression sanguine medie esseva 121/69. Le sexo e le sito de nascentia non influeva le valores del hemoglobina, hematocrito, conto leukocytari e le examination differential, o le pression sanguine.

Whitehead, E. D.: Tractamento del carcinoma del vesica urinari, **New York State J. Med. 81:** 1201 (Julio) 1981.

Le carcinoma del vesica urinari es le tumor maligne plus frequente del tracto urinari que causa approximatemente 10.000 mortes al anno. In iste articulo es revistite le etiologias cognoscite e suspectate, le methodos de detection, le diagnose currente, le prognose e le phases del investigationes in curso, le principios e alternantia therapeutic e le methodologia pro le observation ulteriori del patientes.

Translated by Eduardo I. Juliet, M.D.

continued from page 1167

If the Swiss surgeon, Theodore Kocher, was the father of thyroid surgery, Halsted was surely its accoucheur. While still at Bellevue he, together with Spencer Wales, the London surgeon, devised the clamps that make possible its performance in a bloodless field. And it was Halsted who found that loss of the parathyroid function was the cause of tetany.

Bassini, the Italian, was deservedly recognized as the inventor of techniques for the correction of hernias, but Halsted must be credited with devising the method of inguinal herniorrhaphy that produced complete cure, with no recurrence of the condition.

Halsted's invention of a procedure, however crude and cumbersome, led to a sort of self-transfusion of the victim. The stricken individual's blood supply was almost completely withdrawn, defibrinated by means of an instrument that was much akin to a kitchen tool used for beating eggs and whipping cream, then returned to the patient, who was, in effect, his own blood donor.

When I was in medical school, 1919 to 1922, syphilis was generally believed to be the cause of subclavian aneurysm. I remember some of my mentors displaying a young man who showed up with this painful and usually fatal arterial bulge, subjecting him to repeated Wassermanns and cross-examining him with almost prosecutorial zeal as to whether he had recently sprouted a chancre or had ever had syphilis; all the while Halsted, then at Johns Hopkins, was devising the arterial clamp that allowed the aneurysm to rest, scar, and thus heal itself.

It was at Bellevue that Halsted revealed the efficacy of radical surgery for breast cancer. In those days the disease was even less well-understood than now, the method of treatment more or less superficial, and hence the mortality enormous. At a time when the condition was usually well advanced before discovery, Halsted was able to announce in 1894 that a five-year follow-up of 232 cases in which he had performed radical surgery showed no recurrence in 42 percent of them.

In 1880 Halsted performed the first recorded cholecystectomy in North America, another Bellevue first, and in subsequent operations he determined that failure to obtain meticulous closure of the common duct resulted in leakage of bile and its resultant bile peritonitis, so often fatal.

Now, almost a century later, my cardiologist having noted the greenish tint of jaundice in my sclerae, I was about to have my own gallbladder removed. As the belly scrub, the shave, and the demerol and atropine were being prepared, some mysterious thought process made me remember another cholecystitis and choledocolithias 57 years before, when I was a resident on the 4th Surgical Division at Bellevue and was scrubbing with the attending visiting surgeon who was about to perform the operation. During the discussion around the operating table as the operation progressed, someone mentioned drainage, the T-tube in the common duct, and the Penrose drain in the gallbladder fossa. The attending observed that Halsted had shunned drainage, thus lessening the possibility of infection and also promoting a tidier recovery period. He decided to follow Halsted's precept and not to drain but to close the common duct completely after evacuating the stones. The patient developed an altitudinous temperature, marked abdominal distention, tachycardia, and bile peritonitis. Quick resort to drainage saved her life. Hers was the first and last no-drainage gallbladder surgery performed at Bellevue Hospital in my 60 years there.

Halsted had seemed to have an unequalled skill with needle and suture; his closure of the common duct was a matchless work of art. A few months before my operation, I had watched a television interview with Artur Rubinstein, who in my book is the greatest pianist of my time. When the interviewer referred to his genius, Maestro Rubinstein replied approximately as follows: "No, no, the composers, they had genius. We (meaning the performers) just have talent."

Just before the anesthesiologist clamped the mask over my face the surgeon, who is also my good friend, grasped my shoulder and wished me luck. I wished him luck, too, and added, "And stay here, you son of a bitch, until the operation's over." And as he moved away I said: "And please, Arthur, Please don't leave out the drain."

LESTER BREIDENBACH, M.D.
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New York, N.Y. 10022

Chronic granulomatous hepatitis

To the Editor: Slavutin[1] reports a case of chronic granulomatous hepatitis whose etiology proved elusive. Indeed, there is a group of patients who may be labeled as idiopathic granulomatous hepatitis. Yet, I would like to make the author aware of a test that may be helpful in establishing a diagnosis of sarcoidosis. ACE (angiotensin converting enzyme) has been shown in recent years to be associated with the active phase of sarcoidosis.[2–4] Furthermore, those patients who respond to steroid therapy will manifest a distinct decrease in ACE as recovery progresses. Although false positive tests for ACE do exist (primarily Gaucher's disease and leprosy[3]) the test may be helpful if the diagnosis of sarcoidosis is clinically suspected and if the ACE value is extremely high. In a recent study by Katz et al.,[5] measuring ACE among various groups of patients with known granulomatous diseases, it was shown that none of the nonsarcoidosis patients had as high ACE values as did many of the sarcoidosis patients. Lieberman et. al.[4] have elaborately shown the ACE values to be low or normal for many nongranulomatous conditions.

Much more investigation is needed in clinical work with ACE. Perhaps its use with gallium scanning and/or lysozyme assays may enhance its specificity. Yet, in the case mentioned, it may have clarified a problem that even autopsy could not resolve.

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1982
ANNUAL CME ASSEMBLY

Medical Society of the State of New York

JUNE 25–27, 1982

Rye Town Hilton, Port Chester, New York

Scientific Program

Any State Society member who wishes to present a paper before a scientific section or a general session is requested to write to Stephen Nordlicht, M.D., Chairman of Scientific Program Committee at the address given below.

A short abstract of the proposed presentation should accompany the letter

DEADLINE: August 31, 1981.

Scientific Exhibits

Requests for scientific exhibit space should be addressed to Thomas S. Bumbalo, M.D., Chairman, Scientific Exhibits Subcommittee at the address given below.

DEADLINE: March 1, 1982

◆

Address all communications to either of the Chairman—

Medical Society of the State of New York
420 Lakeville Road
Lake Success, New York 11042

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ing by both sides. Democratic committee chairmen warned in House speeches that the House's hands would be tied to the Reagan economies for the rest of the year, if the President's plan were approved.

Reagan met personally with most of the Democrats who finally voted his way. The 63 bolting Democrats provided an easy win for the Administration as they joined all Republican members of the House.

* * *

The Administration has sent Congress its formal recommendations for changes in Medicaid and Medicare, including the "cap" of five percent on federal Medicaid outlays aimed at saving $1 billion next fiscal year.

The federal ceiling would be about $17 billion next fiscal year. In the future the limit would be allowed to rise with the rate of inflation. The "cap" is necessary to control Medicaid costs, the Administration said.

"With the flexibility available through the Administration's proposed revisions in program requirements, cost restraint can be achieved by the states without reducing necessary services for the needy. The states would be able to design programs which will provide for health care delivery in much more economical and efficient ways," said the HHS (Health and Human Services) Department in a statement.

The most controversial of the recommendations would repeal the freedom of choice requirement in present law which gives Medicaid beneficiaries the right to choose their facility or physician. This would be replaced by a requirement "to provide standards that afford medical care of adequate quality." HHS said this change would allow states "to effect significant cost savings while maintaining quality care, for example, by soliciting competitive bids for provision of covered services."

In addition, all federal requirements on the amount and method of reimbursement of providers would be eliminated. This includes the present requirements for reimbursement of inpatient hospital services as well as "barriers in the law to reimbursement based on fee schedules." Provisions which "have restricted the use of health maintenance organizations" in providing Medicaid care were lifted.

The legislation calls for a phase-out of the "costly and burdensome" PSRO (Professional Standards Review Organization) activities for both Medicaid and Medicare. "Effective PSROs would be supported until 1983. States would have discretion to determine the most appropriate form of review and to set up state utilization review requirements. Effective PSROs would be able to compete for state or private contracts within the health care system."

Eliminated would be federal requirements for hospital and nursing home utilization review plans and committees. PSRO agreements could be terminated on 90 days notice without formal hearing or judicial review. State PSRO coordinating councils would be ended.

The legislative changes in Medicare were less controversial but were intended to save about the same amount of money—$1 billion. Private health insurance companies, including Blue Cross-Blue Shield, would be affected by a proposal to phase-in over a five-year period competitive bidding for award of contracts for claims processing. Medicare would be allowed to contract with any public or private organization for claims processing. HHS contended incentives for efficiency and economy don't exist under the present noncompetitive bidding structure and anticipated savings of some $120 million a year by 1985.

Other proposed Medicare changes:

* new civil financial penalties for provider fraud and abuse and ability to bar offenders from participating in the program.

* elimination of the higher rate of reimbursement for routine nursing care for Medicare patients.

* reducing or eliminating relatively minor benefit expansions adopted by Congress last year, including outpatient alcohol detoxification and outpatient rehabilitation facilities and unlimited home health service visits.

* elimination of federal end stage renal disease networks.

* * *

The Health Planning Act "is ill conceived, beyond salvage and must be repealed," the American Medical Association has told the National Council on Health Planning and Resources Development.

Since its inception, the planning program has not been responsive to local needs and circumstances, the Council was told by Lonnie Bristow, M.D., a member of the AMA Council on Medical Service. Planning has developed into a "Bureaucratic maze of plans, applications, and red tape that unduly delayed the development of needed projects and substantially increased individual project costs," Dr. Bristow told the meeting, conducted by HHS.

Urging repeal of the program, which the Reagan Administration has proposed phasing out, Dr. Bristow said planning has inhibited market forces needed to strengthen competition in the health care marketplace and "represents the antithesis of a free market system by establishing barriers to free entry by qualified providers in the marketplace."

The AMA official said the association is committed to seek improvements in the health care delivery system through a voluntary system that will reduce or eliminate barriers to the provision of high quality medical and health services. Dr. Bristow called for a collaborative effort at the community level.

Legislation to repeal the Health Planning Law has been introduced in Congress by Representatives Richard Shelby (D., Ala.) and Phil Gramm (D., Texas).

The repeal legislation was strongly supported by the AMA which said repeal "is absolutely necessary to end federal interference in local planning decisions."

Noting that an end to funding, as the Administration recommends, does not end the federal requirement that states enact conforming certificate-of-need laws, the AMA said flat repeal won't be an easy task.

Listing its objections to the program in a "legislative alert" statement, the AMA said planning imposes federal regulations on what should be primarily locally-directed health planning. The program is not cost-effective and is anticompetitive, "creating barriers to market entry through burdensome certificate-of-need and other approval requirements," the AMA said.

The highly-complex law and regulations cause "excessive" time and resources devoted to red tape instead of delivery of care, the AMA said.

* * *

People don't realize the health hazards of smoking, the Federal Trade Commission staff has said in a report to Congress.

The report mentions a number of options that might be taken to alert the public, including:

* Increasing consumer education
* Making the current warning label on cigaret packages and ads larger and/or more specific.
* Requiring different warnings at different times.
* Starting an industry-self-regulation program.

The staff report, which leaves it up to Congress what steps to take, concludes that the evidence accumulated over the past two decades establishes that cigaret smoking is more dangerous than was thought in 1964 when the first surgeon general's report was issued. Present warning requirements apparently do not educate the public on the dangers, the report said.

* * *

Legislation to limit special pay for Veterans Administration physicians and dentists has been opposed by the AMA. Passage "would definitely have an adverse impact on the ability of the VA to recruit and retain adequate physician staff," the AMA said in a letter to the Senate Veterans' Affairs Committee. The measure before the Committee would allow only 12 percent of the total appropriation for VA physician and dentist pay to be expended for special pay.

"The AMA firmly believes that all physicians in federal employ should receive an equitable and comparable salary and benefits," and the bill "would be a step away from this goal," said AMA Executive Vice President James Sammons, M.D.

* * *

Six hundred medical students rallied in Washington, D.C., to protest Reagan Administration cuts in the federal health budget.

Senator Edward Kennedy (D., Mass.), Representative Henry Waxman (D., Calif.) and Representative Barbara Mikulski (D., Md.) told the students that poor people would be severely affected by the proposed economies.

Other health students and workers held meetings in other cities and at medical schools for the national Day of Concern for Health.

Kathleen Jennison, M.D., President of the American Medical Student Association, said that medical students are building momentum now to alert communities and patients to the impact of the budget cuts. "We are very alarmed at what we feel will be a patient crisis," Dr. Jennison said.

* * *

The National Fund for Medical Education has announced new priorities for its $1 million funding program. They are: further advances in cost containment education, improving communications between patients and their physicians, improving the ability of medical schools to select students who will make good physicians, promoting interest in careers as physician-investigators and as teachers, and finding new ways to integrate into the medical curriculum subjects inadequately addressed in the past. The Fund is a public foundation supported entirely by the private sector.

* * *

Prepared by the Washington, D.C., office of the American Medical Association.

Correction

The Journal apologizes to Joong H. Choh, M.D., Ramsdell Gurney, M.D., Sadashiv S. Shenoy, M.D., James Upson, M.D., and Thomas Z. Lajos, M.D., for publishing Figure 1A, page 930, May, 1981, issue, *upside down* in their article "Renal-Cell Carcinoma; Removal of intracardiac extension with aid of cardiopulmonary bypass."

An apology is *also* extended to Dr. Lajos for the omission of his "M.D.," degree.

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Continued

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Medical News

Glorney-Raisbeck Fellowship in the Medical Sciences

There will be a Glorney-Raisbeck Fellowship in the Medical Sciences awarded by the Committee on Medical Education of The New York Academy of Medicine for one year of research and/or study at an institution other than the one in which a residency has been served in the United States or abroad in any field of medicine and its allied sciences, beginning July 1, 1982.

The Fellowship which carries a stipend of $20,000 is open to citizens of the United States who hold the M.D. degree and, preferably, those who have just completed or are in the last year of their residencies at the time of application, and who are located in the New York Metropolitan area. Applicants must have demonstrated aptitude in research and teaching.

Applicants must provide written assurance that they will have institutional appointments which will enable them to carry out their planned programs of research and/or study. (Such institutions will be encouraged to supplement the Fellowship stipend.) The Fellowship is not available for the supplementation of residency salaries or other full-time staff salaries.

The deadline for receipt of applications is November 1, 1981. Applicants will be required to appear before the Awards Committee for a personal interview at a meeting to be held in December. Announcement of the Award will be made late in December.

Bowen-Brooks Scholarship for Advanced Study Abroad

In the current year, the Committee on Medical Education of The New York Academy of Medicine will award one Bowen-Brooks Scholarship in the amount of $20,000 for the year beginning July 1, 1982.

The Scholarship was established by the donor to provide aid for advanced study in a clinical subject in preparation for the practice of medicine or surgery in any of their branches.

As stipulated by the donor of the fund, candidates must be residents in voluntary, municipal, or Veterans Administration Hospitals in New York City.

The course of study, the auspices under which it is to be taken, and the place or places where the study is to be pursued must receive approval of the Committee. Applicants are favored who, from their records, show themselves capable of advanced work in clinical medicine. The Committee stipulates that the study be pursued abroad, preferably in Great Britain or in Continental Europe.

The deadline for receipt of applications is November 1, 1981. Applicants will be required to appear before the Awards Committee for a personal interview at a meeting to be held in December. Announcements of the Award will be made late in December.

All inquiries and applications for the Glorney-Raisbeck Fellowship and the Bowen-Brooks Scholarship should be directed to the Office of Medical Education, The New York Academy of Medicine, 2 East 103rd Street, New York, N.Y. 10029

Donne Simone Glaucoma Fellowship

The Ophthalmological Foundation of America is pleased to announce the availability of the Donne Simone Glaucoma Fellowship. This annual fellowship is open to applicants who have interest in glaucoma physiology and clinical glaucoma problems.

Further inquiries should be directed to: Mrs. Ruth Green, Administrator, Ophthalmological Foundation of America, Inc., 113 East 39th Street, New York, New York 10016.

AMA Foundation awards grants to nation's medical schools

A total of $1,282,599 was channelled directly to the nation's medical schools this spring in grants from the American Medical Association Education and Research Foundation, Hubert A. Ritter, M.D., Foundation president, announced recently.

"The AMA-ERF is indeed grateful to the membership of the AMA Auxiliary for its continuing fine work to raise funds for the medical school grant program," said Dr. Ritter, a St. Louis physician.

Through the years, he said, the Auxiliary units throughout the nation have taken the lead in bringing in substantial funds for the projects of the AMA's Education and Research Foundation. More than $30 million have been raised by AMA-ERF for medical schools over the years.

Amounts of the 1981 grants varied considerably, but virtually every school in the United States and most of the Canadian schools received some funds, Dr. Ritter declared.

Much of the money earmarked for direct grants to specific schools comes from physicians who are graduates of those schools and wish to support their alma mater. Thus, the older schools with large contigents of alumi generally received the largest grants.

Grants are made directly to the deans of the schools without restrictions to help the deans pursue excellence in the medical school programs. Deans have declared that through the years the unrestricted funds are most welcome, as most of their money is earmarked for specific programs.

Grants were received by the following schools in New York State: Columbia University College of Physicians and Surgeons, New York—4,359.21; Albany Medical College of Union University—5,054.25; State University of New York at Buffalo School of Medicine (University of Buffalo Foundation)—9,170.36; State University of New York, Downstate Medical Center (Faculty Student Association)—5,622.32; New York Medical College, Flower and Fifth Avenue Hospitals—4,508.22; State University of New

Material for inclusion in the medical news section must be received eight weeks prior to publication.

York Upstate Medical Center (Faculty Student Association)—3,651.54; New York University College of Medicine—4,151.04; Cornell University Medical College—5,184.67; University of Rochester School of Medicine and Dentistry—5,910.17; Albert Einstein College of Medicine, Yeshiva University, The Bronx—1,550.19; Mount Sinai School of Medicine, New York—1,690.19; and State University of New York, Stony Brook Health Sciences Center—1,141.50.

Change of name

The Joslin Diabetes Foundation, Boston, Massachusetts, changed its name to the Joslin Diabetes Center on April 3.

Applications for research grants now being accepted

The Leukemia Society of America, a national voluntary health agency, is now accepting applications for 1982 grants to support research in the fields of leukemia and related disorders.

As an important source of funding for individual investigators whose work is concentrated on uncovering the cause or cure for leukemia, the lymphomas and Hodgkin's disease, the Society offers three types of awards.

Five-year scholarships for a total of $125,000 are available for researchers who have demonstrated their ability to conduct original investigations in the specified fields. Two-year special fellowships and fellowships, for $37,000 and $30,000 respectively, are offered for those in the intermediate and entry stages of career development. In all categories, candidates must hold a doctoral degree but may not have attained the tenured status of associate professor.

Deadline for filing applications is September 1, 1981. Only one application in each grant category from an individual sponsor will be considered. Project proposals will be evaluated on a competitive basis by the Society's Medical and Scientific Advisory Committee. The reviews will take place next January with funding to start July 1, 1982.

Application forms and further information may be obtained by writing to Leukemia Society of America, 800 Second Avenue, New York, N.Y. 10017.

Here and there

Appointed: Physicians from New York State appointed to the executive board of the American Academy of Neurology for 1981 to 1983 are: *secretary-treasurer*-Lawrence D. Jacobs, M.D., Buffalo; *councillors*-Audrey S. Penn, M.D., New York City; and *editor-in-chief;* Neurology—Lewis P. Rowland, M.D., New York City . . . recent appointments to the faculty at Downstate are: Howard A. Joos, M.D., as clinical professor of pediatrics; Manuel Trujillo, M.D., as associate professor of clinical psychiatry; Joseph J. Kelter, M.D., as clinical associate professor of medicine; and Fayek L. Nakhla, M.B., B.Ch., M.S., as clinical associate professor of psychiatry . . . appointed as new members of the USP (United States Pharmacopeia and the National Formulary) from New York State are: Michael Katz, M.D., professor of pediatrics, Columbia University College of Physicians and Surgeons, and Harry Most, M.D., professor of medicine, New York University Medical Center.

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Coming
in
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Journal of Medicine

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Meningococcal Septic Arthritis in Infancy
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Radiologic Problems

CNS Infections: Etiologic and Epidemiologic
Hay Fever
Acute Suppurative Mediastinitis

Case Reports

Treatment of Pulmonary Embolism: Realistic Look
The Retarded Adolescent's Future

School Health

●

Medical Meetings

Three-day course

"The First Annual Advanced Course in Lower Extremity Prosthetics," a three-day course, will be offered at the Nassau County Medical Center, September 9, 10, and 11.

This course has been approved for CME credits for 17 hours by the Nassau County Medical Center, the American Academy of Physical Medicine and Rehabilitation, and the American Academy of Orthotists and Prosthetists from Category I of the Physicians' Recognition Award of the American Medical Association.

Physicians wishing further information should contact: Lawrence W. Friedmann, M.D., F.A.C.A., F.I.C.A., Chairman, Department of Physical Medicine and Rehabilitation, Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow, N.Y. 11554; telephone: 516-542-2525.

Call for speakers— medical symposium on trauma

The 8th Medical Brigade of the U.S. Army Reserve will be giving a Medical Symposium with AMA credit on September 12–13, 1981, at the Halloran House, N.Y.C.

Civilian and military physicians are sought to speak on the various aspects of "Trauma," to include burns, shock, gunshot wounds, emergency treatment, and psychological trauma.

Interested physicians may call (212)836-4100 Ext. 4060 or 4780, CPT. Braisted (outside area code 212 call collect).

AMA to offer language study for foreign-trained physicians

The American Medical Association next fall will offer an intensive one-day course on improving English pronounciation for foreign physicians.

The course is designed to assist foreign physicians now in practice in the United States in improving spoken communications with their patients.

Sessions will be held Saturday, September 12, at New York Academy of Medicine in New York City. Physicians attending will receive formal credits in continuing medical education.

The course will be taught by Mrs. Elizabeth Lang, professor of English as a second language, Cuyahoga Community College, Cleveland, Ohio. Mrs. Lang has developed a study manual and cassette tapes for home study.

There will be lectures and practice on producing the sounds of general American English, intensive oral drill and criticism of individual students, and practice in sustained discourse through reading and extemporaneous speaking.

The course is limited to 20 students. If it is oversubscribed by as many as 10, an additional course will be held on Sunday, September 13.

Further information on the course is available from Henry Mason, Division of Professional Relations, AMA, 535 N. Dearborn St., Chicago, IL 60610. Course director is Mortimer Enright, head of the AMA's Speakers and Leadership Programs Section.

Material for inclusion in the medical meetings section must be received eight weeks prior to publication date

American medical writers conference

The communicator's role in bringing medical advances such as interferon and DNA research to the general public is one of the themes for the 41st Annual Conference of the AMWA (American Medical Writers Association). The conference, expected to draw more than 350 medical communicators, will be held September 22–26, at the Prince Hotel in Toronto, Ontario, Canada.

Rosalyn S. Yalow, Ph.D., 1977 Nobel laureate in physiology/medicine, will be the distinguished guest lecturer. She is the senior medical investigator at the Veterans Administration Medical Center in The Bronx, N.Y.

The annual AMWA conference features panel presentations geared for medical editors, pharmaceutical industry writers, health care public relations professionals, and freelance medical writers, plus more than 20 workshops and seminars aimed at improving communications skills.

AMWA offers certification to those who complete the Core Curriculum Program—intensive workshops in five areas of biomedical writing and editing offered at the national conference. Certification in one area of interest requires 24 hours of coursework; cross-discipline certification requires 30 hours.

For more information and registration materials, contact: American Medical Writers Association, 5272 River Rd., Suite 370, Bethesda, Md. 20016, telephone: 301/986-9119.

Second national seminar on community cancer care

The second national seminar on community cancer care will be held September 25, 26, and 27 at the Hyatt Regency, Indianapolis, Indiana. The seminar is sponsored by the Clinical Oncology Center and the Graduate Medical Center at the Methodist Hospital of Indiana, Inc.

For information write: Office of Continuing Medical Education, Methodist Hospital of Indiana, Inc., 1604 N. Capitol Avenue, Indianapolis, Indiana 46204.

World conference on alcoholism

The first World Conference on Alcoholism will be held at the Tara Hotel, London, England, September 25 through October 3, 1981.

The symposium with speakers from throughout the world will be directed to: (1) the disease concept of alcoholism; (2) the stigma of alcoholism and how to remove it;

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Adolescent Pregnancy and Nutrition

Betty Ruth Carruth, Ph.D.
Director of Nutrition
University of Texas Health
Science Center
Dallas, Texas 75235

Changes in the sexual behavior of teenagers in the United States in recent decades involve all segments of the population and the consequences of these behaviors are having an impact on the health care system and the health professional who provides services. Zelnik, et al., reported that one in five females have intercourse by age 16 and one in ten get pregnant before age 17. Over one-third of the females who are sexually active premaritally have a premarital pregnancy before reaching age 19, with one-quarter becoming pregnant by age 17.[1]

For the years 1957 to 1974, the overall fertility rate decreased for females ages 15-17 years; however, the number of adolescent girls almost doubled in that period so the actual number of live births to that age group has changed little.[2] The fertility rates for females less than 15 years have risen. As could be anticipated, 85 percent of the births to girls 15 years and younger were illegitimate as compared to 23 percent of those born to girls age 19. Live births to girls ages 15-17 years increased by more than 20 percent during the years 1966-1975.[3,4]

Sociological Implications

The pregnant teenager has less opportunity to develop self-esteen, gain skills for economic independence, and to separate from the family unit or environment which contributed to behaviors that resulted in a pregnancy.[5] Sugar described a syndrome of failures characteristic of many pregnant adolescents who become more dependent on the family, welfare systems and child-care assistance, and who are frequently abandoned by the putative father or husband.[6]

Health Implications of Adolescent Pregnancy

In terms of health risks, the younger the mother the greater the risk of having a low birth-weight infant with the sequela of possible abnormalities of development, inadequate bonding of mother and child, and potential for child abuse and neglect.[5] In 1979, the Committee on Adolescence of the American Academy of Pediatrics published a "Statement on Teenage Pregnancy."[7] The main complications of teenage pregnancy were considered to be pre-eclampsia and low birth-weight infants. The time interval between onset of menses and conception was a risk factor because conception two years or less after onset of menses was associated with a higher incidence of low birth-weight infants, irrespective of social class. The etiology of pre-eclampsia is unknown and develops as the onset of hypertension, albuminuria or edema between the 20th week of pregnancy and the first week postpartum.

Other factors, smoking, alcohol and drug use, socio-economic status and nutrition, influenced the pregnancy outcome in all age groups. In addition, early and adequate prenatal care, as well as an absence of pre-existing chronic health problems, enhanced pregnancy outcome. Generally, teenagers seek prenatal care later and have fewer total visits than older women of childbearing age. Therefore, the biological maturity, the amount and frequency of prenatal care, as well as the overall life-style of adolescents, place them at a greater risk than women in the 20-24 age group.

Nutrient Needs During Pregnancy

Both pregnancy and adolescence are periods of increased requirements for energy and for some 40 essential micro- and macronutrients. The most rapid rate of skeletal and muscle growth for adolescents is prior to menarche. Following menarche, the rate of tissue synthesis rapidly declines, reaching adult levels within two to three years.[8] Thus, if a teenager has good nutritional practices prior to pregnancy, the health risks are reduced for both her and the infant.[9]

Recommended Dietary Allowances (RDAs)

The RDAs represent a norm for estimating nutrient allowances of groups. They are often applied improperly to food intake records of individuals. They also are based on chronological age rather than maturity. A review of the 9th edition reveals the limited scientific data upon which allowances for nonpregnant and pregnant adolescents are based.[10] Epidemiological surveys describe practice but do not establish nutrient requirements. Thus, in most part, the RDAs are extrapolations from infant data and/or adult values. Energy and nutrient allowances for pregnancy are additive to those for the nonpregnant female.

In estimating nutrient needs, there is evidence that protective and unexplained mechanisms are involved in regulating both energy stores and plasma levels of most nutrients during pregnancy. According to Hytten,[11] the mechanisms are unknown and are not explained on the basis of dietary deficiencies or malabsorption, e.g., the fetus may be protected from vagaries associated with maternal diet except in extreme malnutrition. However, if a diet inadequate in calories and other nutrients is supplemented, the result is bigger infants and thus reduction of the incidence of low birth-weight infants.

Prepregnancy Weight and Gain During Pregnancy

Low maternal weight gain during pregnancy correlates with a higher incidence of low birth-weight infants and higher mortality rates among neonates born to teenagers.[12] In a study of the relationship between weight gain and perinatal mortality, the optimal weight gain for an overweight mother was about half that for a very thin mother.[13] A total weight gain of 24 pounds is essential to adequate fetal development[9] with a recommended weight gain of about 20 pounds occurring in the last half of pregnancy.[12]

Adolescents may diet in order to minimize the obligatory gain associated with the increasing maternal and fetal weight gain of pregnancy. Restrictive calorie intakes may result in ketonemia with subsequent ketosis, a condition ill-tolerated by the fetus and which may result in impaired neurological development.[12] Emphasis should be placed on the value of a good diet during pregnancy and the modification of food choices to contribute to better health postnatally.

For the pregnant teenager who is physically immature or is underweight, the rate and total amount of weight gain is greater than for the more mature female and energy costs are additive to those of pregnancy. In a controlled study, Blackburn and Calloway compared energy intake and expenditure of pregnant and nonpregnant girls. They estimated expenditures of sedentary pregnant adolescents as about 2300 Kcal/day.[14]

In a review of reported energy intakes of pregnant women in the United States, Australia and the Soviet Union, it was found that (1) energy intake was frequently less than recommended, and (2) energy intake tended to remain constant throughout gestation.[15]

Comparing these findings to data from the Health and Nutrition Examination Survey (HANES) for United States teenagers shows similar results.[16] Females ages 12-14 consumed about 1,900 Kcal/day and ages 15-17 consumed about 1,750 Kcal/day. An addition of 300 Kcal/day for pregnancy to the usual energy intake of 1,750 results in 2,050 Kcal/day. This is far below the recommended energy allowances of 2,700 Kcal/day for pregnant girls ages 11-14 and 2,400 Kcal/day for ages 15-18.[9] If energy intakes tend to remain constant throughout pregnancy, a low initial intake provides inadequate calories for fetal and maternal needs. Early evaluation of prepregnancy weight and calorie balance are essential factors of a nutritional assessment.

Dietary Deficiencies

The most frequently reported deficiencies are calcium, iron and vitamin A,[17] as well as folacin, riboflavin (B_2) and pyridoxine (B_6) in some groups. Most of the calcium consumed during pregnancy is accumulated in the fetus. During pregnancy, iron, vitamin A and folacin are essential for hematopoiesis. In addition, tissue synthesis requires energy and vitamins B_2 and B_6.

Recent surveys indicate that girls ages 12-14 years consume on the average about 75 percent of RDAs for calcium and older teens ages 15-17 about 66 percent. A daily intake of 1200-1600 mg/day of calcium is recommended.[9]

Iron and folacin supplementations have changed very little in the past decade. The increased requirements for iron during pregnancy cannot be met by the iron content of diets eaten by most teenagers. Thus, 30-60 mg/day of elemental iron and 300-500 mg/day of folacin are usually prescribed.

Inadequate dietary protein is uncommon unless the diet is also inadequate in calories and other nutrients. Many of the fast foods consumed by adolescents are relatively high in protein. An analysis of four fast-food meals for protein, vitamins A and C and iron indicated the following: 16-43 g of protein, 21-725 I.U. vitamin A, 12-29 mg vitamin C, and 3-7 mg iron.[18] A fast-food meal could provide over one-half of the protein allowance. Allowances for pregnancy should equal the nonpregnant allowances plus 30 g/day, which is about 75 g/protein/day

Vegetarianism

Teenage vegetarians may be at a risk for deficiencies of intake for energy, protein, iron and vitamins D, B_2, B_{12}. In addition, calcium, zinc, magnesium and iodine may be inadequate for the increased needs of pregnancy.[19] It is reported that naturally occurring phytates and oxalates found in cereals, fruits and vegetables bind iron, zinc and chromium and reduce the bioavailability;[20] however, this is a controversial issue and many studies are in progress.

These pregnant adolescents may be especially susceptible to zinc deficiencies because of maternal and fetal needs. Studies in human and experimental animals indicate that abnormal labor and difficult childbirth were associated with lower levels of plasma zinc.[21] The rapid pre-menses growth spurt and sexual maturation increases zinc requirements[22] and are in part responsible for subsequent development of zinc deficiencies during pregnancy.

Conclusions

The incidence of teenage pregnancies is increasing. The major risks of these pregnancies are low birth-weight infants and pre-eclampsia and their related problems. To reduce these risks, emphasis should be placed on providing optimal energy and nutrient intakes to promote adequate material weight gain and fetal development. Known dietary deficiencies should receive special emphasis in counseling the pregnant adolescent.

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Reprinted from Contemporary Nutrition, General Mills, Inc., October, 1980, Volume 5, Number 10.

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and (3) total abstinence.

The Conference will include formal speeches, panels, and discussion groups. Appearing on the program will be such well-known speakers as: Father Joseph Martin, USA; Vernon E. Johnson, D.C., USA; Professor Michael Beaubrun, West Indies; Doctor Vladimir Hudolin, Yugoslavia; Professor Linford Rees, U.K.; and many others.

Attendance to the conference will be limited to 500. For those who wish to attend contact Ms. Barbara Turner, Conference Coordinator, Charter Medical Corporation, Addictive Disease Division, 5780 Peachtree Dunwoody Road, N.E., Suite 170, Atlanta, Georgia 30342; telephone: 404/257-9333.

The World Conference on Alcoholism is sponsored by The Charter Medical Corporation and the International Council of Alcoholism and Addictions. Conway Hunter, Jr., M.D., is conference chairman.

American College of Surgeons

The 67th annual Clinical Congress of the American College of Surgeons, the largest convention of surgeons in the world, will be held in San Francisco, October 11–16, 1981.

The first grand tour to China

The Pennsylvania Medical Society announces the first officially sponsored Tour to the People's Republic of China. Departure date is October 15 and the return date is November 1.

For descriptive tour brochure: Tour Hosts, Worldwide, Official Tour Operations, 331 Madison Avenue, New York, N.Y. 10017; telephone: 212-687-3903.

American Academy of Allergy

The American Academy of Allergy will hold a regional continuing medical education meeting in the southeast area October 30 and 31.

"Allergy and Immunology for the Clinician" will be held at the Hyatt on Hilton Head Island, South Carolina. This is a clinical course for pediatricians, internists, and family practitioners with interest in allergy. Category I credit for 14 hours.

For complete information: A. J. Kimber, American Academy of Allergy, 611 East Wells Street, Milwaukee, Wisconsin 53202; telephone: 414-272-6071.

Marriage and divorce counseling workshop

A workshop on "Marriage and Divorce Counseling" has been scheduled December 11th through 13th, at the Hilton, Rye, New York. This program has been reviewed and is acceptable for 13 elective credit hours by the A.A.F.P.

First world conference of hysteroscopy

The first world conference of "Hysteroscopy" will be held January 3 to 6, at the Fontainebleau Hilton, Miami Beach, Florida.

For information: Jordan M. Phillips, M.D., Chairman of the Board, 11239 S. Lakewood Boulevard, Downey, California 90241, U.S.A.; telephone: 213-862-8181.

Pediatric dermatology seminar IX

The 9th annual pediatric dermatology seminar will convene at the new Carillon Beach Hotel, Miami Beach, Florida, February 25th–28th, 1982.

A two week post-seminar tour to East Africa is planned. Nairobi, Kenya, Lake Victoria, renowned game reserves, and safaris are on the itinerary.

For information contact: Guinter Kahn, M.D., (telephone: 305/652-8600), 16800 NW 2 Ave., Miami, Florida 33169.

International conference on occupational lung disease

The International Conference on Occupational Lung Disease will be held at the Hyatt Regency Chicago, in Chicago, Illinois, March 24–27, 1982. Submission of abstracts on occupational lung disease and related subjects are invited by the Program Committee for presentation at this medical meeting.

This four-day conference will feature a series of special lectures and panels discussing the important aspects of occupational lung disease. The balance of the program will be chosen from scientific studies which are invited on aspects of occupational lung disease including particle deposition, organ and cellular pathology, epidemiology, and preventive medicine.

Investigations from outside the United States are welcome, but abstracts and presentations must be in English. Presentations will be limited to ten minutes with five minutes for discussion.

Abstracts should not exceed 600 words in length and should not contain more than two tables, figures, or a combination of both. Copy should be double-spaced, with an original and four copies submitted. Please include title of paper, full first and last names of authors, institution where work was performed, and full address where correspondence should be directed. Also identify the individual who will present the paper. Deadline for submission of abstracts is September 1, 1981.

This conference is sponsored by the American College of Chest Physicians. Course directors are J. Bernard L. Gee, M.D., F.C.C.P., chairman, and Stuart M. Brooks, M.D., F.C.C.P., and W. Keith C. Morgan, M.D., F.C.C.P., co-chairmen.

Abstracts should be mailed to: Scientific Program Committee, International Conference on Occupational Lung Disease, American College of Chest Physicians, 911 Busse Highway, Park Ridge, IL 60068.

Prevention and detection of cancer

"Prevention and Detection of Cancer," V International Symposium, will be held at Sao Paulo, May 16 to 20.

Continuing medical education credits have been arranged for United States participants.

Participants from all countries, (except South American) should write for further information to: V International Symposium on Preventive Oncology, 1212 Avenue of the Americas, New York, N.Y. 10036; telephone: 212-840-0110; telex no. 423906 DON UI.

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Awarded: Edward E. Fischel, M.D., was awarded the plaque for "distinguished service" to the New York Academy of Medicine at the Academy's annual dinner in April . . . Lee Kaplan, a 1981 candidate for an M.D.-Ph.D., was the fourth recipient of the American Medical Association-Education and Research Foundation Jerry L. Pettis Memorial Scholarship . . . Karl Meyer, M.D., Ph.D., pioneer in the field of biochemistry of the connective tissue, was the recipient of the highest award of the New York Academy of Medicine, the Academy Medal, which is given annually for an "outstanding contribution related to medicine"; second place in the Young Investigator's Awards Competition of the American College of Cardiology was James P. Morgan, M.D., Ph.D., Rochester.

Elected: New Fellows of the American College of Physicians from the New York area are: Henry Safier, M.D., Forest Hills; Donald Margouleff, M.D., Manhasset; and Frank J. Forte, M.D., and Jeffrey G. Rothman, M.D., Staten Island . . . John K. Lattimer, M.D., Sc.D., professor emeritus of urology, Columbia University College of Physicians and Surgeons, elected president of the American Association of Genito-Urinary Surgeons . . . Jerome Zwanger, M.D., Massapequa, has been elected president of the Nassau County Medical Society . . . among the new officers elected by the American College of Physicians in April is: Julius Stolfi, M.D., F.A.C.P., vice president for hospital affairs and associate dean of clinical affairs, Downstate Medical Center, Brooklyn, reelected as *secretary-general* . . . G. Everett Gaillard, M.D., White Plains, was elected first vice president of the American College of Allergists at the 37th annual congress.

Promoted: Theodore W. AvRuskin, M.D., to professor of pediatrics, Ismail Parsa, M.D., to professor of pathology, Jack O. Haller, M.D., to professor of clinical radiology, Iris Fletcher Norstrand, M.D., and Walter R. Slade, Jr., M.D., to clinical professors of neurology, Richard J. Macchia, M.D., to associate professor of urology, Julius Buchwald, M.D., to clinical associate professor of psychiatry, Irwin Kanarek, M.D., to clinical associate professor of ophthalmology, Nauttam J. Kothari, M.D., and Charlotte Nadel, M.D., to clinical associate professors of psychiatry, Jerome Tepperberg, M.D., to clinical associate professor of neurology, and Sophie S. Turner, M.B.B.S., to clinical associate professor of radiation oncology—at Downstate Medical Center.

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Annotations of Books Received*

INTERNAL MEDICINE

Harrison's Principles of Internal Medicine. 9th edition. Update I. Edited by Kurt J. Isselbacher, A.B., M.D., and others. New York, McGraw-Hill Book Company, 1981. Illustrated, 263 pages, with CME Examination Questions. Hardcover, $

Harrison's Principles of Internal Medicine, updating between editions.

PERINATOLOGY

Advances in Perinatal Medicine. Volume 1. Edited by Aubrey Milunsky, M.B.B.Ch., Emanuel A. Friedman, M.D., and Louis Gluck, M.D. New York, Plenum Book Company, 1981. Illustrated, 438 pages. Cloth, $35.

A new series in perinatal medicine, to serve as a catalyst and critical forum for those interested in optimal pregnancy outcome.

NUTRITION

Advances in Nutritional Research. Volume 3. Edited by Harold H. Draper. New York, Plenum Press, 1980. Illustrated, 362 pages. Cloth, $32.50.

Reviews on the current state of knowledge in nutritional research.

PHYSICAL FITNESS

Ergometry: Basics of Medical Exercise Testing. Edited by Harald Mellerowicz (and) Vojin N. Smodlaka. Translated from the German by Allan L. Rice. Baltimore, Md., Urban & Schwarzenberg, 1981. Illustrated, 420 pages. Hardcover, $49.

An updated translation of the 1962 German edition, compiled to provide a comprehensive presentation of current knowledge in the new field of ergometry.

IMMUNITY

Immunodermatology. Edited by Bijan Safai, M.D., and Robert A. Good, Ph.D., M.D. (Volume 7 of the Comprehensive Immunology Series.) New York, Plenum Medical Book Company, 1981. Illustrated, 717 pages. Hardcover, $49.50.

A state of the art review of immunodermatology, including basic-scientific, clinical, and historical aspects, as well as recent studies by authorities in the field.

THROMBOSIS

Prevention of Venous Thrombosis and Pulmonary Embolism. By J. G. Sharnoff, M.D. Lancaster, England, MTP Press Limited, 1980. Cloth, 135 pages. Price, £8.95. (Published in the U.S. by G. K. Hall & Co., Boston, Mass.

Ways to reduce thrombosis and embolism associated mortality in surgical and medical hospitalized patients.

ECONOMICS, MEDICAL

The Incidence and Economic Costs of Major Health Impairments. By Nelson S. Hartunian, Charles N. Smart, and Mark S. Thompson. Lexington, Mass., D. C. Heath and Company, 1981. (An Insurance Institute for Highway Safety Book.) Illustrated, 420 pages. Hardcover, $34.95.

A comparative analysis of economic costs associated with cancer, motor vehicle injuries, coronary heart disease, and stroke.

LANGUAGE THERAPY

Language Intervention Strategies in Adult Aphasia. Edited by Roberta Chapey, Ed.D. Baltimore, Williams & Wilkins, 1981. Illustrated, 383 pages. Cloth, $32.

A comprehensive critical review of major approaches to treating language impairments of adult aphasics.

NEUROSURGERY

Clinical Neurosurgery. Volume 27. Baltimore, Williams & Wilkins, 1980. Illustrated, 648 pages. Cloth, $44.

Proceedings of The Congress of Neurological Surgeons, Las Vegas, Nev., 1978, dedicated to Dr. Frank H. Mayfield.

NYSTATIN

The Fungus Fighters: Two Women Scientists and Their Discovery. By Richard S. Baldwin. Ithaca, N.Y., Cornell University Press, 1981. Illustrated, 212 pages. Hardcover, $14.95.

The story of the discovery of the first antifungal antibiotic, and the heartening cooperation on the part of two remarkable women that brought this success about.

PATHOLOGY

Core Pathology: Fundamental Concepts and Principles. By Chandler Smith, M.D. Oradell, N.J., Medical Economics Company, Book Division, 1981. Illustrated, 443 pages. Hardcover, $39.50.

Following the teaching principles of the author, "sequential-incremental education," this work imparts knowledge by progressive steps; a text for the student; a reference for the practicing physician.

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* Books received for review are acknowledged promptly in this column. No other obligation is assumed for the courtesy of those sending them for this purpose. Selection for review is made on the basis of merit and reader interest.

Market factors affecting practice of medicine

There is a growing body of evidence that market place forces were operating in the physician services market in the 1970s, and that the trend will increase substantially in the 1980s.

This means that, with the steady increase in numbers of physicians, more physicians are moving into areas that have had few or no physicians for years. And it means that physicians' real income after inflation, taxes, and practice expenses showed a decline between 1970 and 1980.

This is the conclusion of a report in the June 5 Journal of the American Medical Association.

The June 5 JAMA is the annual review of the developments in health care, CONTEMPO.

Writes Harriet S. Myer, M.D., editor of CONTEMPO: "If computed tomography was the advance of the decade in the 1970s, monoclonal antibodies are the advance of the year. Their promise in cancer detection, disease therapy, and disease research are cited" in the special JAMA issue.

The conclusion that the increasing supply of physicians is curbing physicians' earnings and forcing them to seek out small town and rural areas which in the past were considered less desirable practice situations is reached in a report on "The Changing Structure of Medical Group Practice in the United States, 1969 to 1980."

The conclusion is directly opposed to "a widely held but little tested position that physicians, because of their ability to induce demand for their services to reach a targeted income, are not influenced by economic market pressures," the report declares.

Larry L. Freshnock, Ph.D., assistant to the division director of the AMA's Center for Health Services Research and Development, and Lynn E. Jensen, Ph.D., director of the division, present data from AMA surveys made in 1965, 1969, 1975, and 1980 on the growth of group practice in American medicine.

Medical practice groups have grown from 6,371 in 1969 to 10,762 in 1980. Total number of physicians now practicing in groups rose from 40,093 in 1969 to 88,290 in 1980.

The traditional partnership arrangement under which physicians joined their practices for years has given way to the professional corporation. More than 70 percent of the groups are now incorporated.

The data is excerpted from a new AMA book, MEDICAL GROUP PRACTICE IN THE U.S., 1980, to be published on September 1.

CONTEMPO also contains survey reports on a wide variety of medical areas, including microsurgery, the laser, computerized radiological scanning, interferon, new drugs, and others.

An important development of the past year is discussed by Robert Veatch, Ph.D., in an article on medical ethics. It is the adoption of the newly revised AMA Principles of Medical Ethics by the AMA House of Delegates at the 1980 annual meeting. The new principles appear alongside Dr. Veatch's commentary.

The articles are for the most part written by members of the JAMA editorial board, a battery of specialists in all of the many major areas of medicine and surgery.

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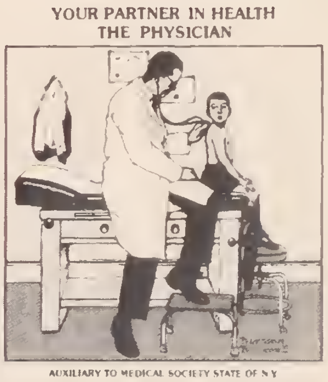
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NEW YORK STATE **AUGUST 1981**

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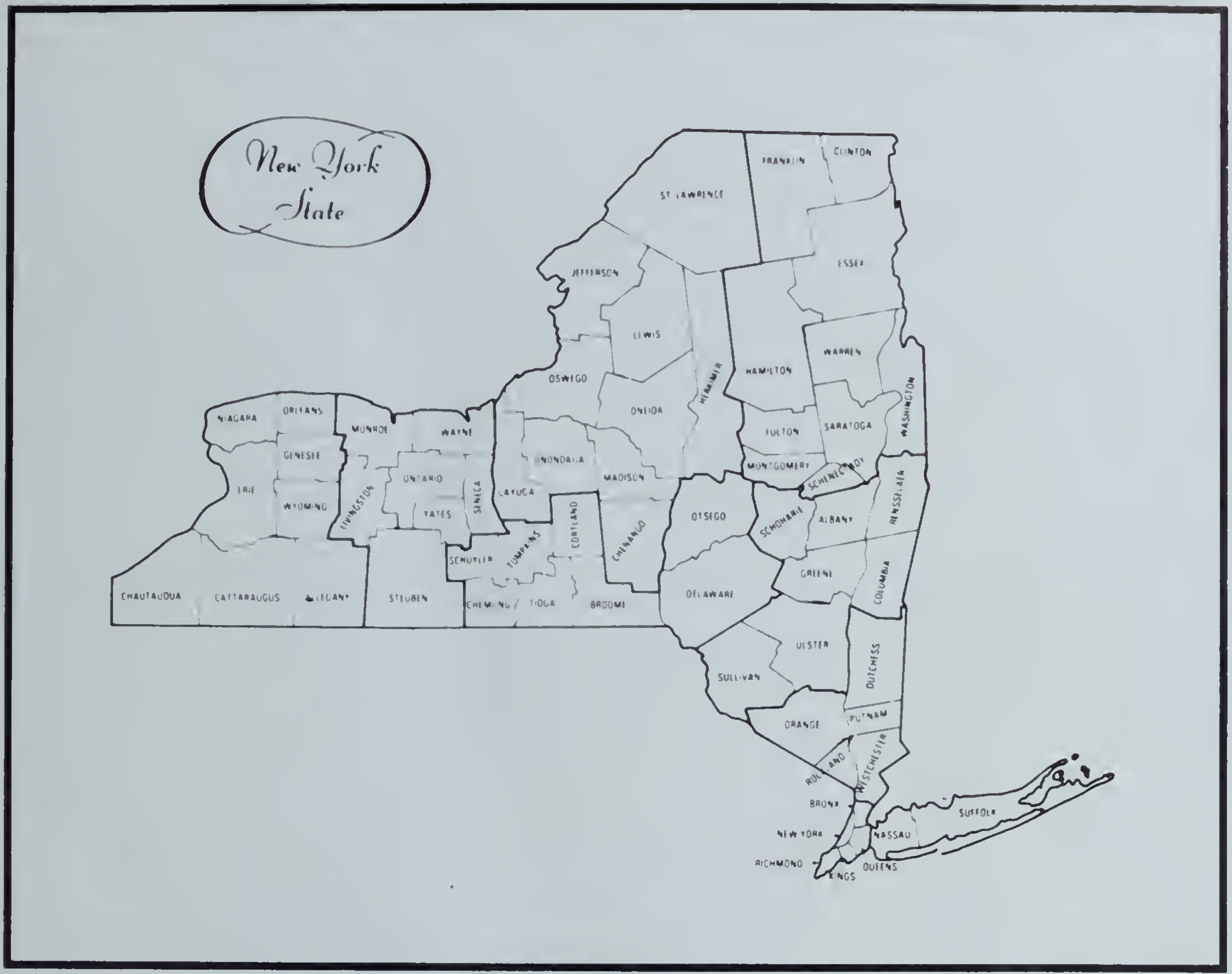

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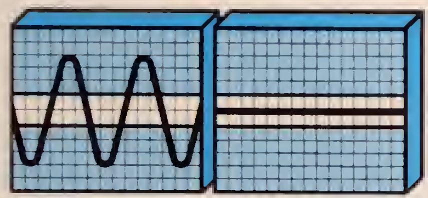

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Month in Washington

The Reagan Administration has won hands-down its five month budget campaign in the Congress. Some mop-up operations with an occasional skirmish here and there is all that remains in carrying out the President's promise to reduce federal spending.

The budget reconciliation triumph in the Democratically-controlled House of a bill backed by the Administration nailed down a successful outcome in Congress for the President's economy program to reduce federal expenditures next fiscal year by more than $38 billion. The 217–211 vote also made clear that the House is controlled effectively on major issues by a coalition of Republicans and conservative Democrats. The major impact on health will be a $1 billion slash in federal Medicaid outlays and a $1 billion cut in spending in 26 categorical grant health programs.

The only setback in the House was the decision not to press for a vote on a Republican substitute plan for the budget package approved by the Democrats on the House Commerce Committee. Although the Democratic plan met the health budget targets set by the Administration, it took a different road and did not remove some of the programs the Administration wants to phase-out such as PSROs (Professional Standards Review Organizations) and Health Planning.

The substitute plan prepared by Representative James Broyhill (R., N.C.), ranking Republican on the Commerce Committee, would have ended these programs and hewed strictly to the Administration's original block grant and Medicaid proposals.

The health budget measures weren't included in the overall successful budget proposal authored by Representatives Phil Gramm (D., Texas) and Delbert Latta (R., Ohio) because the Republicans on the Commerce Committee had been assured earlier by the Democratic leadership that they would have an opportunity on the House floor to seek a vote on their plan, since the Commerce Committee had deadlocked 21 to 21 on the Democratic plan.

With 29 Democrats breaking ranks, the Gramm-Latta measure prevailed by a six-vote margin over the budget bill prepared by the House committees with the exception of the set-aside Commerce Committee bill.

Broyhill decided apparently that there was danger of losing a handful of votes (only a switch of four votes would be fatal) and announced that he was withdrawing his substitute. He told the House that Commerce Committee Chairman John Dingell (D., Mi.) promised that "he wants to work with us to resolve whatever differences that we have between our versions as we go into conferences."

The Senate has concluded hearings on the emotion-laden issue of when human life begins.

The American Medical Association opposed the legislation that declares human life shall be deemed to exist from conception.

Prepared by the Washington, D.C., office of the American Medical Association.

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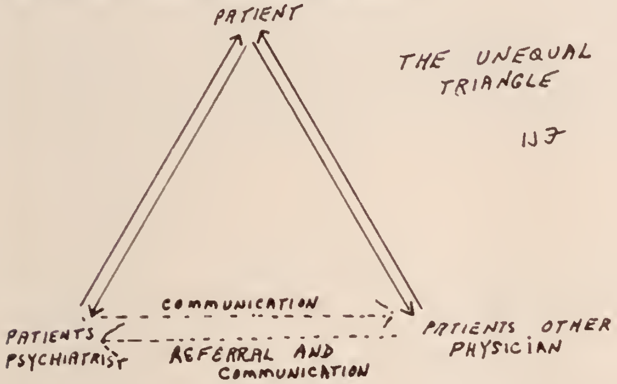
Letters to the Editor

Psychiatry and relationship with other branches of medicine



To the Editor: The above diagram depicts a serious problem. Psychiatry has never had an adequate relationship with other branches of medicine and psychiatrists have never enjoyed a respected association with other physicians. In the past 50 years, there have been numerous attempts to explain this. I believe the more recent intense focus on the value of drugs as the most effective therapy for a number of major psychiatric disorders has fueled the problem. Thus, the effective push by pharmaceutical companies stressing drug therapy as the treatment of choice in depressions and schizophrenias, with support by psychiatrists, has resulted in more and more physicians in all disciplines viewing the psychiatrists role as a very confined one.* (For example, diagnose and prescribe the proper medication). Understanding and communicating with the patient seems less important.

But understanding and communication between the psychiatrist and the other physician suffers the same fate. Indeed, prior to the advent of the neuroleptic drugs, the value of understanding and interpreting was a hallmark of the psychiatrist. What has not changed though, either before or since this "drug revolution," is the failure of the psychiatrist and the patient's other physician(s) to communicate with one another and the failure of the patient's physicians to refer the patient to a psychiatrist when such is needed. I strongly believe that this is a disservice to the patient.

* In talking with medical students about their lack of interest in psychiatry as a field of specialization, several have said that it seems to be essentially "pharmacology" and not "medicine."

IRVING J. FARBER, M.D.
144-30 Coolidge Avenue
Jamaica, N.Y. 11435

Vasovagal (vasodepressor) syncope following rectal examination

To the Editor: Rectal examinations are avoided during acute coronary illness because of the possibility of vasovagal reactions including syncope and cardiac arrest and such restrictions have been incorporated into coronary care units' protocols across the nation. Less recognized, however, is the relationship between psychological stress and vasovagal reactions as described in the following case.

R. K., a 24-year-old white male, was seen for the first time in my office on April 1st, 1981, complaining of recurrent and persistent urethral discharge which appears somewhat purulent in nature of a few weeks' duration. He admits living together with his girl friend and was very upset and frightened of the possibility of gonorrhea or other veneral diseases. The physical examination was essentially negative. His blood pressure was 122/75, pulse regular 70 beats per minute, and no audible murmur.

At the time of the first visit there was no visible urethral discharge, even though he tried to demonstrate it to me. No ulcers were present on the penis or adjacent area. The patient declined a rectal examination. He asked numerous questions regarding the threat of infection from sexually transmitted diseases and required repeated reassurances from me. I treated him with ampicillin, 3.5 million units, and probenecid (Benemid), 1.0 Gm., for two days. A VDRL test was reported as negative and urethral smear and culture as "rare epithelial cells and no evidence of gonorrhea."

On April 10th, 1981, he was reexamined because of dysuria and frequency of urination. The physical examination was negative again, and he was referred for urine analysis, culture, and sensitivity. The results of these tests were within normal limits. Because of persistent complaints, he was treated with 250 mg. of ampicillin four times a day for 10 days. Following these treatments, the patient improved and reported no more complaints until 17 days later when he called and stated that his girl friend had a vaginal discharge. I advised him to repeat the urethral smear and culture, and referred his girl friend for a full gynecological examination. In due time I received reports that there was evidence of trichomoniasis. His girl friend received local treatment from her gynecologist, and I prescribed metronidazole (Flagyl) for both of them.

The patient presented to the office again on May 13th, 1981, stating that he still has some urethral discharge, though decreased in amount, and I reviewed the treatment up to the present time. Both he and his girl friend were treated concurrently. He again expressed his concern about sexually transmitted diseases. The physical examination was negative again. However, at this time I again asked the patient to allow the performance of a rectal examination in order to rule out prostatitis. This time the patient reluctantly agreed, and I proceeded with the examination. I noted that the rectal sphincter was quite spastic, and after appropriate reassurance and minimal pressure, I performed the rectal examination. The prostate was not enlarged. The duration of the rectal examination which included overcoming the rectal sphincter spasm was quite brief, probably no more than five to seven seconds. Immediately on the completion of the examination I could see that the patient was not well. He was pale and literally broke out into a cold sweat. I asked him how he felt and he stated that he was weak and dizzy. I immediately laid him down on the examination table and the patient lost consciousness for a period of approximately ten seconds. There were no palpable pulses and no spontaneous respirations were noted. However, without any assistance from me, he came out of it. All of these events developed quite quickly, and in my judgment if I had not had the foresight to have laid him down, I probably would have had to use resuscitative measures. On careful inquiry he acknowledged that he had never had a rectal examination and that he was quite concerned about it and was afraid of the possibility of sexually transmitted diseases. After a few minutes, he felt better and refused my offer to take an electrocardiogram. I advised the patient not to have any rectal examinations done unless absolutely necessary and to always notify the examining physician about his problem which might better be conducted in an emergency room setting.

It is well known that vasodepressor (vasovagal) syncope occurs quite often and might be enhanced by psychological stress.[1,2] However, in 26 years of medical practice I have never encountered quite a similar situation where the psychological stress factor was so easily evident before the rectal examination and where there was associated rectal sphincter spasm which had to be overcome digitally. The importance of recognizing the role of psychological stress prior to rectal examination cannot be over emphasized. Possibly one helpful hint is the existence of anxiety or fears associated with the actual examination without the existence of rectal disease. The presence of rectal sphincter spasm which needs to be overcome digitally possibly could be another indication that a vasovagal reaction might be likely to follow. Proper reassurance by the examining physician, as well as weighing carefully the benefits of such examinations, are helpful.

It is the common responsibility of practicing physicians and medical educators to recognize the evolving relationship between psychological stress and vasovagal (vasodepressor) reactions and to facilitate their recognition.

REUBEN TIZES, M.D.
SIMONE M. TIZES
59 Piermont Road
Hewlett, N.Y. 11557

References

1. Tizes, R.: Cardiac arrest following routine venipuncture, J.A.M.A. 236: 1846 (1976).
2. Engel, G. L.: Psychologic stress, vasodepressor (vasovagal) syncope and sudden death, Ann. Int. Med. 88: 403 (Sept.) 1978.

Electrocardiogram of the month

To the Editor: The electrocardiogram of the month section in the Journal is one of my favorite features.

I would like to comment on Question and Answer 316, page 927 and 928, May, 1981. The stress test indicating a work load of 2.0 miles per hour at 10 percent grade for 9 minutes amounts to about 5 beats of activity. This is first degree heart block in the electrocardiogram due to Inderal or digitalis. This is reflected in the resting heart rate of 56, and only 84 ventricular rate after 9 minutes of activity. The large ST segment depression (2 to 3 mm.) makes me suspicious of digitalis intake, even though the fact was not mentioned. Was the patient taking digitalis which would make the test inconsequential?

The last sentence in the answer is not entirely accurate. It states that a patient with a history characteristic of angina usually has a positive stress test. We have many patients who describe typical symptoms of angina and are either negative through Stage IV (Bruce protocol) or are positive in Stage IV, and these patients should be able to perform a great deal of work. In my view, the stress test determines the severity of the angina.

This note is not a criticism of the feature or of the answer, but my experience has been different.

LOUIS PELNER, M.D.
161 Rugby Road
Brooklyn, N.Y. 11226

Authors' reply

To the Editor: We appreciate Dr. Pelner's letter and his interesting suggestions.

A P-R interval of 0.21 second in a 66-year-old male with a ventricular rate of 56 per minute is borderline.

The patient was not receiving digitalis. However, Dr. Pelner is correct. Digitalis effect may distort the electrocardiogram exercise test.

Many studies have demonstrated that 20 to 30 percent of patients with severe coronary disease have negative stress tests. However, the remainder will be positive.

IRA L. RUBIN, M.D.
JULIAN FRIEDEN, M.D.
Montefiore Hospital and Medical Center
111 East 210th Street
The Bronx, N.Y. 10467

Journal covers

To the Editor: As a former artist, I have enjoyed and appreciated the covers of the New York State Journal of Medicine, and applaud your taste in selecting these. I equally bemoan the fact that the mailing stickers are insensitively applied to the front cover, so that the covers are ruined for any esthetic purpose. Many magazines put addresses on the back cover or use mailing jackets; I would like to suggest you do the same.

Unfortunately I will be unable to collect the new unmarred covers or read your magazine for the time being, as medical school has about wiped us out financially and I think it will take more than a year's internship before we recover.

MARGOT L. FASS, M.D.
281 Grosvenor Road
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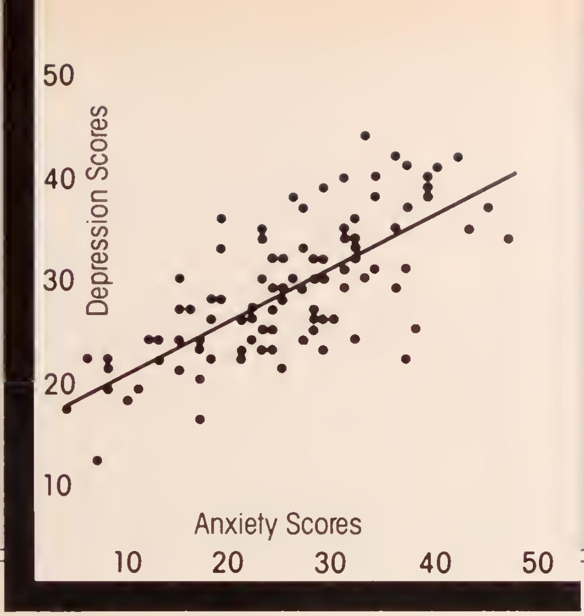
The graph illustrates the close correlation between depression and anxiety derived through the MMPI and the Taylor Manifest Anxiety Scales in 100 nonpsychotic psychiatric patients. The coefficient of correlation is 0.7. As depression increased, so did the anxiety levels.[1]



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References: 1. Clagharn J: *Psychosomatics 11* 438-441, Sept-Oct 1970 **2.** Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, edited by Jarvik ME New York, Appleton-Century-Crafts, 1977, p 316. **3.** Baldessarini RJ, Tarsy D: Tardive dyskinesia, in *Psychopharmacology: A Generation of Progress*, edited by Lipton MA, DiMascio A, Killam KF New York, Raven Press, 1978, p 999

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Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses Myocardial infarction and stroke reported with use of this class of drugs) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e g , operating machinery, driving).

> ***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide)

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients Periodic liver function tests and blood counts are recommended during prolonged treatment Amitriptyline component may block action of guanethidine or similar antihypertensives Concomitant use with other psychotropic drugs has not been evaluated sedative effects may be additive Discontinue several days before surgery Limit concomitant administration of ECT to essential treatment See Warnings for precautions about pregnancy Limbitrol should not be taken during the nursing period. Not recommended in children under 12

In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects

Adverse Reactions: Most frequently reported are those associated with either component alone drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs

Cardiovascular Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke

Psychiatric Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido

Neurologic Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns

Anticholinergic Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract

Allergic Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus

Hematologic Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia

Gastrointestinal Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels

Other Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling

Overdosage: Immediately hospitalize patient suspected of having taken an overdose Treatment is symptomatic and supportive I V administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning See complete product information for manifestation and treatment

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained Larger portion of daily dose may be taken at bedtime Single *h s* dose may suffice for some patients Lower dosages are recommended for the elderly

Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required Limbitrol 5-12 5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses

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Abstracts

Kanke, Y., Bashey, R. I., and Mori, Y.: Biochemistry of glycosaminoglycans; present knowledge, **New York State J. Med.** 81: 1322 (Aug.) 1981.

Glycosaminoglycans (GAGs), formerly called mucopolysaccharides, are compounds within the ground substance of connective tissue. Their structure and distribution in body tissues are described and their biosynthetic and degradative processes discussed. The mucopolysaccharidoses, a group of inherited diseases resulting from GAG storage disorders, are presented.

Feng, C. S.: Laboratory tests in diabetes mellitus, **New York State J. Med.** 81: 1328 (Aug.) 1981.

Laboratory tests used in diabetes mellitus—blood glucose, oral glucose tolerance test, urine glucose, and glycohemoglobin—are discussed. The importance of the clinical consideration and the proper collection of laboratory specimens leading to proper interpretation of results is illustrated. Better understanding of the mechanisms and limitations of laboratory tests will aid clinicians in providing quality patient care. In the author's opinion, laboratory medicine is direct patient care.

Brandman, J. R., Ruckdeschel, J. C., O'Donnell, M. R., and Horton, J.: Small cell cancer of lung; rapid tumor necrosis leading to serious pulmonary infections after intensive chemotherapy, **New York State J. Med.** 81: 1332 (Aug.) 1981.

Aggressive remission-induction chemotherapy of small cell cancer of the lung has inevitably been accompanied by frequent side-effects. Two patients on high-dose CMV (cyclophosphamide, methyl CCNU, and vincristine sulfate) developed serious pulmonary infections at the site of tumor within two months of the start of treatment. Patient 1 had a lung abscess which developed at the site of necrotic tumor, proved at autopsy. Patient 2 had an empyema which stabilized after tube drainage and antibiotics. Cultures grew typical oral aerobic and anaerobic flora. Neither patient was alcoholic nor possessed factors predisposing to aspiration. Rapid tumor necrosis in conjunction with profound leukopenia may lead to infection that becomes apparent only when the white blood cell count returns to normal.

Bapat, A. N., Malik, A., Delano, B. G., Stein, R. A., and Krasnow, N.: Mitral annular abscess; echocardiographic detection, **New York State J. Med.** 81: 1335 (Aug.) 1981.

A new echocardiographic finding suggesting abscess of the mitral ring was observed in three patients with chronic renal failure and staphylococcal endocarditis. The annulus showed soft, fuzzy ultrasonic densities which changed

continued on page 1313

continued from page 1312

with the clinical condition and was associated with a flail posterior leaflet in each case.

Albukerk, J.: Hepatocellular carcinoma in young adults, **New York State J. Med. 81:** 1341 (Aug.) 1981.

In the United States, HCC (hepatocellular carcinoma) is a rarely encountered neoplasm among young adults. In a two-year period three patients, 16, 17, and 19 years in age, were diagnosed. Hepatic angiography and liver biopsy were particularly helpful in confirming the diagnosis of HCC. In the first case, subclinical chronic hepatitis associated with postnecrotic cirrhosis, and in the second case, chronic alcoholism were the causes. The third case, which exhibited all the characteristics of polygonal cell type, a unique variety of HCC, disclosed no apparent etiologic findings.

Flanagan, T. D., and Deibel, R.: Central nervous system infections; etiologic and epidemiologic observations in New York State, 1978 to 1979, **New York State J. Med. 81:** 1346 (Aug.) 1981.

The viral etiology of central nervous system infection was investigated in 1,425 patients in New York State exclusive of New York City during 1978 to 1979. Diagnostic findings were obtained in 450 of these patients. Enteroviruses continued to be the most common neuropathogenic agents. An unusual number of unidentified enterovirus-like viruses were observed in children and young adults. Herpes simplex virus and California encephalitis virus were the most frequently encountered nonenteroviruses. Respiratory syncytial virus was indicated in a fatal case of Reye's syndrome. Evidence for the potential of influenza A/USSR/77 to be associated with Reye's syndrome is presented. Measles virus was less often encountered than in previous years, which is consistent with the overall decrease in measles morbidity in the State and the nation.

Correction

The Journal regrets that the title of the lead editorial on page 1172, reprinted from the New England Journal of Medicine, **304:** 602 (Mar. 5) 1981, was incorrectly typed. The proper title is:
"**Medical** education and the Regents of the State of New York; are the *last* two years of medical school really necessary?"

NOTICE: Index No. 13205/81

SUPREME COURT OF THE STATE OF NEW YORK
COUNTY OF NEW YORK

In the Matter of the Application of
EPHRAIM KATZ, LEONARD SCHULMAN, EDMUND HURDLE, DANIEL DEUTSCH, EUGENE BECKER and ELMER TWENTE,

Trustees of the Doctors Association Welfare Fund, for an order pursuant to Article 77, CPLR, providing for the dissolution of the Doctors Association Welfare Fund.

PLEASE TAKE NOTICE that the Trustees of the Doctors Association Welfare Fund have commenced a Court proceeding to dissolve the Doctors Association Welfare Fund and distribute its assets to the members of the Fund. The petition commencing the Court proceeding, the Plan of Dissolution and all other moving papers are available for inspection and copying at the offices of the Doctors Association Welfare Fund, 666 Third Avenue, Room 1660, New York, New York 10017. A copy of the Plan of Dissolution will be mailed to each beneficiary of the Doctors Association Welfare Fund at the last known address of such beneficiary filed with the Fund upon approval of the Plan by the Court.

Any person having objections to the Plan of Dissolution should appear to state those objections in the New York State Supreme Court, County of New York, Special Term, Part I, at the County Courthouse, 60 Centre Street, Room 130, New York, New York, on the 3rd day of August, 1981 at 9:30 A.M.

GORDON & SHECHTMAN, P.C.
Attorneys for Doctors Association Welfare Fund
666 Third Avenue, New York, New York 10017
(212) 661-7900

Dated: New York, New York, June 23, 1981

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New York State Journal of Medicine

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Editorials

Upswing of childhood tuberculosis

The American Lung Association's recent news release (May 13, 1981) reported a new study indicating that tuberculosis in children under 15 years has been increasing over the last four years in Brooklyn. These retrospective statistics were collected and analyzed by Laura S. Inselman, M.D., of the Jewish Hospital and Medical Center of Brooklyn.

Whereas the whole New York City rate varied from 3.8 to 8.1 cases per 100,000 between 1974 and 1980, the case rate varied from 20 to 40 cases per 100,000 population.

Nationwide, in 1979, new cases of tuberculosis in children under 5 years of age increased by 18 percent. Urban areas with overcrowding, poverty, and malnutrition continue to experience more cases of tuberculosis per capita than do rural areas.

The source of these infections in children has usually been cavitary lung disease in adults with whom they have been in close contact. It has been calculated by the centers for disease control that, on the average, each tuberculosis-diseased person is in close contact with 7 other persons of whom some 20 percent will become infected with the mycobacteria. In 1979, only 2.4 contacts per case were identified by investigation in New York City, and there was no documentation of the number of contacts who had completed the required one year of preventive isoniazed.

It is suspected that the recent increase in the alien population (that is, refugees from tuberculosis-endemic countries such as those in southeast Asia) will change the tuberculosis incidence in New York and other states. The high proportion of positive tuberculin skin tests in these foreign children and adults (albeit they must be cleared as "noninfectious" before receiving visas to the United States) indicates previous infection which must be closely monitored for pulmonary reactivation and communicability.

Reactivated cases have been increasing in New York City and may account for the increasing case rate in inner-city children who are generally more susceptible. These reactivations are often more difficult to treat because they tend to be more drug-resistant.

For many years, authorities in public health and pediatrics have not recommended routine tuberculin skin-test surveillance programs in school unless the expected rate of positive sensitivity exceeds 1 percent. Since this rarely occurs, few schools in the country have conducted periodic tuberculin testing programs during the last ten years.

In view of the Brooklyn report, it now seems prudent for these authorities to reconsider these guidelines and perhaps advise inner-city, high-risk communities to routinely perform skin tests on *all* entering and eighth grade school children at the beginning of each school year. The dictum is: the earlier the detection of tuberculin skin test "positives," the earlier will be the prevention and the better the containment of the disease.

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Malpractice and the American dream

The malpractice mania has been explained by lawyers, economists, and victimized physicians until there isn't much left to be said—or is there? Before I was the wife of a radiologist and the daughter-in-law of an internist, I taught social studies. Before today's physicians put on the short white coat of the medical student, they spent years in classes like those I taught. Those lessons of long ago, though mostly forgotten, are overdue for a dusting off in the light of malpractice litigation and the anguish suffered by medical families because of such litigation.

Lesson one. Americans have always looked for schemes to "get rich quick." If money could be made fast by hoodwinking the unsuspecting into buying cure-all tonics, magic beads, or the Brooklyn Bridge, sellers rushed forward. When gold was discovered at Sutter's millrace, and again in Alaska, the hoards of would-be miners and profiteering merchants rushed west to cash in. Today, in modern, regulated, bureaucratized America, "getting rich quick" is more difficult. New products must be tested for safety, proved effective, and advertised fairly. Employee benefit packages, Occupational Safety and Health Administration (OSHA) regulations, and Environmental Protection Agency (EPA) standards severely limit production profits.

But the lawsuit; now that's a different matter for the average American. He needs only one person to produce it—an attorney, who is a willing partner for reasons familiar to us all. In practically no time these partners can accrue huge sums of money. The nuisance malpractice suit has become the modern answer to the American dream of discovering gold, striking oil, in short, "getting rich quick."

Lesson two. Americans despise and resent taxation. If there is a convenient way to create a tax free fortune, they will opt for it every time. The Revolutionary War reflected this anathema to what was considered legalized government stealing. The North and South were disastrously polarized on the issue of the Protective Tariff. In the early 1900s Americans objected to the first (miniscule) income tax. They still resent inheritance taxes, excise taxes, land taxes, school taxes, and so on.

For the common man today, there is no way to avoid the curse of taxation on everything he buys, sells, inherits, or even wins—with one notable exception. Money won in the courts is tax free. It is sheltered forever from the tax collector. Is it any wonder, given the choice, that John Q. Public would rather sue his physician for a million dollars than to win the same million in a lottery? Even figuring in the contingency fee, malpractice awards fulfill the American dream: earnings that are tax free.

Lesson three. Modern Americans value security and the avoidance of risk. The decades since the Great Depression have shown a steady trend toward increased government involvement, protection, and, some might argue, interference in the risks assumed by the average American. Government is expected to insure the individual against the misfortunes of poverty, discrimination, unemployment, physical and mental handicaps, and the miseries of old age. Government is blamed for everything, from not enough disaster relief to not adequately providing us with health, education, energy, full employment, and a totally safe work environment.

Into this social fabric is introduced the malpractice suit. The contingency fee has made it the perfect tool for the security minded investor who dislikes risks. Heads he wins and divides his "profits"; tails his lawyer absorbs the major risks of loss.

Lesson four. Americans think the little guy is the good guy. Our best heroes come from humble beginnings. Our popular politicians stand against giants, such as: the military-industrial complex, Agri-Business, the oil companies, or, ironically, big government. We Americans grow misty over small towns and yesterday's simple life. We admire Horatio Alger, the farmer, the cowboy, and the trucker. The history of unionization and of government regulation is taught in terms of David battling the Goliaths of trusts, monopolies, robber barons, boards of directors, and merciless industries.

Today there are few big guys an individual can take on successfully. The average American feels powerless. But one weapon has emerged as a great equalizer—the lawsuit. The misguided malpractice suit is an effective mechanism, which the little guy can use against wealthy medical titans and mammoth insurance companies. And to do so is considered by many to be a noble and heroic deed.

Class summation. These arguments are not intended to deny that genuine examples of malpractice do exist in unfortunate numbers. But the proliferation of malpractice litigation points to other cultural forces at work. Considering our American past, what could be tidier and more historically consistent than a nuisance malpractice suit? It is as American as American history. What other vehicle offers Americans such a noble reason to risk so little for a chance to win so much tax free money? Wouldn't our capitalist forebearers be positively envious!

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Stipulation of dismissal of chiropractic law suit

To: Edward Siegel, M.D.
Executive Vice-President
From: J. Richard Burns, J.D.
General Counsel

This will confirm our conversation of Friday, July 24, 1981 in which I advised you that the New York State Attorney General *has stipulated to dismiss with prejudice** the Chiropractic Anti-Trust lawsuit against the Medical Society of the State of New York and the Nassau County Medical Society. The same suit was also dismissed with prejudice against the American College of Radiology, the Joint Commission on Accreditation of Hospitals, the American College of Radiology, the American College of Physicians and the New York State Chapter of the American College of Radiology. The action had previously been dismissed against Henry I. Fineberg, M.D., the only individual defendant.

You will recall that earlier the American Medical Association entered into a "stipulation of settlement" with the Attorney General's Office, wherein it made certain agreements and concessions concerning the practice of chiropractic including changes, adopted in 1980, in its Principles of Medical Ethics including permission for its members to voluntarily associate professionally with chiropractors.

The Medical Society of the State of New York made absolutely *no concessions* and was prepared to pursue the lawsuit to trial. We had prepared a motion to dismiss the action against the State Medical Society and the Nassau County Medical Society, as moot since the Attorney General had obtained the concessions it desired from the AMA, the chief defendant. In my judgment, the Attorney General realized that it faced a hopeless situation and wished to end the suit as gracefully as possible.

continued on page 1429

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* This means that legally a suit based on the same facts cannot be reinstituted.

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Hay Fever in Season

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It is estimated that 7 to 8 million people in the United States are afflicted with hay fever. Annually, millions of school days and work days are lost by incapacitated sufferers of this seasonal type of allergic coryza.

The clinical symptoms resulting from this state of human hypersensitivity usually depend on the sensitization of the shock organ as a result of pollen contact and the threshold of the tissues affected. The more common manifestations include nasal congestion and discharge, paroxysmal sneezing, swollen and itchy eyes associated with watering, itching of the palate and ears, sore throat, seasonal headaches, fatigue, general exhaustion and mental depression, asthmatic coughing, wheezing and dyspnea and in rare instances contact dermatitis.

Hay fever may be divided into three classic clinical types depending on the pollen inhaled and the seasonal occurrence — spring, summer, or fall. While pollens are by far the most common cause of seasonal vasomotor rhinitis, other factors must not be overlooked as possible causes such as molds, insects, seasonal air pollutants, and certain foods.

The nature of pollens is such that single pollen granules are invisible to the naked eye but when collected in masses, they appear as a fine yellow powder. Pollen is an important factor in the fertilization of attractive plants and the maintenance of plant life depends on its wide-spread dissemination. For the allergist, the pollens of importance are those which are airborne. The insect pollinated plants are in most cases not the cause of allergic symptomatology since the amount of pollen disseminated is small and the pollen granules are usually heavy and sticky. The windborne pollens on the other hand are so light that they float in the air in large numbers for hours or days unless heavy rains clear the atmosphere. The degree of pollination and the effect it will have on an individual is dependent on a variety of factors. The more important being the amount of sunshine, humidity, and rainfall; the temperature, wind velocity, and direction; the presence of frost and last but not least, the degree of the patient's sensitivity to the specific pollen. Clinically, on a hot, dry day there is more pollen in the air and consequently, patients with hay fever experience symptoms that are more severe; if it is also windy the pollen will be more abundant and hence the patient will be more troubled. However, on hot, humid days hay fever symptoms are less since the moisture coating the pollen granules makes them heavier and therefore more likely to drop to the ground. Days of least discomfort are the rainy days when pollen granules are unable to float in the atmosphere and are thereby grounded. Beautiful flowers do not ordinarily cause typical hay fever symptoms. However, pollen sensitive individuals, who because of their work, come in close contact with pollens from flowers may experience symptoms of coryza. Normally, the pollens of flowers are heavy and sticky and do not become airborne and therefore are not troublesome to the ordinary hay fever patient.

Types

Early or tree hay fever. If a patient has symptoms of hay fever or asthma or both, in March continuing into the end of May, the tree pollens should be suspected as responsible for the etiologic factors. About 10 percent of all hay fever symptoms are caused by tree pollens; trees pollinate in a relay of seasons. The elm pollen usually opens the season and the hickory usually terminates it. Hardwood trees are the pollen manufacturers which cause difficulty to a large portion of the hay fever population. Fruit tree blossoms are not important as causative agents in this affliction since their vegetation having colorful, beautiful blossoms attract insects resulting in very little disbursement of pollen in the air.

Summer hay fever or rose fever. This type of hay fever begins about May 15th and lasts until July. The term rose fever is a misnomer since there is no fever and the patient's symptomatology is not related to contact with roses. This name has been attached to hay fever due to grass pollens simply because during grass pollen season roses are usually in full bloom and the patient associates his symptoms with the surrounding roses. Approximately 60 percent of all hay fever cases are caused by the grass pollens. The more common allergens are timothy, orchard, red top, sweet vernal, and blue grass. English plantain is a weed whose pollen is also responsible for symptomatology during this period of the year. About one third of all the patients sensitive to grasses are also sensitive to plantain.

Ragweed or late hay fever. The most common cause of hay fever is ragweed pollen. Ragweed usually begins pollinating about the middle of August and is responsible for the symptomatology evident in 90 percent of all the hay fever sufferers. Both the high and low varieties of ragweed are disseminated and are causative agents of coryza during the fall months of the year. Goldenrod, popularly suspected of causing hay fever, is insect pollinated but may cause symptoms in a ragweed sensitive individual on close contact.

Diagnosis

The diagnosis of hay fever can be easily made when a clear history is obtained indicating that symptomatology appears only within the limits of spring, summer, or fall. However, not all seasonal coryzas are due to pollens. For instance, in certain areas of the United States, the caddis fly's epithelial scales may cause symptoms of coryza and asthma in the late summer. Fungus spores may also be responsible for late summer hay fever. Alternaria is one of the more important molds which can cause difficulty in the differential diagnosis of seasonal coryza. This type of sensitivity usually complicates, and is at times associated with, a prolonged symptomatology during the hay fever season. Some of the more important of these complicating factors include infection, environmental irritants, furnaces and heating units used for the first time in the fall, dissemination of dust particles within the immediate environment of the home, temperature changes, and emotional or physical stress.

The importance of taking a clear, concise, complete allergic history cannot be overemphasized. Not only can one make a diagnosis from the history but one is better able to determine the specific pollens and the strength of the extracts to be used in the diagnostic testing procedure. When contemplating allergy skin testing choose the appropriate allergens for testing based on the clinical history. By concentrating on the seasonal aspects of the patient's symptoms and on the allergens in the patient's immediate environment, important information may be obtained from skin testing with a select number of allergens. A carefully obtained history, taken by an alert physician, will often prevent the occurrence of a dangerous constitutional reaction in the very sensitive patient by using the proper pollen dilutions for testing.

Allergy testing

Before any hyposensitization program can be attempted, the type and degree of pollen sensitization must be accurately determined in each individual case. The commercial mail order package type of treatment for all pollen sensitive patients based only on clinical history leads to poor patient management. This type of injection treatment very often leads to dangerous constitutional reactions, poor results, and to a poor patient-doctor relationship.

Unfortunately, there is no exact test available to the practicing clinician indicating the patient's specific sensitivity to a particular allergen. There are however allergy tests that can confirm the physician's clinical diagnosis. Search for an offending seasonal allergen is still largely dependent on precise history taking and clinical provocation testing with the specific allergen. Allergy testing should be used only if one is aware of the limitations involved. The testing techniques in common use today involve the following: skin tests, either by scratch, intradermal or passive transfer; ophthalmic testing; and provocation testing.

A more recent addition to the testing techniques for identifying atopic allergens is the RAST (Radioallergosorbent Test) which measures the specific IgE circulating in the serum rather than the IgE fixed to mast cells in the skin. The RAST test should not be regarded as a replacement for direct skin testing but only as an adjunctive type of allergy testing.

Treatment

Treatment of the hay fever patient involves an understanding of the multiple factors that combine with the pollen effect to cause the patient's symptoms and discomfort. The presence of other multiple environmental allergens to which a patient may be allergic in addition to the pollen should be considered in the overall management of the patient. The patient suffering from hay fever symptomatology must be managed in a comprehensive manner encompassing not only injection therapy for hyposensitization with appropriate antigens, but with additional supportive management including avoidance and elimination of the more important inhalants and irritants in the patient's environment and drug therapy for symptomatic relief.

Hyposensitization therapy

Before hyposensitization therapy is attempted, it is necessary to classify the sensitivity of the patient accurately by the results of intracutaneous test reactions. A dosage schedule of therapy with the antigen is based on the patient's skin sensitivity. This may not be entirely reliable in all cases but from my experience it is a safe and acceptable means of classifying the majority of hay fever sufferers. Data thus obtained from skin testing, judiciously and carefully performed and properly interpreted, serves to identify both the exciting pollen and the probable degree of the patient's sensitivity. After the patient has been classified, treatment with the appropriate pollens in the proper dosage can be initiated.

There has been question in the past as to the relative effectiveness of hyposensitization treatment in the treatment of hay fever patients. In 1966, Fontana, Holt, and Mainland[1] completed a controversial study that questioned the effectiveness of hyposensitization in a group of children with ragweed sensitivity. Since publication of that paper, an avalanche of reports[2-5] on the effectiveness of hyposensitization therapy by immunologists and allergists have presented evidence that hyposensitization is an accepted effective mode of therapy in treating the atopic patient. Hyposensitization continues to be widely applied by those who are convinced that there are more treatment successes than treatment failures, even though the underlying mechanism for its effectiveness still remains controversial. The rationale of hyposensitization is the attempt to modify circulating and tissue-fixed antibodies. Patients who receive injections with extracts of a particular allergen to which they are sensitive develop a type of thermalstable blocking antibody. There is usually an increase of this blocking antibody in the patient's serum after treatment. However, no correlation has been established thus far between the titer-blocking antibodies and clinical improvement.

The technique of hyposensitization varies widely ranging from the proponents of minimal dosage to those physicians recommending maximal dosage of the allergen. In my opinion, the average patient will usually respond to his own optimal dosage. Injections are given at 5 to 7 day intervals in progressively increasing dosages until a maintenance dose of the particular patient is reached. A patient's maintenance dose is that dose which will give a moderate local reaction at the site of the injection and becomes the size of a dime or quarter 15 to 20 minutes after the injection. This maintenance dose is continued on a weekly basis until no reaction occurs, at which time it may be increased. Injections with pollens should only be carried out in a physician's office under professional supervision. It is important to have available a tourniquet, a vial of adrenalin 1:1000 (dilution), sterile syringes and needles, antihistamines, and steroids. These materials must be within easy reach since the prompt application of a tourniquet and the quick administration of adrenalin may be life-saving in a severe constitutional reaction.

Supportive therapy

In order to achieve the best possible results in the treatment of the hay fever patient, patients must be instructed about which factors contribute to produce a result that can mimic hay fever symptomatology. Environmental influences such as cut flowers, dust, musty odors, moth balls, moth flakes, highly scented toilet articles, and/or swimming in fresh water or chlorinated pools may oftentimes aggravate and intensify hay fever symptoms. Chemical fumes like those from lacquers, paints, floor wax, gasoline, and insecticide sprays for rose bushes, fruit trees and other vegetation, dry cleaning fluids, as well as odors from freshly printed newspapers should all be avoided during the hay fever season.

Pollen irritation can be diminished by installing in the bedroom window an efficient conditioner that filters but does not chill the air. A simple face mask during high pollen count days may also afford the hay fever patient, particularly if he is a golfer, much relief. The patient should be encouraged to avoid strong light rays as encountered in open fields, at the seashore, or in motion picture houses. If exposed to these strong light rays, one should wear dark glasses. Strong air currents as when sitting beside an open car or train window or before an electric fan or when sleeping between open windows on a porch may well aggravate symptoms of hay fever. Foods such as melons, grapes, peaches, sweet corn, chocolate, shellfish, and alcoholic beverages may cause increasing symptomatology during the pollinating season. During nonpollinating periods several martinis and a lobster dinner may be most enjoyable and relaxing to the same patient. However, several martinis and a lobster dinner during the pollinating season may cause some hay fever victims much discomfort and a poor dining experience.

Of course, the best "cure" for hay fever is to avoid ragweed pollen by vacationing in a ragweed-free area or taking an ocean cruise.

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Biochemistry of Glycosaminoglycans

Present knowledge

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Glycosaminoglycans (GAGs), formerly called mucopolysaccarides, are compounds within the ground substance of connective tissue. Their structure and distribution in body tissues are described and their biosynthetic and degradative processes discussed. The mucopolysaccharidoses, a group of inherited diseases resulting from GAG storage disorders, are presented.

The ground substance of connective tissue, as distinguished from the cells and the fibrous components such as collagen, includes all of the nonfibrous, noncellular material. It exhibits metachromasia when stained with toluidine blue and other polychromatic dyes. All the known ground substance materials contain hexosamines, of which the interesting compound is glycosaminoglycan.

The term glycosaminoglycan (GAG) is now generally used in the biochemical literature in place of mucopolysaccharide. GAGs are found in all connective tissue in animals, but the amount and composition vary. For example, in dermis, aorta, and tendon the GAG content is approximately 0.5 percent of the dry weight, whereas in hyaline cartilage, GAG material accounts for about 20 percent.

Polysaccharide chains

The GAGs are heteropolysaccharides that consist of repeating disaccharide units of a hexosamine and a hexuronic acid with the exception of keratan sulfate, which has glucosamine and galactose linked by glycosidic bonds. These sugars are closely related to glucose and are readily obtained metabolically from glucose. The structures of their dominant repeating disaccharide unit are given in Table I and Figure 1; some examples of their distribution in tissues and some physical data are described in Table II. All except one, hyaluronate, are sulfated. These polysaccharide types are distinguished by their monomer composition, by the position and configuration of their glycoside linkage, and by the amount and location of their sulfate substituents. Certain individual GAG molecules will be mentioned briefly because of their particular interest.

Hyaluronate. The repeating disaccharide units of hyaluronate consist of glucuronic acid linked to N-acetylglucosamine. This GAG is a component of

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TABLE I. Disaccharide units in glycosaminoglycans*

Polysaccharide	Dominant Disaccharide Repeat Sugar Residue 1	Sugar Residue 2
Hyaluronate	→4) βGlcUA(1 → 3)	βGlcNAc(1→
Chondroitin 6-sulfate	→4) βGlcUA(1 → 3)	βGalNAc6SO$_4$(1→
Chondroitin 4-sulfate	→4) βGlcUA(1 → 3)	βGalNAc4SO$_4$(1→
Dermatan sulfate	→4) αIdUA(1 → 3)	βGalNAc4SO$_4$(1→
	Also contains	
	→4) βGlcUA(1 → 3)	βGalNAc4SO$_4$(1→
Keratan sulfate	→3) βGal(1 → 4)	βGlcNAc6SO$_4$(1→
Heparin-like polysaccharides (including heparin and heparan sulfate)	→4) αIdUA(1 → 4)	αGlcNAc(1→
	→4) βGlcUA(1 → 4)	αGlcNSO$_3$(1→
	→4) βGlcUA(1 → 4)	αGlcNAc(1→
	→4) αIdUA(1 → 4)	αGlcNSO$_3$(1→

* Adapted from Comper and Laurent (1978).
Abbreviations:
SO$_4$, sulfate (ester); NSO$_3$, N-sulfamino; Gal, D-galactose; GlcUA, D-glucuronic acid; GlcNAc, N-acetyl-D-glucosamine; GalNAc, N-acetyl-D-galactosamine; IdUA, L-iduronic acid.

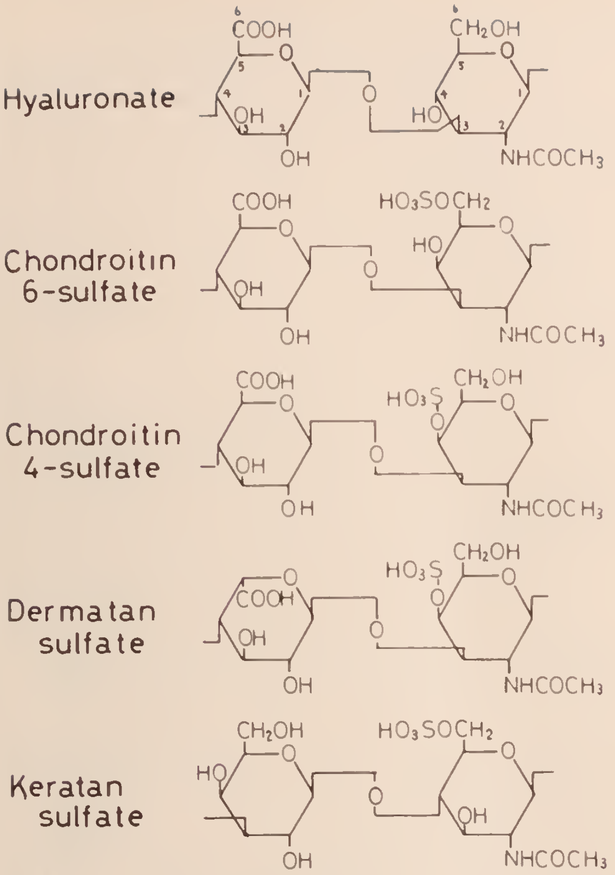


FIGURE 1. Structure of the dominant disaccharide units of various glycosaminoglycans.

the capsule of certain strains of pneumococci, streptococci, and certain other organisms as well as the vitreous humor, synovial fluid, and umbilical cord. Its concentration in loose connective tissue such as synovial fluids is 1 to 3 mg. per cubic centimeter and in vitreous humor is 0.021 to 1 mg. per cubic centimeter.

In solution, hyaluronate forms a very highly viscous solution and is noted for this property as a lubricant in the synovial fluid of joints. Perhaps one of the principal properties of hyaluronate is that it binds or traps water in the interstitial spaces and holds cells together in a jelly-like matrix. Recently, hyaluronate received much attention because it was shown to have a unique role in the formation of cartilage proteoglycan aggregates, as will be described later.

Chondroitin sulfates. These GAGs consist of a D-glucuronic acid moiety linked through a glycosidic bond to N-acetylgalactosamine. The polymers are sulfated by sulfotransferases that utilize 3′-phosphoadenosine 5′-phosphosulfate (PAPS) as sulfate donor and catalyze the formation of ester sulfate groups at C-4 and C-6 of the N-acetylgalactosamine residues; chondroitin 4-sulfate (chondroitin sulfate A) has a sulfate group on C-4, while in chondroitin 6-sulfate (chondroitin sulfate C) it is on C-6. The sulfated product usually contains about one sulfate group per disaccharide residue although considerable deviations from a 1:1 ratio have been noted (Table II). It should be noted that there is considerable heterogeneity among chondroitin sulfates both with respect to polysaccharide chain length and degree of sulfation. Some disaccharide units lack sulfation; others contain sulfate on both the 4 and 6 positions of the hexosamine or on the 2 and 3 positions of the glucuronic acid. Chondroitin sulfates are the most abundant GAGs in the body and occur both in skeletal and soft connective tissue. The concentration of chondroitin sulfates in polysaccharide-rich tissue such as cartilage and intervertebral disk may be as high as 10 percent of wet weight. The mass ratio of chondroitin 6-sulfate to chondroitin 4-sulfate changes with age in cartilage. Chondroitin 4-sulfate is predominant in calcifying regions of both dentins and cartilage.

Dermatan sulfate. In dermatan sulfate, the glycosidic linkages are in the same position and configuration as in the chondroitin sulfates; however, this GAG differs from chondroitin sulfates in that the prominent hexuronic acid is L-iduronic acid. Considerable structural variability has been demonstrated. Some preparations have a comparatively simple structure. For example, pig skin dermatan sulfate consists, essentially, of iduronosyl-N-acetylgalactosamyl-4-sulfate disaccharide units. However, others are extremely complex with extensively hybridized polysaccharide backbone and, in addition, both 4- and 6-0 sulfate galactosamine residues. Oversulfated regions may be due to the

TABLE II. Distribution and properties of glycosaminoglycans

Polysaccharide	Mol wt. ($\times 10^{-3}$)	Sulfate per Disaccharide Unit	Site of Occurrence (examples)
Hyaluronate	4,000–8,000	0	Various connective tissue, skin, vitreous humor, synovial fluid, umbilical cord, cartilage
Chondroitin 4- and 6-sulfates	5–50	0.1–1.3	Cartilage, cornea, bone, skin, arterial wall
Dermatan sulfate	15–40	1.0–3.0	Skin, heart valve, tendon, arterial wall
Keratan sulfate	4–19	0.9–1.8	Cartilage, cornea, intervertebral disk
Heparin	6–25	1.6–3.0	Lung, liver, skin, intestinal mucosa (mast cell)
Heparan sulfate	···	0.4–2.0	Lung, arterial wall

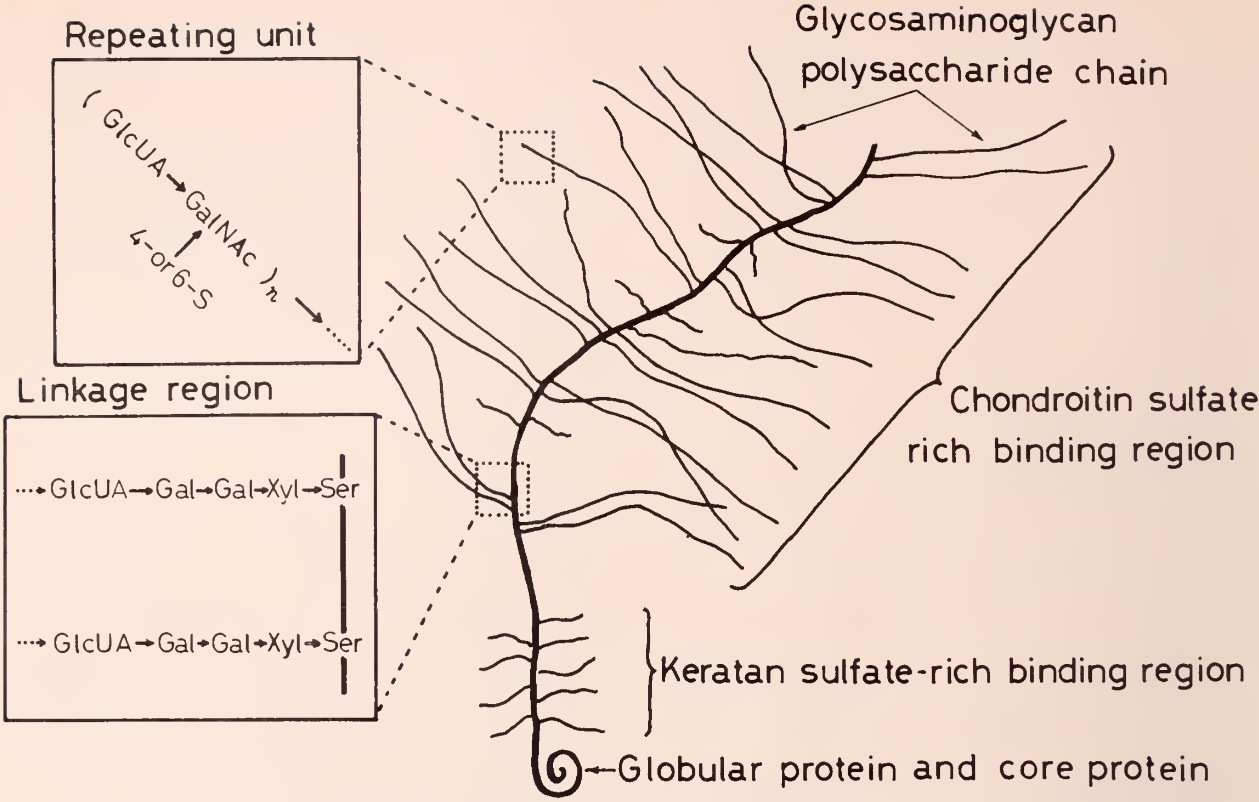

Repeating unit
(GlcUA→GalNAc)n
4-or 6-S
Linkage region
····→GlcUA→Gal→Gal→Xyl→Ser
····→GlcUA→Gal→Gal→Xyl→Ser
Glycosaminoglycan polysaccharide chain
Chondroitin sulfate-rich binding region
Keratan sulfate-rich binding region
Globular protein and core protein

FIGURE 2. Structure of cartilage proteoglycan monomer.

occurrence of sulfated L-iduronic acid units; sulfate O-glucuronic acid has not been detected.

Dermatan sulfate was originally isolated from pig skin, tendon, and heart valves, but it is also highly concentrated in blood vessels. The proportion of dermatan sulfate increases with age in vessel walls and is associated with fibrous collagen. The physiologic functions of dermatan sulfates are not well understood.

Heparan sulfate and heparin. Heparin is regarded as a mixture of principally two disaccharide repeating units: L-iduronosyl-D-D-acetylglucosaminyl-6-sulfate and D-glucuronosyl-D-N-acetylglucosaminyl-6-sulfate. Although heparan sulfate appears to have backbone carbohydrate structures identical or similar to those of heparin, it differs from heparin in its N-sulfate and N-acetate contents, the location of its biosynthesis, and in its manifestation.

Heparan sulfate is generally present as a surface component of mammalian cells, mainly in blood vessels of various sizes, and it appears to be a structural element, unlike heparin to which it is closely related. Heparin is found intracellularly in mast cells and therefore does not directly belong to the group of connective tissue polysaccharides; it is principally known for its anticoagulant activity.

Keratan sulfate. Keratan sulfate is unusual in that it does not contain hexuronic acid. In place of the hexuronic acid residue found in other GAGs, there is a neutral hexose unit, D-galactose. The second component monosaccharide is D-N-acetylglucosaminyl-6-sulfate. Total sulfate content varies, but there is an ester sulfate present at carbon 6 of both residues. Keratan sulfate appears to be exclusive to cartilage, nucleus pulposus, and cornea.

Proteoglycans

There is now general agreement that most of the GAGs occur in native state covalently bound to protein as PG (proteoglycan) in which several polysaccharide chains are covalently linked, at the reducing terminal sugar, through the tetrasaccharide sequence: glucuronic acid-galactose-galactose-xylose, to the hydroxy group of serine residues in the protein core. However, there is no general agreement yet whether hyaluronate also is covalently bound to protein in the tissue. Although evidence has been presented suggesting covalent attachment of some protein core to hyaluronate from synovial fluid, all available information points to hyaluronate being present as a pure polysaccharide chain.

The most intensively studied PG is that obtained from nasal cartilage. A typical PG, whose average molecular weight is 2.5 times 10^6, contains 5 to 10 percent protein and consists of about 100 chondroitin sulfate chains, each with an average molecular weight of approximately 2 times 10^4 and 50 to 60 keratan sulfate chains, each with an average molecular weight of 5 times 10^3, linked to a protein core of 2 times 10^5 molecular weight (Fig. 2). The total PG structure thus resembles the form of a bottle brush. Available

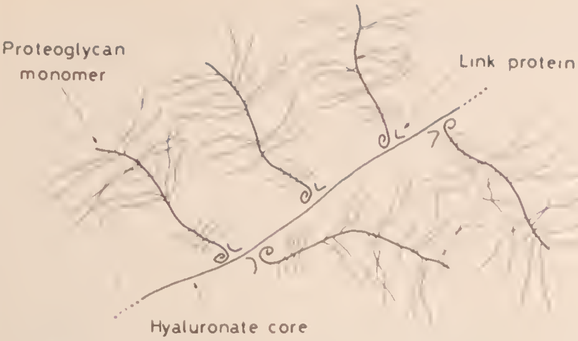


FIGURE 3. Structure of cartilage proteoglycan aggregates.

evidence suggests that most of the keratan sulfate chains (approximately 60 percent) are attached between the chondroitin sulfate-binding region of the protein core and its globular part. This binding region, which is rich in keratan sulfate, contains only a small proportion (10 percent) of the chondroitin sulfate chains present in the molecule.

Furthermore, cartilage PGs generally occur in the tissues as aggregates of very high molecular weight, held together by binding of many PG monomers to a single long hyaluronate chain. The protein in the PG contains a globular part that binds specifically to the hyaluronate chains. There is also a "link protein" (glycoprotein) involved in the binding that stabilizes the superstructure (Fig. 3).

Biosynthesis of PGs and GAGs

Considerable advances in the understanding of the biosynthetic processes underlying the formation of sulfated PGs have been made recently. Essentially, a biosynthetic step involves: (1) formation of the protein chain, (2) addition of carbohydrate to the protein chain and elaboration of the polysaccharide, and (3) addition of the GAG chains.

Various studies show that the formation of the protein moiety precedes the polysaccharide elaboration. Although the protein biosynthesis of the PGs has not been investigated, it may be presumed to occur by the normally accepted methods of protein synthesis. It is considered that certain amino acid sequences code for the attachment of the polysaccharide chain, and that this code must contain L-serine for the majority of GAGs, or L-asparagine for some keratan sulfate chains, because these units are part of the glycopeptide linkage.

Once the protein sequence has been set up and the protein chain has been produced in intact form, carbohydrate units may be added to complete the formation of a PG molecule. A linkage region consisting of typical neutral sugars that joins the carbohydrate chain to protein (glucuronosyl-galactosyl-galactosyl-xylosyl-O-serine sequence) is common to all the sulfated GAGs, apart from keratan sulfate, as described earlier. The synthesis of the main carbohydrate chain is dependent on prior formation of this linkage region. Much interconversion between various monosaccharides is required for polysaccharide chain synthesis and for transferase reactions that build up the carbohydrate chains, and this interconversion occurs at the nucleotide level. The nucleotide monosaccharides required for GAG synthesis are the uridine diphosphate (UDP) derivatives of D-xylose, D-galactose, D-glucuronic acid, D-N-acetylglucosamine, and D-N-acetylgalactosamine. The polymerization reactions leading to formation of GAGs are generally believed to occur by stepwise addition of monosaccharide units from the appropriate UDP-sugars to the nonreducing ends of the nascent polysaccharide chain. However, some studies also suggest a possible role for lipid-bound disaccharide intermediates in the biosynthesis of hyaluronate and/or heparin-like polysaccharides.

It can be postulated from the structure of chondroitin sulfate that the biosynthesis of this polysaccharide is catalyzed by six distinct glycosyltransferases:

$$\overset{(6)}{(\mathrm{GlcUA} — \mathrm{GalNac})_n} — \overset{(5)}{\mathrm{GlcUA}} — \overset{(4)}{\mathrm{Gal}} — \overset{(3)}{\mathrm{Gal}} — \overset{(2)}{\mathrm{Xyl}} — \overset{(1)}{\mathrm{Ser}}$$

1. A xylosyltransferase which initiates polysaccharide chain formation by the transfer of xylose from UDP-xylose to the protein core of the proteoglycan;
2. A galactosyltransferase which catalyzes the transfer of galactose from UDP-galactose to the xylose-protein formed by the first enzyme;
3. A second galactosyltransferase with the first galactose residue as acceptor;
4. A glucuronosyltransferase which completes the formation of the specific carbohydrate-protein linkage region by glucuronosyl transfer from UDP-glucuronic acid to the second galactose unit;
5. An N-acetyl-galactosaminyltransferase; and
6. A second glucuronosyltransferase which is responsible for the synthesis of the characteristic repeating disaccharide units.

Sulfation of N-acetylgalactosamine residues by a sulfatransferase probably occurs as the chain elongates, but with sufficient lag to allow continued chain elongation. In the case of hyaluronate, although chain initiation remains a mystery, chain elongation proceeds in a similar fashion to that of chondroitin sulfates, with the alternating addition of glucuronic acid and N-acetyl-glucosamine from the appropriate sugar nucleotides to the nonreducing end of nascent oligosaccharides. The existence of these enzymes in cartilage and other GAG-producing tissue is now well established.

The biosynthesis of the PG molecules is initiated by formation of the core protein at the ribosome. GAG chain initiation occurs with the newly formed protein soon after it leaves the ribosome and enters the cisternal space of the endoplasmic reticulum. It is at this stage that the material becomes effectively extracellular and the glycosyltransferases that catalyze the specific and sequential addition of the other glycopeptide linkage monosaccharides to the initially glycosylated protein are presumably membrane bound. At a later stage, during the movement of the growing molecule through the smooth membranes to the Golgi complex, the monosaccharide units are added to give the alternating sequence. The involvement of the Golgi complex is certain; the chain propagation probably takes place on the membranes, and the Golgi body plays a major role in exporting the macromolecule to the extracellular space.

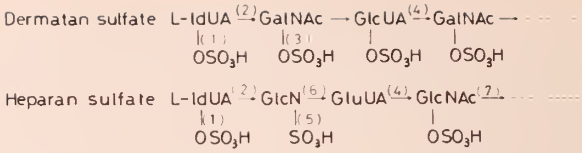
Degradation of GAGs

Degradation of GAG has not been extensively studied despite the defects of GAG catabolism that occur in the many different types of mucopolysaccharidoses as described later. It has been shown that hyaluronate and chondroitin sulfates are depolymerized into a mixture of oligosaccharides ranging from tetra- to decasaccharides by a hyaluronidase isolated from liver and bone lysosomes. In turn, other lysosomal enzymes such as β-glucuronidase, β-N-acetylglucosaminidase, and β-N-acetylgalactosaminidase can reduce these oligosaccharides to smaller units. On the other hand, in chondroitin sulfate-proteoglycan, the initial degrative step seems to be proteolytic in nature, and it is performed by cathepsins or neutral proteases, giving rise to relatively intact chondroitin sulfate chains which may then be degraded further to smaller products within the tissue.

Alteration in GAG metabolism

It will be recognized from a knowledge of the metabolism of GAG that an enormous number of stages are involved in the biosynthesis and catabolism of these macromolecular substances and therefore an additive may have an inhibiting or a stimulating effect at one or more of many stages. Indeed, a number of factors, including hormonal, drug, and nutritional factors, have been investigated for their influence on GAG metabolism, but because of limited space their consideration will be omitted.

Mucopolysaccharidoses. Certain diseases of connective tissue have been referred to as mucopolysaccharidoses (genetic hyperglycosamino-glycanuria) because of large amounts of GAG in the affected organs and urine. These GAG storage disorders are recessively inherited conditions, and the overall frequency in a Western population has been estimated at less than 1 per 10^5 live births. The syndrome of these diseases varies in severity of degree of mental retardation and in physical malformation. It is shown that five mucopolysaccharidoses are each due to the deficiency of one of the lysosomal enzymes needed for the degradation of dermatan sulfate and/or heparan sulfate. The enzymes, the linkages hydrolyzed, and the deficiency diseases are shown in Figure 4. The absence of any one of the indicated activities causes the accumulation of the polymer molecule. The catabolism of other GAGs may be affected in the same manner. Indeed, two enzymatic defects have already been associated with the failure to catabolize keratan sulfate in Morquio's syndrome: N-acetyl-hexosamine-6-sulfatase and β-galactosidase.



$$\text{Dermatan sulfate}\quad \underset{\overset{|(1)}{OSO_3H}}{\text{L-IdUA}} \xrightarrow{(2)} \underset{\overset{|(3)}{OSO_3H}}{\text{GalNAc}} \longrightarrow \underset{\overset{|}{OSO_3H}}{\text{GlcUA}} \xrightarrow{(4)} \underset{\overset{|}{OSO_3H}}{\text{GalNAc}} \longrightarrow \cdots$$

$$\text{Heparan sulfate}\quad \underset{\overset{|(1)}{OSO_3H}}{\text{L-IdUA}} \xrightarrow{(2)} \underset{\overset{|(5)}{SO_3H}}{\text{GlcN}} \xrightarrow{(6)} \text{GluUA} \xrightarrow{(4)} \underset{\overset{|}{OSO_3H}}{\text{GlcNAc}} \xrightarrow{(7)} \cdots$$

LINKAGE	ENZYME	DISEASE
1	iduronate sulfatase	Hunter syndrome
2	α-L-iduronidase	Hurler, Scheie syndrome
3	N-acetylgalactosamine 4-sulfatase	Maroteaux-Lamy syndrome
4	β-glucuronidase	β-glucuronidase deficiency
5	heparan N-sulfatase	Sanfilippo A syndrome
6	?	? Sanfilippo C syndrome ?
7	α-N-acetylglucosaminidase	Sanfilippo B syndrome

FIGURE 4. Enzyme deficiencies in the mucopolysaccharidoses. Degradation of two GAGs, dermatan sulfate and heparan sulfate, most involved in mucopolysaccharidoses are shown on upper portion of figure. Numbers in brackets refer to the enzymes responsible for breakdown of various regions of these GAGs. The enzymes corresponding to the numbers are identified in lower portion of figure. Also included are the various mucopolysaccharidoses and corresponding enzyme deficiency. (Adapted from Neufeld, 1977.)

Concluding remarks

In conclusion, an enormous number of steps are involved in the biosynthetic and degradative processes of both collagen and GAGs which take part in the pathogenesis of many connective tissue disorders, and each step is subject to control. As information about this structure and metabolism accumulated, biochemical data explain a number of heritable connective tissue diseases. Conversely, studies of some heritable diseases provide new information about metabolic processes of these macromolecules.

Several excellent reviews listed under Bibliography, in this and the preceding article, may be helpful for those who are interested in further understanding the broad field of connective tissue. In addition, it is observed that a hyaluronate-rich extracellular matrix, at the beginning of skeletogenesis, plays an important role in the mesenchymal cell migration and proliferation, and in the following cartilage differentiation, hyaluronate is removed and large amounts of Type II collagen and a characteristic chondroitin sulfate-proteoglycan are produced. However, a great deal still remains to be studied in this field, including the functional aspects. Much more work is needed, combining both biological and biochemical approaches.

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More study needed of implanted insulin devices for diabetics

Caution in proceeding with implantation of an artificial pancreas as a potential cure for diabetes is voiced in a report in the February 20 Journal of the American Medical Association.

Recently, successful diabetic treatment with implanted insulin delivery devices has accelerated efforts toward total implantation. Within months remotely controlled implantable insulin devices will be available to many specialists in diabetes.

MDs David S. Schade and R. Philip Eaton of the University of New Mexico School of Medicine, Albuquerque, ask: With more than five million diabetic patients in this country, should widespread, clinical implantation of these devices be started immediately? Drs. Schade and Eaton promptly answer their own question: Not yet.

There still are too many answers not yet available in implanted insulin delivery, the New Mexico physicians point out. A major problem is to make absolutely certain the device is foolproof. If a sudden big surge of insulin were released, death would follow quickly.

There is no great urgency to begin implanting devices that will release small amounts of insulin daily, thus freeing the diabetic from the need for regular injections of insulin. Those very injections are effective in controlling diabetes already, and the implantable devices are not required to keep diabetics alive, they point out.

If the device delivers just a little too much insulin, the result would be weight gain to the point of obesity. Other unanswered questions concern the amount of insulin to be released per meal and appropriate dosage for each patient.

There is real hope that the problems will be solved, and "An optimistic approach would suggest that before the end of this decade, small safe, implantable insulin delivery devices will be available to diabetic patients in whom the complications of diabetes constitute a threat to life."

Laboratory Tests in Diabetes Mellitus

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Laboratory tests used in diabetes mellitus—blood glucose, oral glucose tolerance test, urine glucose, and glycohemoglobin—are discussed. The importance of the clinical consideration and the proper collection of laboratory specimens leading to proper interpretation of results is illustrated. Better understanding of the mechanisms and limitations of laboratory tests will aid clinicians in providing quality patient care. In the author's opinion, laboratory medicine is direct patient care.

Laboratory medicine has evolved into a highly sophisticated technology interphased with all facets of science. Laboratory tests are indispensable weapons of physicians, and, indeed, at times shield against malpractice suits. As a diagnostic tool, laboratory tests provide objective data, as opposed to subjective clinical judgment. It is to be understood, however, that the accuracy of any single laboratory test matches that of the clinician who orders it. Accuracy starts only after a thorough history and physical examination, followed by a wise choice of tests, appropriate preparation of the patient, attention to details during specimen collection, and finally, intelligent interpretation of the results. Frequently, laboratory tests are ordered "shotgun style" to replace the time-consuming process of history-taking and physical examination. The clinical situation under which the specimen is collected receives little consideration. Collection of specimens is performed in a perfunctory manner and is usually left to the nursing staff who may not abide by the details demanded by the clinical laboratory director. Clinicians are endowed with a false sense of security when results fall into the normal range, and may try to treat any laboratory abnormality regardless of its significance.

There are few other clinical entities as dependent as diabetes mellitus on laboratory tests for the management of the disease. Laboratory tests are required in diabetes mellitus for establishing the diagnosis, formulating a therapeutic regimen, monitoring adequacy of treatment, and detecting overtreatment. The following account of tests used in diabetes mellitus exemplifies the values as well as the problems associated with laboratory tests.

Blood (plasma, serum) glucose

Although frequently referred to as blood glucose, nowadays glucose determination is usually performed on plasma or serum. The plasma or serum value is 15 percent greater than the blood value, and this discrepancy can be a source of misinterpretation when reference values are applied.

Erythrocytes and leukocytes consume glucose by way of glycolysis in vitro at a rate of 7 mg. per hour. Specimens left standing at room temperature for a prolonged period of time prior to serum clot separation will produce falsely low glucose levels. Anticoagulated blood, however, is stable for 24 hours.

Blood glucose monitoring in the home is an innovation recently introduced in parallel with the current concept of strict diabetic control to prevent and possibly reverse microangiopathic complications.[1] Patients are instructed to obtain blood specimens by self-inflicted finger pricks, and based on a glucose-oxidase reaction, the glucose level can be read from commercially available reflectance meters. Insulin requirement is titrated according to scheduled self-determined blood glucose levels. Selection of patients in terms of compliance and perseverance is undoubtedly important; it must also be ascertained that the diabetic person's visual proficiency in reading the digital printout of reflectance meters is unimpaired.

Oral glucose tolerance test

The OGTT (oral glucose tolerance test) is one of the most important tests in clinical practice since it carries the responsibility of putting a lifelong label on an individual. The test bears such socioeconomic impact that its proper performance and interpretation should never be overlooked.

A standard base-line condition should precede the OGTT.[2] The American Diabetic Association recommends preparation consisting of a diet 150 Gm. or more in carbohydrate for at least three days before the test. Activity should be normal until 12 hours prior to the test, when absolute bed rest and fasting, and total abstinence from coffee and smoking are required. The patient should be free from any illness for two weeks, and in major events such as a myocardial infarction, a more prolonged convalescent period is advisable. Other endocrine disorders should be ruled out. Drugs that may affect glucose tolerance should be avoided. Oral contraceptives should be omitted for a complete cycle. Half-hourly

TABLE I. Conventional diagnostic criteria for diabetes mellitus*

Measurement System	Plasma Glucose Level (mg./dl.) Fasting	½ hour	1 hour	1½ hours	2 hours	3 hours	Criteria
Fajans-Conn	...	185	160	140	...	...	All values equal to or greater than shown
Wilkerson Point System (USPHS)†	125 1 point	...	195 ½ point	...	145 ½ point	125 1 point	Total of 2 or more points
Siperstein	140	...	260	...	220	...	(a) Fasting 140 on at least two occasions (b) 1 hr.-260 or more 2 hr.-220 or more
Gestational diabetes mellitus	105	...	190	...	165	145	2 or more values equal to or greater than shown

* Loading dose of glucose has been variable: 50, 75, and 100 Gm. For gestational diabetes mellitus: 100 Gm. glucose is loading dose.
† USPHS: United States Public Health Services.

TABLE II. New international classification and criteria of diabetes mellitus and other categories of glucose intolerance (old names in parentheses)

Classification	Criteria
Type I Insulin-dependent diabetes mellitus (juvenile diabetes, brittle diabetes, ketosis-prone diabetes)	A. Classic symptoms plus postprandial plasma glucose 200 mg./dl. or B. FPG:* at least 140 mg./dl. on more than one occasion. or C. OGTT:† more than 200 mg./dl. at 1 and 2 hours, confirmed by repetition.
Type II Noninsulin-dependent diabetes mellitus (Adult-onset diabetes, maturity-onset diabetes, stable diabetes, maturity-onset diabetes of youth	
Diabetes associates with other condition or syndrome	
Impaired glucose tolerance (a) nonobese, (b) obese (chemical diabetes, subclinical diabetes, borderline diabetes, latent diabetes)	FPG: 140 mg./dl. or less plus OGTT: 200 mg./dl. or more at 1 hour; 140–200 mg./dl. at 2 hours
Normal	FPG: 115 mg./dl. or less
Previous abnormality of glucose tolerance (latent diabetes, prediabetes)	Adults: OGTT: 200 mg./dl. or less at 1 hour; 140 mg./dl. or less at 2 hours
Potential abnormality of glucose tolerance (potential diabetes, prediabetes)	Children: FPG: 130 mg./dl. or less OGTT: 140 mg./dl. or less at 2 hours

* FPG: fasting plasma glucose
† Challenge dose of OGTT (oral glucose tolerance test) is 75 Gm. in adults; in children, 1.75 mg./kg. up to 75 Gm.

urine collection during the OGTT is not necessary; it has no diagnostic bearing and is not recommended since it may inflict anxiety, thereby affecting the glucose tolerance curve. During the test, patient should remain seated and smoking is prohibited.

Interpretation of the glucose tolerance test is based on measurement system proposed by numerous authors (Table I). The diagnostic criteria of Fajans-Conn is frequently referred to; some prefer the Wilkerson Point System. In recent years, these measurement systems have been under close scrutiny, and criticism has been directed mainly at the usage of young subjects as reference population, since glucose intolerance increases with age. Accepting the common criteria, an unduly high number of individuals over age 40 will be labeled diabetic. Other nonspecific factors such as obesity, inactivity, poor carbohydrate intake, and ethnic background also alter the glucose tolerance. Based on these pitfalls, some authorities advocate reserving the OGTT for diagnosing gestational diabetes when proper management can reduce fetal morbidity and mortality rates, and in cases of obesity when an abnormal OGTT may be the incentive for weight reduction.

The world's experts in diabetes research recently set the new "International Classification of Diabetes Mellitus and other Categories of Glucose Intolerance" and their diagnostic criteria (Table II).[3] The new system has since gained worldwide acceptance.

The new diagnostic criteria follow the recent trend towards the more liberal criteria of Siperstein. Noteworthy changes are the worldwide standardization of using 75 Gm. glucose as the challenge dose, and the categorization of individuals whose OGTTs fall between the normal and diabetic ranges as "impaired glucose tolerance," avoiding the label "diabetes" which appears in the old terminologies—chemical diabetes, latent diabetes, and so forth. The same intention dictates the naming of "previous abnormality of glucose tolerance" and "potential abnormality of glucose tolerance"; both merely indicate statistical risk. Gestational diabetes remains unchanged in the 100-Gm. glucose challenge dose and in the diagnostic criteria.

Urine glucose

The rate of glucose excretion in urine is codependent on the concentration of glucose in the circulation and on the renal threshold. Glucosuria without hyperglycemia is due to low renal threshold and is associated with renal tubular dysfunction (for example, Faconi syndrome), or benign renal glycosuria. Hyperglycemia without glucosuria is due to elevated renal threshold subsequent to a compromise in the dynamics of glomerular perfusion, impairment of nephron reabsorption rate, and reduction of renal flow.

Although glucose found in urine is not necessarily indicative of diabetes mellitus, its presence is regarded as a hallmark and calls for a work-up for confirmation or exclusion of the disease. Glycosuria, however, is a poor indicator of hyperglycemia status because of the variable factor of renal threshold and because the urine examined may be only a reflection of the blood glucose level a few hours prior to the urine collection. Insulin coverage based on "dipstick" grading of glycosuria (0 to 4+) of spot urine samples is a convenient but grossly inaccurate method of establishing optimal diabetic control.

The reagent strips used for dipstick grading are based on the glucose-oxidase/peroxidase reaction detectable by various chromogens. The test is influenced by large amounts of ascorbic acid, and by drugs and dyes producing colored urine. False positive readings may be produced by strongly oxidizing cleaning agents in the urine container. Since color discrimination is the key to the semi-quantitation of glycosuria, diabetic persons involved with self-care using reagents strips should be screened for color-vision handicaps.

Fractional collections of 24-hour urine (collection of urine in aliquots of 8 A.M. to noon, noon to 4 P.M., 4 P.M. to 8 P.M., and 8 P.M. to 8 A.M.) that are tested quantitatively for glucose have been utilized to provide a scale for insulin requirement and diabetic control.[4] This method is especially recommended for children whose renal threshold is expected to be normal and who are generally intolerant of repeated venipunctures or finger pricks.

Nocturnal hypoglycemia, due to prolonged excessive insulin action, is counteracted by hypersecretion of corticosteroids, adrenalin, glucagon, and other hormones. The resultant rebound manifests in hyperglycemia, glycosuria, and acetonuria; this is commonly referred to as the Somogyi effect. Differentiation between the Somogyi effect and inadequate insulin coverage responsible for early-morning hyperglycemia is a recurrent and critical decision for clinicians. Conventional detection of the Somogyi phenomenon is by a 3-A.M. plasma glucose determination. An overnight collection of urine from which the glucose : creatinine ratio is determined should prove a simple and reliable test for nocturnal hypoglycemia. Measurements of the cortisol : creatinine ratio in an early-morning urine specimen has also been found to correlate well with a nocturnal hypoglycemic event.[5]

Glycohemoglobin (glycosylated hemoglobin)

The discovery of elevated glycosylated hemoglobin in diabetes adds new dimension to diabetic diagnosis and management.[6]

Hemoglobin A is the major normal adult hemoglobin, and in the presence of high glucose levels it undergoes an accelerated process of glycosylation during which the glucose is bound to the N-terminal by a nonenzymatic reaction. The formation of glycosylated hemoglobin is irreversible and post-transitional and is a continous process throughout the 120-day life span of the red blood cell. Glycosylated hemoglobin can be separated into a, b, and c components of which the c component, hemoglobin A1c, is the most significant. The concentration of glycohemoglobin is a register of the average circulating glucose level over a period of 120 days; a plasma glucose level is limited to the day-to-day status of diabetic control. The potential applicability of glycohemoglobin testing is diverse. The unequivocal value of glycohemoglobin is for assessing long-range diabetic control, and it is a reliable gauge to patient compliance and a successful therapeutic regimen. Using glycohemoglobin as a marker for the degree of diabetic control, the relation between microangiopathic complications and diabetic control can be better defined in the future.[7]

There are currently two methods of determining glycosylated hemoglobin. The chromatographic technique employs a cation-exchange resin to separate the glycohemoglobin from the rest of the hemoglobin; each is then quantified by spectrophotometric evaluation. The recently introduced biochemical technique is based on phytic-acid binding of normal hemoglobin and the blockage of the binding by the glucose residue in glycohemoglobin. By differential spectrophotometric determination, the amount of glycohemoglobin can be derived.

According to the manufacturer of a glycohemoglobin test kit,* a glycohemoglobin level of about 7 percent is indicative of good diabetic control; 10 percent indicates fair control, and 13 to 20 percent is considered poor control. From the glycohemoglobin level, the physician can obtain an estimate of a patient's mean daily plasma glucose for a period of four to eight weeks prior to the glycohemoglobin determination. A formula has been developed that is valid for glycohemoglobin levels between 4 and 20 percent:[8]

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* Isolab, Akron, Ohio.

$$\text{Mean daily plasma glucose(mg./dl.)} = 10 \times (\text{glycohemoglobin level} + 4)$$

Using this formula, a patient under good diabetic control (glycohemoglobin 7 percent) would have had an estimated mean daily glucose value of 110 mg. per deciliter for the preceding 4 to 8 weeks. A diabetic person under fair control (10 percent) would have had 140 mg. per deciliter; and in cases of poor control (13 to 20 percent), more than 170 mg. per deciliter.

The following conditions can account for pitfalls in interpretating glycohemoglobin measurements:

1. Anemia, due to hemolysis, blood loss, or other mechanisms in which there is loss of old red blood cells and a surge of young red cells and reticulocytes. (Reticulocytes and young cells have little or no glycosylated hemoglobin.)
2. Uremia, with the associated complex hematologic and metabolic changes.[9]
3. Hemoglobinopathies, where hemoglobin A (the substrate of hemoglobin A1a, A1b, and A1c) is either diminished or absent. The presence of excessive hemoglobin F interferes technically with the measurement of glycohemoglobin.

Summary

Clinicians are becoming more and more reliant on the clinical laboratories for patient care. In diabetes mellitus, as well as many other clinical conditions, laboratory tests are practically the core of all therapeutic modalities. Knowledge of the values, mechanisms, and limitations of laboratory tests is not only relevant but a prerequisite to delivery of quality patient care. The author finds it inconceivable that some physicians do not consider laboratory medicine direct patient care.

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Smoking habits affect tar and nicotine intake

To lower your intake of tar and nicotine from smoking cigarettes, puff lightly and infrequently.

This is the conclusion of a report in the January 9 Journal of the American Medical Association.

Lower intake can be influenced more by the smoker than by the cigarette, says Lynn T. Kozlowski, Ph.D., of the Addiction Research Foundation, Toronto.

The average smoker takes 9.8 medium-size puffs per cigarette, Dr. Kozlowski says. But some smokers can take 16 or more larger-than-average puffs on a king-size cigarette, and thereby increase the tar yields by 2.5 times over standard smoking.

Those who draw in only small amounts of smoke in a shallow puff get considerably less tar and nicotine than those who go for big, deep inhalations.

"Given the ease with which a smoker can vary the number, volume, or velocity of puffs taken on a cigarette, and thus modify his or her nicotine and tar intake, it is advisable to recall the pitfalls of the standard machine estimates of the amount of fuel consumption in cars.

"Actual yields will vary, depending on how one smokes. Lower intake can be more influenced by the smoker than the cigarette. Reduced risk does not reside in the cigarette, but in the smoker's behavior."

Small Cell Cancer of Lung

*Rapid tumor necrosis leading to serious pulmonary infections after intensive chemotherapy**

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Aggressive remission-induction chemotherapy of small cell cancer of the lung has inevitably been accompanied by frequent side-effects. Two patients on high-dose CMV (cyclophosphamide, methyl CCNU, and vincristine sulfate) developed serious pulmonary infections at the site of tumor within two months of the start of treatment. Patient 1 had a lung abscess which developed at the site of necrotic tumor, proved at autopsy. Patient 2 had an empyema which stabilized after tube drainage and antibiotics. Cultures grew typical oral aerobic and anaerobic flora. Neither patient was alcoholic nor possessed factors predisposing to aspiration. Rapid tumor necrosis in conjunction with profound leukopenia may lead to infection that becomes apparent only when the white blood cell count returns to normal.

Following initial evidence of therapeutic activity with single agents, several drug combinations were tested in patients with SCCL (small cell anaplastic carcinoma of the lung).[1–4] Maurer et al.[5] demonstrated a significant response and survival advantage for patients treated with combination chemotherapy. A trial reported by Cohen et al.[6] showed that when higher doses were compared with standard doses of the same chemotherapy, the high-dose group had significantly higher response and survival rates. Cooperative group studies are currently assessing the role of intensive, high-dose chemotherapy in patients with SCCL. A critical question is whether or not the increased morbidity and mortality of ever more intensive therapy can be outweighed by improved response and survival rates.

In the trial of Cohen et al.,[6] fever was common in the high-dose group (16 of 23 patients), but only 1 patient developed a documented, nonfatal infection. Other reports, including the pilot study of Abeloff et al.,[7] disclosed a higher incidence of febrile episodes, again primarily nonfatal.

An Albany Medical College study comparing three courses of intensive- or standard-dose cyclophosphamide, methyl CCNU,[†] and vincristine sulfate followed by consolidative irradiation and six months of noncross-resistant chemotherapy was carried out between 1977 and 1980. The details of the treatment regimens are outlined in Figure 1, and 28 patients were randomized, 14 to each arm. Dosage modifications based on nadir blood count were made in the standard arm but not in the intensive-dose group, and severe leukopenia was therefore anticipated. Unexpected infections and pulmonary complications developed at a site of rapid tumor necrosis in 2 of the 28 patients and form the basis for this report.

Results

The mean WBC (white blood cell) nadir for the high-dose induction group, 900 per cubic millimeter, was significantly lower ($p < 0.01$) than for the standard-dose induction regimen (3,100 per cubic millimeter). Intrinsic or extrinsic bronchial obstruction was equally frequent, with nine cases in each group. Two patients on the intensive regimen developed unusual infectious complications related to tumor necrosis; their case histories are discussed and summarized in Table I. None of the patients on standard dose experienced pulmonary complications.

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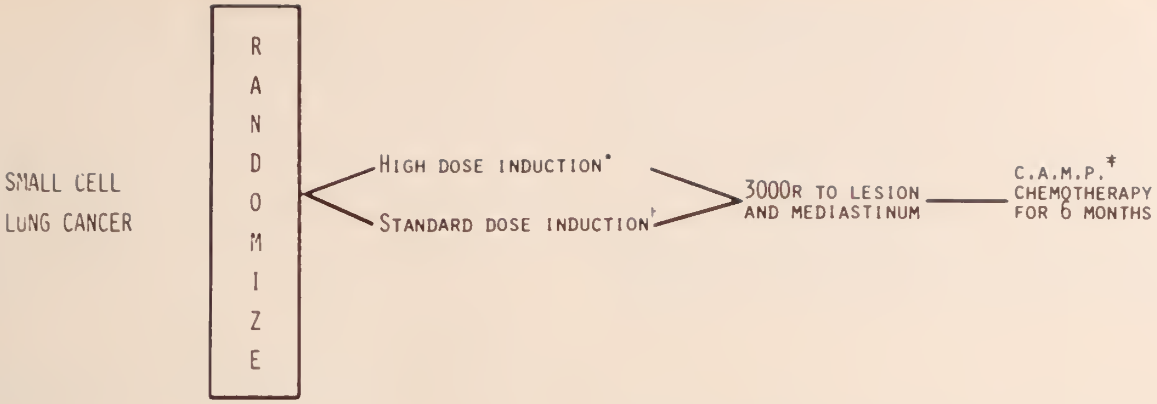
[*] Supported in part by United States Public Health Service General Clinical Research Center Grant 5M01RR00749 and Clinical Cancer Education Grant CA 17971.

[†] Methyl 1-(2-chloroethyl)3-(4-methylcyclohexyl)1-nitrosourea.



*High Dose Induction

Cyclophosphamide 2000 mg/M^2 IV

Vincristine 1.4 mg/M^2 IV

MeCCNU 100 mg/M^2 p.o.

Repeat every three weeks without dose modification for cytopenia

†Standard Dose Induction

Cyclophosphamide 750 mg/M^2 IV

Vincristine 1.4 mg/M^2 IV

MeCCNU 75 mg/M^2 p.o.

Repeat every three weeks with standard modification for cytopenia

‡C.A.M.P.

C = Cyclophosphamide: 300 mg/M^2 IV Days 1 & 8
A = Adriamycin: 20 mg/M^2 IV Days 1 & 8
M = Methotrexate: 15 mg/M^2 IV, Days 1 & 8
P = Procarbazine: 100 mg/M^2 p.o. Days 2 through 11

The program is repeated every 28 days, for six cycles.

FIGURE 1. Albany Medical College high-dose versus standard-dose induction therapy for small cell cancer of the lung.

Case 1. A 53-year-old man appeared with a left hilar mass and left upper lobe atelectasis. SCCL was documented at exploratory thoracotomy. He was admitted ten days after his first dose of intensive chemotherapy with fever and WBC count of 400 per cubic millimeter. No source was identified and the patient was treated empirically for one week with cefazolin sodium and tobramycin sulfate. One week after discharge he was readmitted with fever and increasing sputum production. His WBC count was then 9,600 and platelets 425,000 per cubic millimeter. Chest x-ray film showed a left upper lobe abscess. Bronchoscopy demonstrated extrinsic compression of the left upper lobe bronchus. The next day the patient expired suddenly with massive hemoptysis. Postmortem examination revealed a necrotic left lung mass from which several aerobic and anaerobic organisms were cultured (Table I). Only the adrenal glands contained residual tumor.

Case 2. A 56-year-old man was found to have a right hilar lesion with right lower and middle lobe pneumonitis. Bronchoscopic and supraclavicular node biopsies revealed SCCL. He received his first course of high-dose induction therapy, followed by a WBC nadir of 375 per cubic millimeter on day 7: on day 14 he had fever and cough, and chest x-ray film demonstrated diminution of the hilar mass and a new right pleural effusion. Thoracentesis revealed a purulent exudate with a WBC count of 3,175 cells per cubic millimeter, 99 percent neutrophils. *Streptococcus pneumoniae* was cultured from this fluid. He improved with chest tube drainage and cefazolin and was discharged after three weeks. He received a second course of intensive induction therapy due to progression of his tumor during recovery from the initial infection. Two weeks following his second treatment he developed increased drainage of foul-smelling exudate from his chest tube. Culture of this

TABLE I. Clinical information pertaining to two patients on high-dose induction chemotherapy experiencing infectious pulmonary complications

Patient No.	Chest X-ray at Diagnosis	Chest X-ray at Complication	Nadir WBC Count*	Organisms Cultured	Treatment	Outcome
1	Left hilar mass, LUL atelectasis	LUL abscess	400	*Bifidobacterium*, *Propionobacterium*, *Bacteroides* sp.	None	Massive hemoptysis and death before treatment began
2	Prominent right hilum; RML and RLL pneumonitis	Large right pleural effusion	375	*Streptococcus pneumoniae*, then *Clostridium perfringens*, *Bacteroides* sp., *Peptococcus* sp. after initial treatment	Chest tube, cefoxitin, clindamycin, penicillin G	Empyema stabilized; but death from SCCL

* Per cubic millimeter.
Abbreviations: LUL = left upper lobe; RML = right middle lobe; RLL = right lower lobe.

material grew several anaerobes. The patient was treated for four weeks with clindamycin and penicillin G. He improved symptomatically, and follow-up chest x-ray films showed first a decrease and then a stabilization of the pleural effusion. He died, however, two months later due to disseminated SCCL.

Comment

The spectrum of secondary pulmonary infections in the compromised host has been well described,[8,9] although new organisms and new strains of old organisms are frequently identified. Whereas abscess formation commonly accompanies progressive bronchial obstruction by lung cancer, our review of the literature fails to identify previous reports of lung abscess or empyema developing as an apparent direct consequence of cytotoxic chemotherapy for solid tumors. Multiple lung abscesses have been described, however, in the setting of high-dose steroid administration for nonneoplastic disorders.[10] The isolated occurrence of a lung abscess in this group of patients with known lung cancer and a high rate of postobstructive pneumonitis might not in itself be unusual. The development of this complication in 2 of the 14 patients receiving the more intensive regimen suggests that the intensity of the therapy is a contributing factor, although the difference between the high-dose and standard-dose groups is not statistically significant.

A number of factors may be responsible for the development of infections at a site of rapid tumor necrosis. Anaerobic, intravenously injected microorganisms have been shown to localize in a rapidly growing mouse tumor, although this has not been tested in other animal models.[11] The hypoxic environment in a rapidly growing tumor may be more conducive to the growth of anaerobic organisms, a situation that would be accentuated by the sudden production of a large amount of necrotic tumor. The profound leukopenia experienced by these patients may have contributed further to impaired clearance mechanisms, and the significantly greater leukopenia in the high-dose group supports this.

Both patients manifested their infections after the WBC count had returned to normal levels. The first patient had received broad-spectrum antibiotics during the period of profound granulocytopenia but this failed to eradicate the infection. It appears that clinical expression of the lung abscess or empyema required the presence of sufficient granulocytes, although the conditions for the infection may have been created earlier.

Other factors known to be related to the development of lung abscess or empyema, such as alcoholism, epilepsy, and bronchial obstruction, either intrinsic or extrinsic, were not present in these patients. There was no difference in the number of patients with bronchial obstruction in either group (nine in each). The explanation for the occurrence of these infectious complications in the high-dose group alone is more likely related to their treatment.

The second case illustrates effective management of these infectious complications. Standard treatment of empyema was instituted,[12] and, despite superinfection of the pleural fluid, the infectious process cleared with continued chest tube drainage, different antibiotics, and partial control of tumor growth with chemotherapy. The first case illustrates a known danger of lung abscesses: erosion into an artery and exsanguination. This patient died before any treatment could be instituted.

The primary effort involved in studies prospectively comparing high-dose with standard-dose chemotherapy in small cell cancer of the lung is to determine whether or not the added morbidity of the treatment will be outweighed by an increase in survival. Neither we[13] nor any of the large cooperative group studies have yet been able to demonstrate a prolongation of survival. The development of this infectious complication should be noted by investigators studying intensive chemotherapy induction regimens, especially in patients with SCCL.

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Mitral Annular Abscess

Echocardiographic detection

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Echocardiography is a very helpful technique for the diagnosis of endocarditis.[1] Direct visualization of a vegetation, or demonstration of a torn leaflet with prolapse into an adjacent chamber, are two ways in which the diagnosis may be established.

Endocarditis may be characterized pathologically by abscess formation in the annular ring of either the mitral or aortic valve. This article suggests that a ring abscess may be diagnosed in vivo by echocardiography as a new criterion for endocarditis. Recognition by noninvasive techniques of extension of an endocarditis into the annular area has important prognostic and surgical implications.

Materials and methods

Echocardiographic examinations were performed using a commercially available echograph (Smith Kline, Model 20A) and 2.25 MHZ-focused transducer. Continuous records were made on a Honeywell Model 1856 strip-chart recorder. M-mode scans of the left ventricle and outflow tract were performed with the transducer positioned along the left sternal border in the third or fourth intercostal space. During registration of each area, the direction of the transducer was noted and extreme degrees of angulation were avoided.

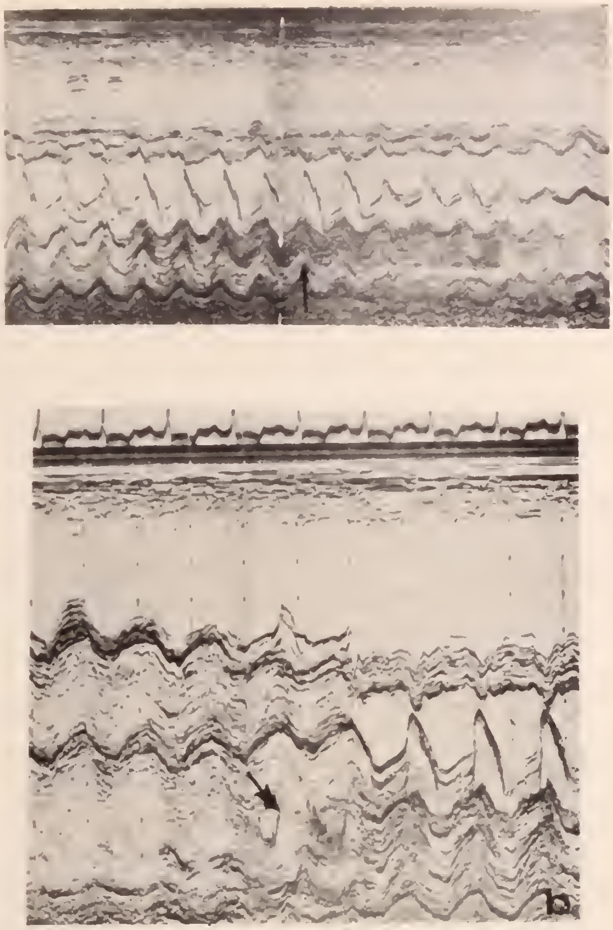

FIGURE 1. Case 1. Echocardiograms. (A) Thick, fuzzy echoes posterior to mitral valve in annular region (arrow) disappearing as transducers are swept to left ventricular cavity and outflow tract. (B) Shows flail posterior leaflet (arrow) of mitral valve into left atrium.

Case 1. A 29-year-old female was admitted to the hospital on March 8, 1979, with staphylococcal bacteremia and congestive heart failure. She had chronic renal failure secondary to cystinuria diagnosed in 1970, and had been on maintenance hemodialysis since 1974. In 1975 she underwent pericardiectomy for uremic pericarditis. Findings on physical examination revealed blood pressure of 160/110, cardiomegaly, a Grade III/VI holosystolic murmur at the apex, and a third heart sound. There were bilateral basal rales, hepatosplenomegaly, and ascites. Three blood cultures grew *Staphylococcus aureus* (coagulase positive) sensitive to vancomycin and gentamicin. The patient was started on vancomycin and gentamicin, but due to continued fever, chloramphenicol and rifampin were added after six days. An echocardiogram showed thickening of the anterior leaflet of the mitral valve and multiple dense echoes posterior to the valve in the region of mitral annulus (Fig. 1A). There were no vegetations on the leaflets of mitral or aortic valves. Mild left atrial enlargement was observed. After initial defervescence, she started spiking fever and renal failure worsened. She was started on hemodialysis. However, the patient tolerated hemodialysis poorly due to hypotension. The echocardiogram was repeated after 10 days, (March 23, 1979) and showed a flail posterior mitral valve leaflet extending into the left atrium (Fig. 1B). There was progressive diminution in density of the echoes in the annular region at approximately similar intensity of echoes from septal pericardial and other structures (Fig. 2). Because of the persisting dense echo in the annular region on April 30, 1979, cinefluoroscopy was carried out, which revealed calcific densities in the region of the mitral annulus.

Case 2. A 31-year-old female had systemic lupus erythematosus for six years, and chronic renal failure secondary to diffuse proliferative glomerulonephritis. She had frequent episodes of infection of her hemodialysis access. Four years prior to the present illness, findings on echocardiogram were normal (Fig. 3A). She was admitted to the hospital on December 8, 1977, for congestive heart failure. Physical examination revealed a hyperdynamic cardiac impulse in the sixth intercostal space, anterior axillary line. A soft first heart sound, Grade IV/VI holosystolic murmur at the apex radiating to the axilla, and an S_3 gallop were audible. Jugular venous pressure was elevated and the carotids were normal. Bilateral basal fine rales were heard. There was a tender liver 8 cm. below the right costal margin. Pedal edema was present.

Comparison of the echocardiogram with an examination four years earlier showed that the posterior mitral leaflet moved anteriorly in diastole, consistent with a flail leaflet secondary to ruptured chordae tendineae (Fig. 3B). The anterior mitral leaflet was normal. No vegetations were seen on the valve leaflets. Multiple abnormal dense echoes were seen posterior to the mitral valve in the region of the mitral annulus.

Cinefluoroscopy did not reveal any calcification. Two blood cultures were positive for *Staphylococcus aureus*, coagulase positive. Antibiotic therapy was initiated with nafcillin and gentamicin therapy resulting in a partial response. Subsequently, vancomycin was substituted for nafcillin. The patient defervesced and the findings on blood cultures became negative. The clinical status improved and she was discharged after three weeks. She was readmitted four days later with fever and malaise. She had a stormy hospital course developing septicemia, gastrointestinal hemorrhage, and obtundation, and expired. A post mortem examination was not performed.

A new echocardiographic finding suggesting abscess of the mitral ring was observed in three patients with chronic renal failure and staphylococcal endocarditis. The annulus showed soft, fuzzy ultrasonic densities which changed with the clinical condition, and was associated with a flail posterior leaflet in each case.

Case 3. A 43-year-old male with chronic renal failure, on hemodialysis for 10 years, developed a swelling over his bovine graft. Aspiration of the swelling yielded blood which grew *Staphylococcus aureus*, coagulase positive. Findings on several blood cultures were also positive for the same organism.

Physical examination revealed the apex impulse in the 6th left intercostal space in the anterior axillary line. There was a Grade II/VI systolic ejection murmur at the

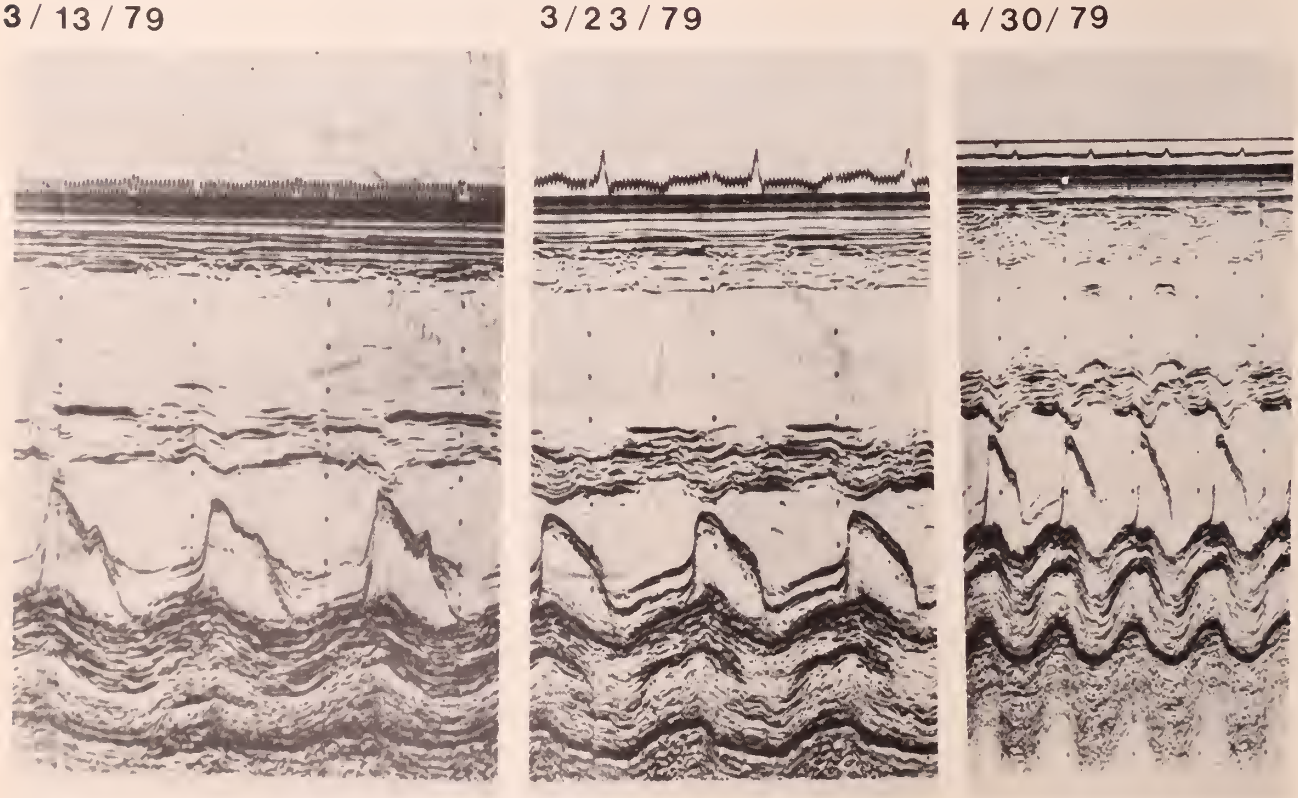

FIGURE 2. Case 1. Sequential echocardiograms showing rapid progressive resolution of soft, fuzzy echoes posterior to mitral valve in course of therapy. Shows residual density of annulus on April 30, 1979, which may represent calcification seen fluoroscopically.

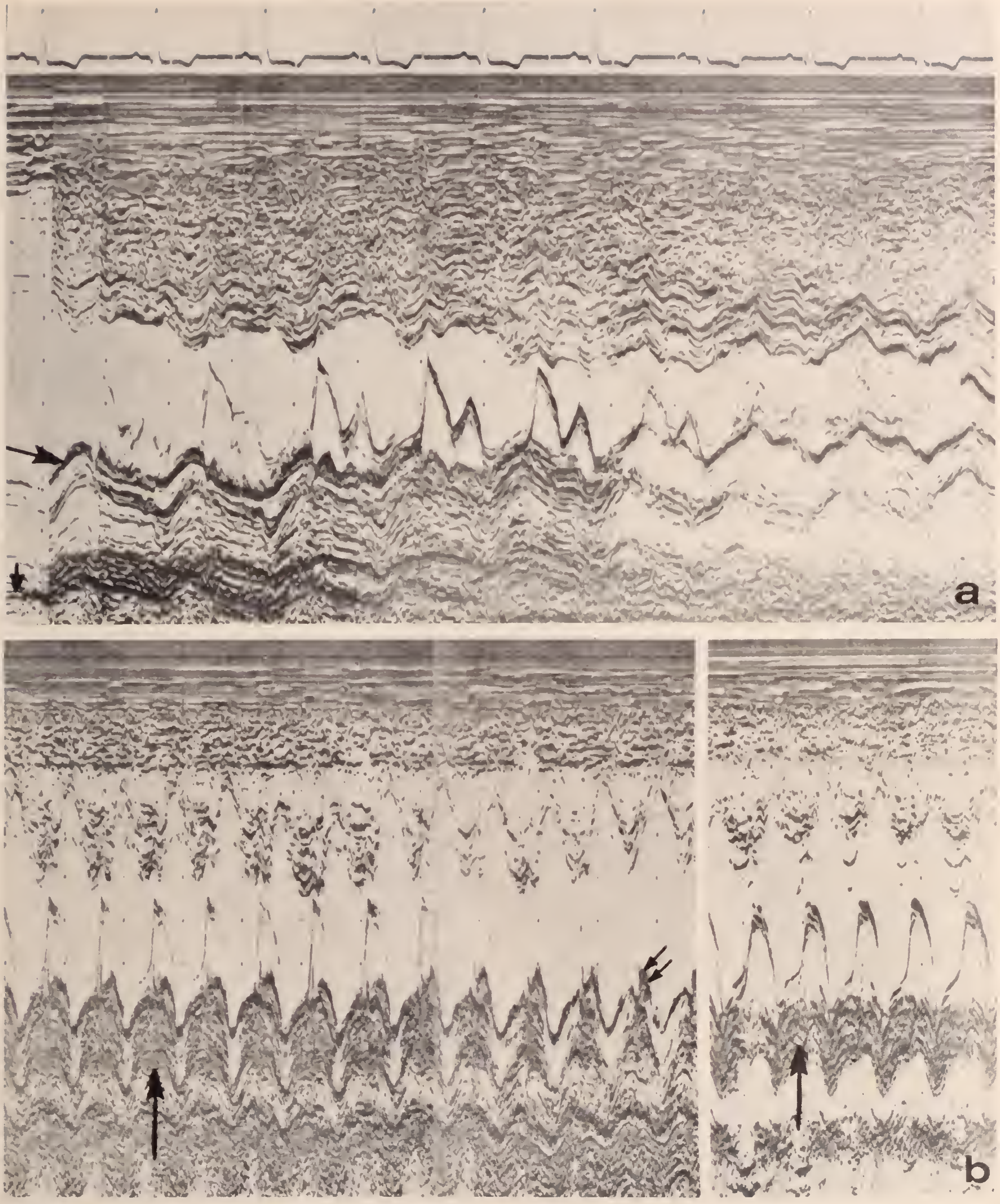

FIGURE 3. Case 2. (A) Echocardiogram three months prior to onset of endocarditis showing normal mitral annular region (large arrows); pericardial thickening (small arrow). (B) Two views of mitral apparatus during endocarditis showing thick, fuzzy echoes in annular region (large arrows) and flail posterior mitral leaflet (small double arrows).

apex and left sternal border. The patient had a history of penicillin allergy and was, therefore, started on vancomycin, 8 Gm. per day. Findings on quantitative blood cultures continued to reveal several hundred colonies of S. *aureus*. Serum antibacterial studies revealed no bactericidal activity in the serum, and the patient remained febrile. After desensitization, he was started on aqueous penicillin, and he defervesced on this therapy. The patient subsequently developed atrioventricular dissociation with slow ventricular response, which ultimately required a

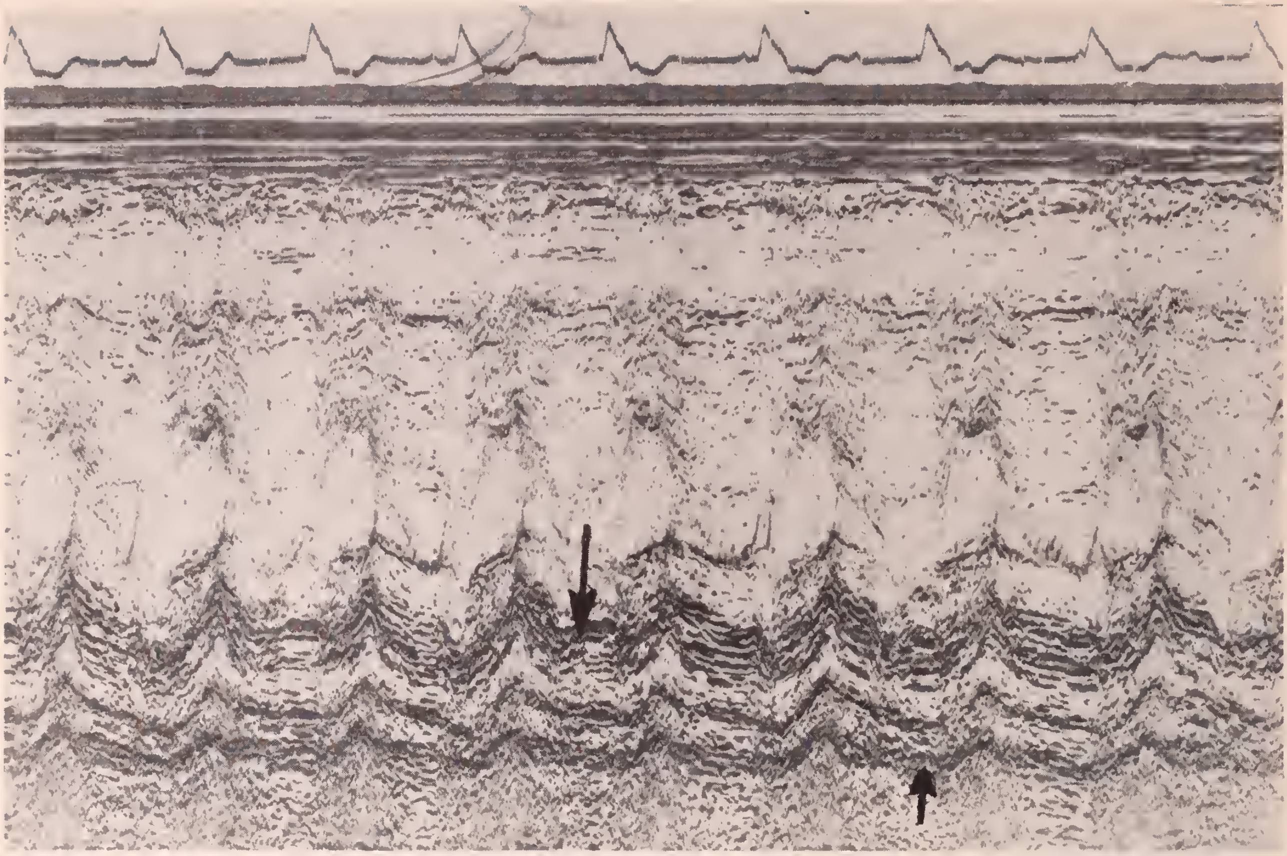

FIGURE 4. Case 3. Echocardiogram showing abnormal dense echoes posterior to mitral valve (downward arrow). There is pericardial thickening (upward arrow).

temporary transvenous pacemaker insertion. During the hospital stay, the patient developed erythematous nontender macular lesions over fingers and toes and became febrile again. On the sixth day of hospitalization the harsh systolic murmur increased in intensity with development of heart failure and deterioration of the patient's clinical condition. Echocardiogram revealed evidence of flail posterior mitral valve secondary to ruptured chordae tendineae. Thick abnormal echoes behind the mitral valve in the region of the mitral annulus were noted (Fig. 4).

Patient's heart failure worsened despite aggressive treatment and he died of cardiac arrest after two weeks of hospitalization; autopsy was not performed.

Comment

We believe our findings represent a new criterion for the diagnosis of mitral ring abscess developing in the course of infective endocarditis. The mass of dense, shaggy echoes behind the mitral valve in the region of the mitral annulus, moving with a character typical of mitral annulus, most likely represents a mitral annular abscess. These patients had clinically-proved endocarditis, although surgical or autopsy confirmation of the ring abscess was not obtained. The evidence that an acute process of infection was present, rather than chronic calcification, is strongly supported by the serial change in echocardiograms in two of the three cases. Variation in beam angulation and gain setting can make comparison of serial echocardiograms somewhat uncertain, but in the present study they are not sufficient to negate the significance of the serial changes.

Several criteria have been described for the echocardiographic diagnosis of bacterial endocarditis. Vegetations are commonly seen on the valves in endocarditis and are usually soft, fuzzy, or shaggy densities which heal with appropriate therapy. They may be seen on either the anterior or posterior mitral leaflet, or both. Occasionally, the densities of a more fibrotic vegetation give linear layer-line densities which may be confused with calcifications. The limitation of ultrasound technique requires that the vegetations be at least 3 mm. in diameter before they can be visualized on an echocardiogram. Also, vegetations may not be seen even in clinically proved endocarditis, so that the absence of vegetations does not exclude endocarditis. A flail mitral leaflet may be seen secondary to rupture of the chordae tendineae by the infective process. A flail posterior mitral leaflet is recognized by an abrupt early anterior movement of the posterior leaflet, with or without systolic fluttering movements of the leaflets. Rapid early diastolic closing motion excludes mitral stenosis as a cause of the early concordant motions of the two leaflets. The flail leaflet may prolapse into the left atrium and be visualized by sweeping the ultrasound probe toward the aorta and noting fragments of mitral valve in the atrium in systole. Endocarditis of the aortic valve is also associated with either direct visualization of vegetations or rupture of the cusp with prolapse into the left ventricular outflow tract during diastole.

All our patients had strong clinical evidence for endocarditis. All had blood culture test results positive for *S. aureus*, coagulase-positive. They were all febrile and had significant new cardiac murmurs which were noted to change in character in two patients. One patient had splenomegaly and another developed lesions suggestive of Osler's nodes. All patients developed congestive heart failure during the course of their illness. Our patient, Case 3, developed complete heart block, a finding which is highly suggestive of a ring abscess, extending to involve the bundle of His or the atrioventricular node in the interventricular septum.[2-5] An echocardiogram showed that all our patients developed a flail mitral valve leaflet during the course of their illness and abnormalities of the valve were also conspicuous. Since all our patients had chronic renal failure and were prone to develop metastatic calcinosis, it is possible that mitral annular calcification caused the strong echoes noted. However, in two of the patients, cinefluoroscopy with image amplification failed to reveal any annular calcification. Further, in two patients, including one who did have mitral annular calcification, the soft, fuzzy echoes were observed to change in character on serial study. In one case, an echocardiogram, prior to onset of endocarditis, revealed a normal mitral annulus, only to become abnormal with the onset of endocarditis. In the patient with fluoroscopic evidence of calcification, treatment of the endocarditis for four to six weeks resulted in clinical improvement and progressive definite decrease in the softer annular densities, leaving a residual thin but dense band of echoes. We believe there was calcification present in the annulus on which the ring abscess was superimposed. Care was taken to evaluate serial echocardiograms for comparability of technique, intracardiac landmarks, and similarly of gain and overall ultrasonic density on the recording. Thus, the changing nature of the echoes point to a resolution of the infective process, and this is supported by the clinical findings of improvement in this patient's condition.

The clinical features suggesting the presence of a valve ring abscess have been described previously.[6] These include involvement of aortic valve, recent valvular regurgitation, pericarditis, high degree atrioventricular block, and short duration of symptoms in severe illness. A patient has been described with isolated mitral ring abscess resulting from infection superimposed on a heavily calcified mitral annulus.[6]

The development of complete heart block or high degree atrioventricular block appearing suddenly in a patient with infective endocarditis is strongly suggestive of a ring abscess involving the conduction system.[6] Utley and Mills[7] found a rather short duration of symptoms resulting in severe illness or death in patients with ring abscess. Most cases of annular abscess are secondary to highly virulent organisms such as staphylococcus or pneumococcus, while less virulent organisms such as alpha-streptococcus, are very unlikely to cause a ring abscess.[7] Our patients conform to these clinical features with rather rapid onset of illness over four weeks, and severe disease and death in two of our three patients. The organism was *S. aureus* in all cases, and there was evidence of flail leaflets in each case.

Demonstration of a ring abscess makes surgical therapy for active endocarditis very hazardous. The focus of infection is not removed with the vegetations, and sutures are likely to penetrate the abscessed ring, and either not hold at all, or the valve prosthesis will develop a paravalvular leak later. In surgery for tricuspid endocarditis, it is feasible to remove the tricuspid valve without immediate replacement by a prosthesis, but in the mitral area this is not possible.

It is of interest that all three of our cases had chronic renal failure. Most likely the source of infection in all cases was an infected bovine graft used for angioaccess for dialysis. Bovine grafts have a high incidence of infections usually due to staphylococcus.[8]

Summary

Three patients are described who had chronic renal failure requiring maintenance hemodialysis, all of whom had staphylococcal endocarditis with flail mitral valves, and a new echocardiographic finding indicating abscess formation in the posterior mitral annulus. One of these ring abscesses was superimposed on a calcified annulus. The ring abscess was identified in these cases by M-mode echocardiography; it may be predicted that cross-sectional, real-time echocardiography might be more sensitive in detecting this manifestation of endocarditis, if not all forms.[9,10] While all the present cases involved the mitral valve, it is likely that ring abscess of the aortic annulus may be detected by echocardiography.

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Physicians warned to beware of faked illness

Emergency room physicians are cautioned once again to beware of faked illness, in a report in the April 10 Journal of the American Medical Association.

Physicians have long been aware that there are a few individuals who constantly seek out medical attention for a variety of contrived illnesses who are not actually sick at all.

When a patient appears in the emergency room with pain in the side, bloody urine, and a story of allergy to a common diagnostic procedure, the physician should be aware of the strong possibility of contrived illness, says Sumner Marshall, M.D., of the University of California School of Medicine, San Francisco.

We have encountered many such patients over the years. However, since every time these patients appear their stories and clinical findings seem so convincing to the hospital staff, we believe the characteristics that make up this 'profile' are worth describing," Dr. Marshall writes.

A man in his mid-20s arrived unaccompanied at the emergency room of a Berkeley, California, hospital on a Saturday afternoon, complaining of severe abdominal and flank pain with grossly bloody urine. He had no identification with him. He stated that he should not be given a common diagnostic test because of severe allergies. He said he had become ill the previous day in Florida, but had decided to get back home to California.

While his hospital admission papers were being processed, another physician passed by and recognized him as one he had examined a week earlier, while he was supposedly in Florida. The patient then made a rapid departure.

The patients, says Dr. Marshall, usually appear in the emergency room after office hours, often in the middle of the night, writhing in pain, with the story that they have just arrived from another city. They frequently have no identification.

Usually they are content to have an injection of pain reliever. Sometimes they press for hospital admission, but sign out if surgery is mentioned.

They manage the blood in urine finding by pricking a finger and dripping blood into the urine sample.

Hepatocellular Carcinoma in Young Adults

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The incidence of HCC (hepatocellular carcinoma) in the United States is considered low, particularly during the first four decades of life.[1] However, statistics indicate a steady rise during the period 1918 to 1953 in the United States[1,2] and elsewhere.[3]

This report discusses the cases of three patients with hepatocellular carcinoma, aged 16, 17, and 19 years, encountered among the unselected population of the southwestern part of Suffolk County, New York, over a period of two years from 1975 to 1977.

Case reports

Case 1. A 19-year-old man who was in good health experienced intermittent epigastric pain for three months prior to admission. The physical examination gave normal results except for a tender, enlarged liver.

Laboratory findings on admission were: hemoglobin 13.6 Gm. per deciliter; WBC (white blood cell) count 8,600; normal differential; LDH (lactic dehydrogenase) 337 I.U.; alkaline phosphatase 475 I.U.; SGPT (serum glutamic pyruvic transaminase) 75 I.U.; SGOT (serum glutamic oxaloacetic transaminase) 275 I.U.; total bilirubin 2 mg. per deciliter; direct bilirubin 0.6 mg. per deciliter; glucose 79 mg. per deciliter; prothrombin time normal; alpha fetoprotein negative; HBsAg (hepatitis B surface antigen) positive. The stool was positive for cysts of *Entamoeba histolytica*. Liver scan revealed hepatomegaly with filling defects in both lobes.

At exploratory laparotomy the frozen section of hepatic nodules revealed hepatocellular carcinoma. Splenomegaly and portal hypertension were present. The patient expired after surgery.

At autopsy, the liver, which weighed 1,700 Gm., was studded with yellow carcinomatous and regenerating nodules associated with postnecrotic cirrhosis. The tumor invaded the intrahepatic portal veins. The lungs demonstrated small metastatic nodules.

Microscopically the tumor was characterized by bile-producing, small basophilic cells arranged in adenoid or trabecular pattern. A dense infiltrate of chronic inflammatory cells and proliferating pseudoductules surrounded the scarred portal areas (Fig. 1).

Case 2. A 17-year-old man of Puerto Rican descent was admitted because of abdominal pain, vomiting, and weight loss of several weeks' duration. The patient stated he had consumed one pint of whiskey a day for nine years. He had a tender, moderately enlarged, nodular liver. There were no ascites, hepatic bruit, or periumbilical varices.

Laboratory: hemoglobin 13.3 Gm. per deciliter; WBC count 13,800 with 33 percent eosinophils; SGOT 81 I.U.; alkaline phosphatase 267 I.U.; LDH 195 I.U. Serum BUN (blood urea nitrogen), bilirubin, glucose, calcium, and prothrombin time were normal. The stool contained ova of *Schistosoma mansoni*, *Trichuris trichiura*, and *Strongyloides stercoralis*. A rectal biopsy showed granulomas with *S. mansoni* eggs. Serum CEA (carcinoem-

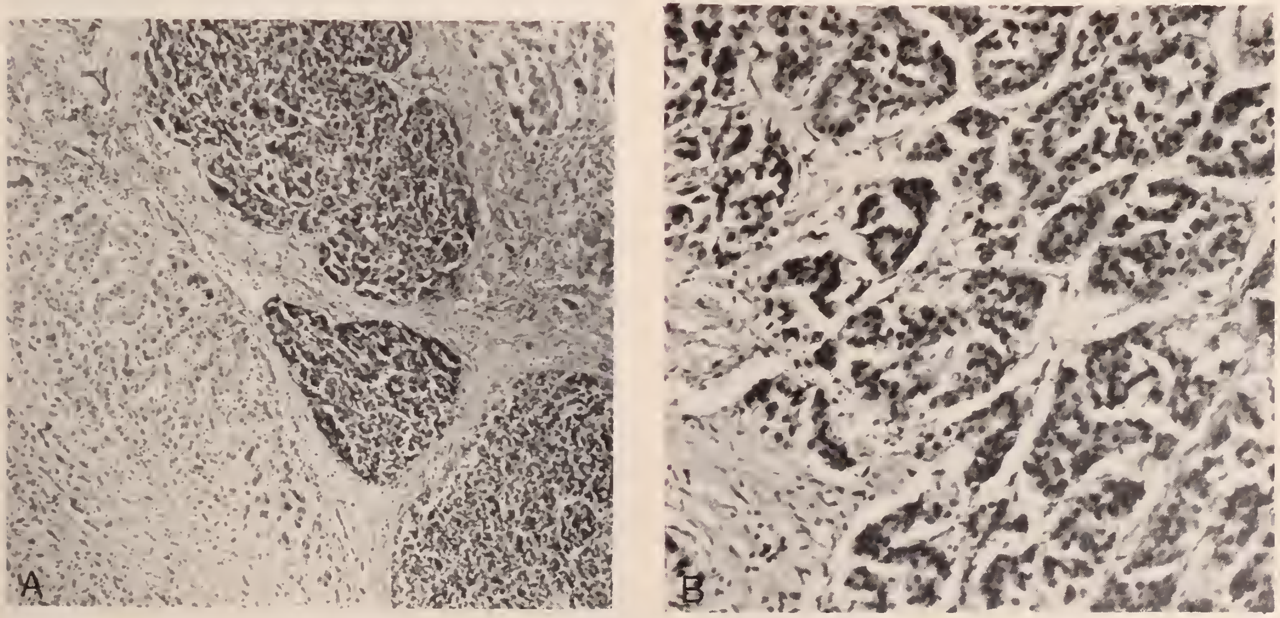

FIGURE 1. Case I. (A) Tumor nodules are surrounded by broad bands of scarring infiltrated by lymphocytic infiltrates (hematoxylin and eosin stain, original magnification ×200). (B) Higher view of tumor nodules reveals small cells arranged in adenoid and trabecular pattern (hematoxylin and eosin stain, original magnification × 400).

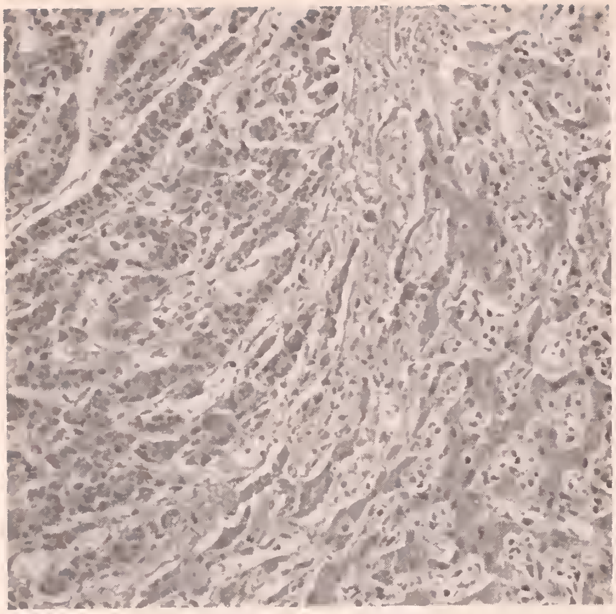

FIGURE 2. Case 2. Cords of basophilic cells form a tumor nodule adjacent to a chronically congested liver parenchyma (hematoxylin and eosin stain, original magnification × 400).

bryonic antigen) and alpha fetoprotein were normal. HBsAg was positive.

The liver scan revealed a large mass in the right lobe confirmed by angiography. At exploration, he was found to have multiple yellow-tan tumor nodules in both lobes of the liver. A frozen section of the tumor was interpreted as hepatoma. Five days after his discharge, he was readmitted, unconscious and hypoglycemic. The serum glucose was 12 mg. per deciliter, serum insulin 2 mU. per milliliter, alpha fetoprotein greater than 5,000 mg. per milliliter. The patient improved with dextran infusions, but expired 24 hours later.

At autopsy, the liver, which weighed 4,700 Gm., exhibited multiple yellow nodules of hepatocarcinoma measuring up to 30 cm. The tumor nodules were formed by cords of small basophilic cells with prominent nuclei which did not produce bile (Fig. 2). The liver parenchyma disclosed irregular scarring, phlebosclerosis, and schistosomal granulomas, but no portal cirrhosis.

Case 3. A 16-year-old Caucasian girl, a native of Long Island, appeared with a nine-month history of an enlarging epigastric mass and intermittent pain associated with diarrhea and bloody, tarry stools. Her history disclosed no jaundice, weight loss, drinking, oral contraceptives, or exposure to chemicals. Physical examination gave normal findings except for a liver mass 4 cm. below the xiphoid process.

Laboratory data on admission included: hemoglobin 12.2 Gm. per deciliter; WBC count 10,600; normal differential; glucose 80 mg. per deciliter; alkaline phosphatase 130 I.U.; SGOT 31 I.U.; SGPT 43 I.U.; LDH 213 I.U. Bilirubin, calcium, and prothrombin time were normal. Stool was negative for ova. Alpha fetoprotein and HBsAg were negative. An upper gastrointestinal series showed displacement of the stomach and duodenum. Liver scan showed a well-circumscribed, large filling defect of the left lobe defined as a solid tumor by sonography. Angiography showed an apparently encapsulated large vascular mass in the left lobe. Chest x-ray findings were normal.

In the United States, HCC (hepatocellular carcinoma) is a rarely encountered neoplasm among young adults. In a two-year period three patients, 16, 17, and 19 years in age, were diagnosed. Hepatic angiography and liver biopsy were particularly helpful in confirming the diagnosis of HCC. In the first case, subclinical chronic hepatitis associated with postnecrotic cirrhosis, and in the second case, chronic alcoholism, were the causes. The third case, which exhibited all the characteristics of polygonal cell type, a unique variety of HCC, disclosed no apparent etiologic findings.

At exploration, the left lobe was replaced by a lobulated, soft, yellowish tumor mass measuring 11 by 6 by 6 cm. Portions of the tumor had a distinct green color. The tumor consisted of large hexagonal eosinophilic cells with prominent vesicular nuclei showing rare mitoses. The tumor cells formed dense sheets with areas of pseudoglandular arrangement, some containing bile (Fig. 3). A diffuse fibrous stroma consisting of thin bands of collagen and fibroblasts subdivided the parenchyma. Broad bands of collagen divided the tumor masses in multiple nodules, some suggesting hyperplastic regenerating nodules. The adjacent hepatic parenchyma showed compression, reactive-type chronic inflammatory infiltrates, and occasional noncaseating granulomas. A few celiac lymph nodes contained metastatic carcinoma associated with noncaseating granulomas. After a left hepatectomy, the patient was treated with chemotherapy. She expired 34 months later.

Comment

The clustering of three cases of HCC in young

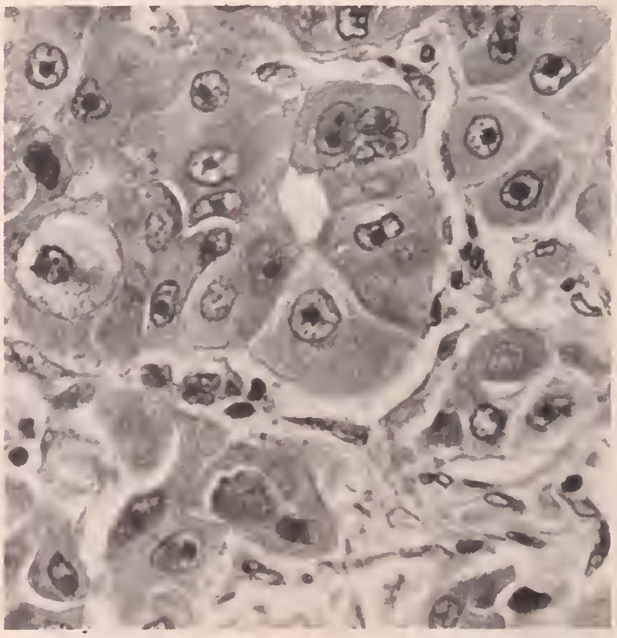

FIGURE 3. Case 3. Large, polygonal, eosinophilic hepatocarcinoma cells exhibit very large nuclei with prominent nucleoli and form an acinar pattern in center. (Periodic acid-Schiff stain, original magnification × 1,200.)

adults in the relatively short period of two years is considered unusual. In the past 10 years, 1970 to 1980, exclusive of the cases described in this report, there were 26 patients with a documented histologic diagnosis of HCC admitted to Southside Hospital, a teaching community hospital that serves an approximate population of 150,000 in the southwestern part of Suffolk County, New York. The ages of these patients ranged from 43 to 80 years. The unusually young age in the three cases in this report is further emphasized by statistical figures of the Cancer Registry of New York State which, exclusive of New York City, reported only five cases of HCC in the age group of 15 to 19 years from 1960 to 1972.[4] In African and certain Asian countries in which the incidence of HCC is high, most often the tumor occurs during the first three decades, whereas in the American and European continents, where the incidence is low, HCC appears most frequently after the fifth decade.[3] Therefore, the cases in this report, although statistically not significant, are consistent with the data that show HCC to be on the rise in the American continent, especially among the younger age group.

The laboratory detection of HCC is difficult.[5] Berman[5] found that no single test was specific for HCC, since they widely overlap with other diseases or, as illustrated by the increasing serum levels of alpha fetoprotein in Case 1, may not be positive until late in the course. Therefore, detection should rely on maintaining a high index of suspicion among patients with hepatic enlargement or pain, heavy drinking, or chronic hepatitis associated with postnecrotic cirrhosis, regardless of age. The liver scan and angiographic studies were helpful because the young age of the patients and associated findings such as amoebic cysts in Case 1 and schistosomiasis in Case 2 could have diverted attention from the primary diagnosis. Angiography was particularly useful in demonstrating the focal, therefore resectable, state of the tumor in the third case. During exploratory laparotomy, the diagnosis of HCC was confirmed by frozen sections in all cases. In two, bile production by the tumor was pathognomonic.[6]

Hypoglycemia noted in Case 1 is one of several potential biologic abnormalities encountered during the course of HCC.[7] Unger[8] has discussed in detail possible mechanisms inducing hypoglycemia. One of these, a postulated insulin-like hormone production by HCC,[8] has not been confirmed by most authors.[7] In this case, the serum insulin level was normal. It is felt that, at least in the majority of cases, intense glucose utilization by the rapidly growing tumor mass causes hypoglycemia.

The etiology of HCC in each case were different. Hepatic schistosomiasis, despite fibrosis, necrosis, and chronic inflammatory reaction, is not known to cause HCC.[9,10] The frequent association of HCC with cirrhosis, namely macronodular or postnecrotic cirrhosis, is widely acknowledged.[11,12] Because of greater parenchymal injury, inflammation, and regenerative activity, patients with this type of cirrhosis, as contrasted with the micronodular type, have a greater propensity to develop HCC.[12] The macronodular cirrhosis in Case 1 is presumed to be the result of a long-standing chronic subclinical viral hepatitis, as suggested by chronic triaditis (inflammation of the portal region) and positive HBsAg. The latter, however, is also a biologic marker frequently associated with HCC, the significance of which is complex and so far unsettled.[13,14] HBsAg positivity is found more frequently in younger persons and in patients with schistosomiasis.[14,15] Thus far, the relative risk of HCC is more than 250 times greater in carriers than in noncarriers.[16] A study of Obata and Nishioka,[17] studying the risk of developing HCC in patients with cirrhosis who are chronic carriers of hepatitis B virus versus noncarriers, has shown a higher incidence.

The micronodular or nutritional cirrhosis is often associated with long-standing chronic alcoholism and malnutrition.[12] However, alcohol, which is not considered a hepatocarcinogen, infrequently may give rise to HCC with or without being associated with a cirrhotic process.[9] As illustrated by Case 1, younger alcoholics may be more susceptible to developing HCC without cirrhosis.[18]

The third case, polygonal cell carcinoma of the liver, is a distinctive and rare type of hepatoma first observed by Edmondson and Steiner,[1] then Peters, Afroudakis, and Tatter[2] and recently detailed by Berman, Libbey, and Foster.[19] The histologic recognition of the polygonal cell type of HCC with fibrous stroma (PCFS) has significant clinical implications. According to Berman, Libbey, and Foster,[19] these patients have a male-to-female ratio of 1:2 and a mean patient age of 23 years; for HCC in general, the male-to-female ratio is 2:1 and the usual age of onset is in the forties.[19] Clinically, the age and sex distribution in this type requires differentiation from benign hepatic tumors, focal nodular hyperplasia, and hepatocellular adenoma. The average survival time for patients with PCFS is 68 months and the five-year survival rate is 63 percent. The often focal and left-lobe involvement of PCFS lends to surgical resection. Although of unknown cause, onset at a young age, a characteristic uniform differentiation, a nodular growth pattern interspersed with scar tissue, and stellate fibrosis tend to suggest a relationship with focal nodular hyperplasia.[19]

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Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic—Slight elevations in SGOT SGPT or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) 3 BOR

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*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae* 8

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Central Nervous System Infections

Etiologic and epidemiologic observations in New York State, 1978–1979

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The viral etiology of central nervous system infection was investigated in 1,425 patients in New York State, exclusive of New York City, during 1978 to 1979. Diagnostic findings were obtained in 450 of these patients. Enteroviruses continued to be the most common neuropathogenic agents. An unusual number of unidentified enterovirus-like viruses were observed in children and young adults. Herpes simplex virus and California encephalitis virus were the most frequently encountered nonenteroviruses. Respiratory syncytial virus was indicated in a fatal case of Reye's syndrome. Evidence for the potential of influenza A/USSR/77 to be associated with Reye's syndrome is presented. Measles virus was less often encountered than in previous years, which is consistent with the overall decrease in measles morbidity in the State and the nation.

During 1978 and 1979, data were collected from studies of 1,425 patients with CNS (central nervous system) disease. This effort was part of a continuing collaboration between the State of New York Department of Health virus laboratory and the Erie County Virology Laboratory. The findings were derived from 1,330 patients studied in the New York State laboratories and 95 in the Erie County facility. This report is the latest in the Department of Health's efforts to elucidate the etiology and epidemiology of CNS infections.[1–6]

As in previous years, aseptic meningitis and encephalitis were the most common diagnoses of patients from whom specimens were referred for virologic or serologic examination. Enteroviruses and herpes simplex virus remain the most frequently detected agents in viral CNS infections. Important changes from the findings and trends in the past were:

1. The incidence of California encephalitis virus increased greatly and a change in age distribution of the cases was noted.
2. A sharp decline in the number of cases with measles virus indicated a reversal of the three-year trend of increasing measles morbidity.
3. Influenza A/USSR/77 ("Russian" influenza) made its first appearance and was implicated in a substantial number of the cases with signs of CNS infection. Influenza A was also the most frequently observed virus in patients with Reye's syndrome.
4. The rate of cases with Reye's syndrome remained the same and did not continue the downward trend observed in 1976 to 1977; however, the mortality rate decreased substantially.
5. An unusual number of unidentified viruses were isolated which may represent a new type or types of the enteroviruses.

Methods and techniques of virus isolation and for serology followed standard protocols and have been described previously.[5]

Findings

Laboratory studies on 708 patients in 1978 yielded 173 diagnostic findings for 167 patients. In 1979, examination of specimens from 717 patients led to observations of 308 findings in 283 patients. For both years the diagnostic case rate was 31.5 percent (450 of 1,425 patients). In 26 patients more than one agent was indicated. A confirmed diagnosis as signified by a fourfold or greater increase in antibody titer or by virus isolation from CSF (cerebrospinal fluid), brain, urine, or skin swab accounted for 190 findings, and a presumptive diagnosis was made by the 291 observations either of isolation of virus from stool and/or throat or of unusually high levels or types of antibody (Table I). Enteroviruses were indicated in 273, or 56.8 percent, and nonenteroviruses in 208, or 43.2 percent of the findings. Among viral agents of the latter group, herpes simplex and California encephalitis virus were with 62 (30 percent) and 33 (16 percent) observations the most common pathogens.

Seasonal prevalence. In 1978, specimens from 364 patients, 51 percent of the year total, were referred from July to October and these yielded 110 (63.6 percent) of the 173 annual findings (Table II). During this peak period, enteroviruses accounted for 60 percent of the observations. A large number of different serotypes were identified, with Echo 9 the most common, appearing in 28 cases. California encephalitis virus was the most significant nonenterovirus pathogen detected during this time, accounting for 17.3 percent of all findings. Powassan virus was the only other arbovirus observed in 1978. It was indicated by serologic evidence in a young male

TABLE I. Laboratory diagnostic findings in patients with central nervous system disease, 1978–1979, New York State exclusive of New York City[*]

Laboratory Diagnostic Category	Number of Patients	Agents Indicated (Number of Cases)
Confirmed diagnoses		
Fourfold or greater antibody rise	64	Coxsackie B (1), influenza A (14), mumps (2), respiratory syncytial (3), measles (3), California encephalitis (3), Powassan (1), lymphocytic choriomeningitis (1), adeno (7), herpes simplex (20), cytomegalo (2), varicella-zoster (2), Epstein-Barr (1), psittacosis-*Chlamydia trachomatis* (1), *Coxiella burneti* (1), *Mycoplasma pneumoniae* (2)
Virus isolation from		
CSF[†] and/or tissue	73	Coxsackie A9 (1), Coxsackie B2 (2), Coxsackie B4 (12) Coxsackie B5 (2), Echo 4(1), Echo 5 (6), Echo 6 (4), Echo 7 (16), Echo 9 (20), Echo 11 (25), Echo 12 (1), Echo 14 (5), Echo 17 (1), Echo 25 (1), Echo 30 (3), Echo 31 (3), rubella (1), herpes simplex (10), cytomegalo (3), unidentified (9)
CSF and stool or throat swab	46	
Urine	4	
Skin swab	3	
Total confirmed diagnoses	190	
Presumptive diagnoses		
Fourfold or greater CF antibody decline or unusual antibody	114	Influenza A (12), mumps (1), respiratory syncytial (1), measles (5), California encephalitis (30), adeno (9), herpes simplex (28), varicella-zoster (8), cytomegalo (8), *C. burneti* (1), *M. pneumoniae* (11)
Virus isolation from stool or throat swab	156	Polio 1 (2), polio 2 (2), polio 3 (3), Coxsackie A2 (2), Coxsackie A4 (4), Coxsackie A7 (1), Coxsackie A9 (2), Coxsackie A10 (3), Coxsackie A16 (2), Coxsackie B2 (6), Coxsackie B4 (5), Coxsackie B5 (4), Echo 2 (1), Echo 4 (7), Echo 5 (2), Echo 6 (2), Echo 7 (13), Echo 9 (14), Echo 11 (21), Echo 12 (1), Echo 14 (1), Echo 15 (1), Echo 17 (1), Echo 24 (2), Echo 25 (3), Echo 30 (7), entero 71 (3), C/Albany/74 (1), influenza A/Texas/77 (1), influenza A/USSR/77 (3), parainfluenza 3 (2), rubella (1), adeno 2 (2), adeno 11 (1), adeno untyped (1), herpes simplex (4), unidentified (25)
Virus isolations from stool and throat swab	21	Coxsackie A16 (1), Coxsackie B2 (5), Coxsackie B4 (1), Echo 5 (1), Echo 7 (5), Echo 11 (1), Echo 30 (2), entero 71 (1), unidentified (4)
Total presumptive diagnoses	291	
TOTAL DIAGNOSES	481	
Total patients	450[**]	

[*] Data from New York State and Erie County laboratories.
[†] CSF = cerebrospinal fluid.
[**] 26 patients had multiple findings.

patient. Early in 1978, a significant number of CNS infections were associated with respiratory viruses, especially influenza A. Herpes simplex was encountered throughout the year, which is its usual pattern, and was associated with 25 cases, or 14.5 percent of the positive cases.

Analysis of the 1979 results discloses an early appearance of both enteroviruses and arboviruses in May and a prolonged period of high incidence. The seasonal prevalence of viral CNS infections was even more noticeable than in 1978: 427 patients, or 60 percent, were referred from July through October and they accounted for 233, or 76 percent, of all findings in 1979. Among enteroviruses, Echo 11, with 38 cases, and Echo 7, with 33 cases, were the most frequently encountered. In addition, from 38 patients isolates were obtained which could not be identified. These agents show the growth characteristics of the enterovirus group and may represent a new type or types of this group. California encephalitis virus was the only arbovirus observed and was indicated in 13 patients. There were fewer findings for influenza A than in the previous year. Herpes simplex virus was the most common nonenterovirus with findings in 37, or 13 percent, of the 283 positive cases.

Age and sex distribution. As in the past, most specimens came from patients less than 30 years old (Table III) and males were predominant among the patients 15 years or younger. There was a definite age and sex preference in patients with diagnostic findings. Enteroviruses prevailed in children over nonenteroviruses while the reverse was found in patients 60 years or older. In the 30- to 60-year-old adults, entero- and nonenteroviruses were about equally represented in the diagnostic findings. Among patients between 16 and 60 years of age, herpes simplex was more prevalent in females (25 cases: 69.4 percent) than in males (10 cases). California encephalitis virus showed no significant age or sex preference, except that there appeared to be fewer cases below 5 or over 60 years of age.

Meningitis and encephalitis was the diagnosis for over 75 percent of all cases studied (Table IV). Diagnostic findings were recorded in 39.6 percent of aseptic meningitis patients, 21.6 percent of enceph-

TABLE II. Seasonal distribution of patients with central nervous system disease and of diagnostic findings, 1978–1979, New York State exclusive of New York City[*]

Year and Month of Onset of Illness	Number of CNS[†] Patients with Virologic and/or Serologic Studies	Total Number of Laboratory Diagnostic Findings	Agents Indicated (Number of Cases)
1978			
January	55	15 (14 patients)	Influenza A (12), respiratory syncytial (1), adeno (1), varicella-zoster (1)
February	44	10 (9 patients)	Coxsackie A2 (1), influenza A/Texas/77 (1), influenza A/USSR/77 (1), parainfluenza 3 (1), respiratory syncytial (1), adeno (1), herpes simplex (3), cytomegalo (1)
March	50	6	Influenza A (3), influenza A/USSR/77 (1), respiratory syncytial (1), cytomegalo (1)
April	32	7 (6 patients)	Coxsackie A16 (1), measles (2), adeno (1), adeno 11 (1), varicella-zoster (1), *C. burneti* (1)
May	35	5	Influenza A (1), parainfluenza 3 (1), herpes simplex (3)
June	54	7	Echo 9 (1), influenza A (1), adeno (1), herpes simplex (3), varicella-zoster (1)
July	71	20 (19 patients)	Coxsackie A10 (1), Coxsackie A16 (1), Coxsackie B2 (1), Echo 4 (1), Echo 6 (1), Echo 9 (2), Echo 11 (1), Echo 25 (1), Echo 30 (1), Echo 31 (1), California encephalitis (3), adeno (1), herpes simplex (3), varicella-zoster (1), *C. burneti* (1)
August	127	44 (42 patients)	Coxsackie A4 (1), Coxsackie A9 (1), Coxsackie B2 (2), Coxsackie B4 (1), Echo 4 (5), Echo 6 (2), Echo 7 (1), Echo 9 (9), Echo 11 (4), Echo 25 (1), Echo 30 (1), C/Albany/74 (1), mumps (1), California encephalitis (6), adeno (1), herpes simplex (7)
September	97	26	Coxsackie A9 (1), Coxsackie B4 (1), Echo 9 (7), Echo 11 (1), Echo 14 (1), Echo 25 (2), Echo 31 (1), California encephalitis (5), Powassan (1), adeno (1), herpes simplex (3), cytomegalo (1), *M. pneumoniae* (1)
October	69	20	Echo 9 (7), Echo 11 (2), Echo 30 (3), California encephalitis (5), adeno (1), herpes simplex (1), *M. pneumoniae* (1)
November	42	11	Echo 9 (2), Echo 31 (1), measles (1), California encephalitis (1), herpes simplex (1), varicella-zoster (1), cytomegalo (2), *M. pneumoniae* (2)
December	32	2	Echo 14 (1), herpes simplex (1)
1978 TOTALS	708	173 (167 patients)	Echo 9 (28), herpes simplex (25), California encephalitis (20), influenza A (20), other (80)
1979			
January	37	6	Coxsackie B (1), influenza A (1), measles (1), adeno (1), herpes simplex (1), *M. pneumoniae* (1)
February	40	16 (15 patients)	Polio 3 (1), influenza A (6), influenza A/USSR/77 (1), measles (1), adeno (2), cytomegalo (2), varicella-zoster (1), *M. pneumoniae* (2)
March	31	9	Coxsackie A4 (1), influenza A (2), rubella (2), lymphocytic choriomeningitis (1), herpes simplex (1), *C. trachomatis* (1), *M. pneumoniae* (1)
April	33	7	Mumps (1), adeno (1), adeno 2 (1), herpes simplex (2), varicella-zoster (1), *M. pneumoniae* (1)
May	30	6 (5 patients)	Coxsackie A4 (1), Echo 9 (1), measles (2), California encephalitis (1), adeno (1)
June	45	11	Echo 7 (2), California encephalitis (3), adeno (1), herpes simplex (3), cytomegalo (1), unidentified (1)
July	76	28	Coxsackie A2 (1), Coxsackie B2 (1), Coxsackie B4 (2), Echo 6 (1), Echo 7 (4), Echo 11 (1), Echo 12 (1), Echo 14 (2), Echo 17 (1), entero 71 (1), herpes simplex (3), varicella-zoster (1), unidentified (9)
August	168	104 (93 patients)	Polio 1 (1), polio 2 (1), polio 3 (1), Coxsackie A4 (1), Coxsackie A7 (1), Coxsackie A10 (1), Coxsackie A16 (1), Coxsackie B2 (6), Coxsackie B4 (9), Coxsackie B5 (2), Echo 4 (1), Echo 5 (2), Echo 6 (1), Echo 7 (13), Echo 9 (5), Echo 11 (14), Echo 14 (1), Echo 17 (1), Echo 30 (2), entero 71 (2), respiratory syncytial (1), California encephalitis (6), adeno (2), adeno 2 (1), herpes simplex (7), cytomegalo (2), *M. pneumoniae* (2), unidentified (17)

(*continued*)

TABLE II. *continued*

Year and Month of Onset of Illness	Number of CNS[†] Patients with Virologic and/or Serologic Studies	Total Number of Laboratory Diagnostic Findings	Agents Indicated (Number of Cases)
September	104	64 (58 patients)	Coxsackie A10 (1), Coxsackie B2 (2), Coxsackie B4 (5), Coxsackie B5 (4), Echo 5 (3), Echo 7 (7), Echo 11 (12), Echo 14 (1), Echo 24 (1), Echo 30 (4), California encephalitis (2), adeno (1), herpes simplex (9), cytomegalo (1), varicella-zoster (1), Epstein-Barr (1), unidentified (9)
October	79	37 (35 patients)	Coxsackie B2 (1), Echo 2 (1), Echo 4 (1), Echo 5 (4), Echo 6 (1), Echo 7 (6), Echo 11 (10), Echo 12 (1), Echo 30 (1), entero 71 (1), California encephalitis (1), herpes simplex (6), cytomegalo (1), *M. pneumoniae* (1), unidentified (1)
November	45	14 (11 patients)	Polio 1 (1), polio 2 (1), polio 3 (1), Echo 7 (1), Echo 11 (1), Echo 15 (1), Echo 24 (1), measles (1), herpes simplex (3), varicella-zoster (1), *M. pneumoniae* (1), unidentified (1)
December	30	6 (5 patients)	Coxsackie A9 (1), Echo 11 (1), mumps (1), herpes simplex (2), cytomegalo (1)
1979 TOTALS	717	308 (283 patients)	Echo 11 (39), unidentified (38), herpes simplex (37), Echo 7 (33), California encephalitis (13), other (148)

[*] Data from New York State and Erie County laboratories.

[†] CNS = central nervous system.

alitis, and 14.0 percent of patients with paralysis. The rate of encephalitis and meningoencephalitis among patients with findings of California encephalitis and herpes simplex viruses was high, 36.4 and 37.1 percent, respectively, and lower in patients with infections by the prevalent enteroviruses: Echo 11, 23.4 percent; Echo 9, 11.8 percent; and Echo 7, 8.8 percent.

Mortality. There were 9 patients with fatal outcome of disease in 1978 and 13 in 1979. Their clinical diagnoses were: encephalitis, 13 cases; meningoencephalitis, 2; meningitis, 4; Reye's syndrome, 2; and quadriplegia, 1. Herpes simplex virus was indicated in 5 of the 8 cases with diagnostic findings. Influenza A or respiratory syncytial virus was diagnosed in the two patients with Reye's syndrome, and cytomegalovirus was indicated in an immunosuppressed 76-year-old woman with meningitis.

Reye's syndrome and Guillain-Barré syndrome. Studies of 18 Reye's syndrome cases showed 8 of 10 positive cases were associated with influenza A virus (Table V). One of these patients had also evidence of varicella-zoster virus while the two remaining cases were associated with respiratory syncytial virus or *Mycoplasma pneumoniae.*

Guillain-Barré syndrome was diagnosed in 28 patients. Four of these cases yielded diagnostic findings: measles virus was indicated in two male patients and Echo 2 and *M. pneumoniae* each in one patient.

Polioviruses were isolated from three patients. Two patients had recently received the trivalent oral polio vaccine and shed all three types of poliovirus. From one of these patients Echo 7 virus was also isolated from the stool. Poliovirus type 3 was isolated from the third case. A sibling of this patient had received the oral polio vaccine several weeks prior to onset of illness in the patient.

Multiple diagnostic findings. In 26 patients, including the two above listed patients with poliovirus isolations, multiple findings were observed. In 18 of these patients at least one finding indicated a virus or group of virus which was prevalent at the time of illness: enteroviruses, 15 findings; California encephalitis virus, 5; or influenza A virus, 2. Herpes simplex virus, which was the most common agent without seasonal prevalence, was indicated in 10 of the patients with multiple findings.

Comment

Results of laboratory investigations of CNS infections indicated the etiology in 31.5 percent of the cases. Consistent with past experience, the highest diagnostic rate, 52 percent, was in cases of meningoencephalitis.

One significant change from our previous observations is the decrease in measles-associated CNS disease. This undoubtedly is a reflection of the downturn in the number of measles cases since 1978. The number of reported cases of measles in 1979 was 13,597, the lowest number ever recorded for this disease in the United States.[7]

The neuropathogenicity of influenza viruses was evident in the observation of 30 patients with diagnostic findings for influenza A. In 26 of these cases the diagnosis was based on antibody studies by complement-fixation tests which are type specific but do not differentiate between the different variants of influenza A. However, virus isolation attempts by the New York State Department of Health virus diagnostic service on specimens from influenza patients with and without CNS complications indicated occurrence of two different influenza A viruses. The previously prevalent influenza A/Texas/77 was widespread until the middle of February, 1978, and

TABLE III. Laboratory diagnostic findings by age and sex of patient, 1978–1979, New York State exclusive of New York City*

Patient Group (Years and Sex)	Number of Patients with Laboratory Diagnostic Studies	Total Number of Laboratory Diagnostic Findings	Agents Indicated (Number of Cases) Enteroviruses	Agents Indicated (Number of Cases) Nonenteric Viruses
0 to 5				
F	94	50 (42 patients)	Polio 1 (1), polio 2 (1), polio 3 (1), Coxsackie A2 (1), Coxsackie A4 (1), Coxsackie A9 (1), Coxsackie A10 (1), Coxsackie A16 (1), Coxsackie B (1), Coxsackie B2 (4), Coxsackie B4 (2), Coxsackie B5 (1), Echo 2 (1), Echo 7 (9), Echo 11 (2), Echo 14 (1), Echo 30 (2), entero 71 (2), unidentified (2)	Influenza A/Texas/77 (1), parainfluenza 3 (1), respiratory syncytial (1), measles (1), California encephalitis (1), adeno (2), adeno 11 (1), herpes simplex (4), cytomegalo (3)
M	151	77 (73 patients)	Coxsackie A2 (1), Coxsackie A4 (2), Coxsackie A7 (1), Coxsackie A10 (1), Coxsackie A16 (2), Coxsackie B2 (8), Coxsackie B4 (5), Coxsackie B5 (2), Echo 5 (4), Echo 7 (10), Echo 9 (4), Echo 11 (13), entero 71 (1), unidentified (3)	Influenza A (1), parainfluenza 3 (1), respiratory syncytial (2), rubella (1), California encephalitis (1), adeno (4), adeno 2 (2), herpes simplex (4), cytomegalo (3), *M. pneumoniae* (1)
6 to 15				
F	112	38 (37 patients)	Polio 3 (1), Coxsackie B4 (1), Echo 6 (2), Echo 7 (1), Echo 9 (3), Echo 11 (4), Echo 17 (1), Echo 30 (1), unidentified (1)	Influenza A (9), influenza A/USSR/77 (1), California encephalitis (5), adeno (2), herpes simplex (3), cytomegalo (1), *M pneumoniae* (2)
M	185	66 (61 patients)	Coxsackie A9 (1), Coxsackie B4 (2), Coxsackie B5 (2), Echo 4 (2), Echo 6 (2), Echo 7 (2), Echo 9 (9), Echo 11 (7), Echo 12 (1), Echo 14 (3), Echo 31 (1), unidentified (10)	Influenza A (5), influenza A/USSR/77 (1), respiratory syncytial (1), California encephalitis (4), Powassan (1), adeno (2), herpes simplex (4), varicella-zoster (4), *M. pneumoniae* (2)
16 to 30				
F	218	57 (54 patients)	Polio 1 (1), polio 2 (1), polio 3 (1), Coxsackie A10 (1), Coxsackie B4 (4), Echo 4 (2), Echo 5 (1), Echo 7 (1), Echo 9 (3), Echo 11 (6), Echo 25 (1), Echo 30 (3), Echo 31 (1), entero 71 (1), unidentified (2)	Influenza A (2), influenza A/USSR/77 (1), measles (1), California encephalitis (5), adeno (2), herpes simplex (14), varicella-zoster (1), Epstein-Barr (1), *M. pneumoniae* (1)
16 to 30				
M	204	73 (68 patients)	Coxsackie B4 (2), Echo 4 (3), Echo 5 (1), Echo 6 (1), Echo 7 (5), Echo 9 (9), Echo 11 (6), Echo 12 (1), Echo 15 (1), Echo 17 (1), Echo 25 (2), Echo 30 (4), Echo 31 (1), C/Albany/74 (1), unidentified (11)	Influenza A (1), mumps (2), measles (1), rubella (1), California encephalitis (9), adeno (1), herpes simplex (5), varicella-zoster (1), cytomegalo (1), *C. burneti* (1), *M. penumoniae* (1)
31 to 60				
F	164	42 (40 patients)	Coxsackie B4 (1), Echo 4 (1), Echo 5 (1), Echo 7 (1), Echo 9 (4), Echo 11 (1), Echo 14 (1), Echo 24 (1), unidentified (7)	Measles (2), influenza A (1), Claifornia encephalitis (3), adeno (3), herpes simplex (11), cytomegalo (1), *M. pneumoniae* (3)
M	143	32 (31 patients)	Coxsackie A9 (1), Coxsackie B4 (1), Coxsackie B5 (1), Echo 5 (1), Echo 7 (5), Echo 9 (1), Echo 11 (6), Echo 25 (1), Echo 30 (1)	California encephalitis (3), lymphocytic choriomeningitis (1), herpes simplex (6), varicella-zoster (1), cytomegalo (2), *M. pneumoniae* (1)
>60				
F	48	10 (9 patients)	. . .	Influenza A (2), California encephalitis (1), herpes simplex (4), varicella-zoster (1), cytomegalo (1), *C. trachomatis* (1)
M	49	19 (18 patients)	Echo 14 (1)	Influenza A (4), measles (3), California encephalitis (1), adeno (1), herpes simplex (6), varicella-zoster (2), cytomegalo (1)
Unknown				
F	24	7	Coxsackie A4 (1), Coxsackie B2 (1), Echo 5 (1), Echo 24 (1), Echo 30 (1)	Mumps (1), *M. pneumoniae* (1)
M	33	10	Echo 6 (1), Echo 9 (1), Echo 11 (2), unidentified (2)	Influenza A (1), herpes simplex (1), *C. burneti* (1), *M. pneumoniae* (1)
Summary				
F	660	204 (189 patients)		
M	765	277 (261 patients)		
TOTALS	1,425	481 (450 patients)		

* Data from New York State and Erie County laboratories.

TABLE IV. Laboratory diagnostic findings by diagnosis of patient, 1978–1979, New York State exclusive of New York City*

Agent Indicated	Diagnosis of Patient† E	ME	M	P	GB	R	NS	Total
Poliovirus								
1	...	...	2	...	...	...	...	2
2	...	...	2	...	...	...	...	2
3	...	...	2	...	...	...	1	3
Coxsackie								
A2	1	...	...	...	...	...	1	2
A4	2	...	2	...	...	...	...	4
A7	...	...	1	...	...	...	...	1
A9	1	...	2	...	...	...	...	3
A10	1	...	2	...	...	...	...	3
A16	...	1	2	...	...	...	...	3
Coxsackie								
B2	3	...	9	...	...	...	1	13
B4	2	1	12	1	...	...	2	18
B5	...	1	5	...	...	...	...	6
Untyped	...	...	...	1	...	...	...	1
Echo								
2	...	...	...	...	1	...	...	1
4	...	1	7	...	...	...	...	8
5	2	...	5	...	...	...	2	9
6	...	...	6	...	...	...	...	6
7	...	3	28	...	...	...	3	34
9	2	2	29	...	...	...	1	34
11	4	7	33	1	...	...	2	47
12	...	...	2	...	...	...	...	2
14	...	1	4	...	...	...	1	6
15	...	...	...	...	...	...	1	1
17	...	2	...	...	...	...	...	2
24	1	...	1	...	...	...	...	2
25	...	1	3	...	...	...	...	4
30	1	...	9	...	...	...	2	12
31	...	...	3	...	...	...	...	3
Entero 71	1	...	2	...	...	...	1	4
Entero C/Albany/74	...	...	1	...	...	...	...	1
Influenza A	5	...	7	2	...	7	5	26
Influenza A/Texas/77	1	...	...	...	...	...	...	1
Influenza A/USSR/77	...	...	1	...	...	1	1	3
Mumps	1	...	1	...	...	...	1	3
Parainfluenza 3	1	...	...	...	...	...	1	2
Respiratory syncytial	...	...	1	...	...	1	2	4
Measles	1	1	2	...	2	...	2	8
Rubella	...	...	...	...	...	...	2	2
California encephalitis	9	3	18	1	...	...	2	33
Powassan	1	...	...	...	...	...	...	1
Lymphocytic choriomeningitis	...	...	1	...	...	...	...	1
Adeno								
2	1	...	1	...	...	...	...	2
11	...	...	...	...	...	...	1	1
Untyped	6	...	8	...	...	...	3	17
Herpes simplex	17	6	24	4	...	...	11	62
Varicella-zoster	3	1	2	3	...	1	...	10
Cytomegalo	1	...	4	...	...	...	8	13
Epstein-Barr	1	...	...	...	...	...	...	1
Chlamydia trachomatis	...	...	1	...	...	...	...	1
Coxiella burneti	...	...	1	...	...	...	1	2
Mycoplasma pneumoniae	3	1	5	...	1	1	2	13
Unidentified	4	1	33	...	...	...	...	38
TOTAL LABORATORY DIAGNOSTIC FINDINGS	76	33	284	13	4	11	60	481
Summary								
Patients with multiple findings	7	1	12	1	...	1	4	26
Patients with diagnostic findings	69	32	267	12	4	10	56	450
Total patients studied	319	61	756	85	28	18	158	1,425
Percentage with diagnostic findings	21.6	52.5	39.6	14.1	14.3	55.6	35.4	31.6

* Data from New York State and Erie County laboratories.

† E = encephalitis; ME = meningoencephalitis; M = aseptic meningitis, includes abacterial meningitis; P = paralytic disease; GB = Guillain-Barré; R = Reye's syndrome; NS = neurologic symptoms and others.

TABLE V. Laboratory diagnostic findings in patients with Reye's syndrome, 1978–1979, New York State exclusive of New York City

Patient			Year and Month of Onset of Illness	Fatal Course	Test Results Agent Indicated (Test Employed*)
No.	Age	Sex			
			1978		
1	5	M	January	. . .	Negative
2	6	M		. . .	Influenza A (S) and varicella-zoster (S)
3	11	F		. . .	Influenza A (S)
4	6	F	February	. . .	Negative
5	10	F		. . .	Negative
6	4	F	March	+	Respiratory syncytial virus (S)
7	11	F		+	Influenza A (S)
			1979		
8	9	F	February	. . .	Influenza A (S)
9	5	M	March	. . .	Negative
10	7	M		. . .	Influenza A/USSR/77 (I)
11	12	F		. . .	Influenza A (S)
12	12	F		. . .	Influenza A (S)
13	12	M		. . .	Negative
14	2	F	May	. . .	Negative
15	13	M		. . .	Influenza A (S)
16	10	M	August	. . .	Negative
17	ng[†]	F	October	. . .	*M. pneumoniae* (S)
18	7	M	December	. . .	Negative

* I = virus isolation attempt; S = antibody test.
[†] ng = not given.

was not isolated thereafter. Influenza A/USSR/77, the so-called Russian influenza, was first isolated from a patient with onset of illness on January 28, 1978, and became prevalent in February and March, 1978. It was the only type of influenza virus isolated in 1979. While in past years influenza A was only rarely implicated in patients with Reye's syndrome, in this study period it was indicated in 8 of 18 such cases, or 44 percent. Six of the 8 cases with influenza A findings occurred when influenza A/USSR/77 was prevalent (Table V). This may reflect a greater potential of the USSR/77 strain of influenza virus to cause Reye's syndrome and is consistent with findings elsewhere in the United States.[8] The incidence of patients with Reye's syndrome remained the same in 1978 to 1979, involving 18 of 1,425 patients with CNS infections compared with 1976 to 1977, when 18 of 1,366 patients had this diagnosis. However, the mortality rate was only 11 percent among Reye's syndrome patients in 1978 to 1979 compared with 33 percent in 1976 to 1977. This is also consistent with a nationally observed decreased case-fatality rate.[8] Whether this decrease is the result of a growing public alertness and earlier referral of the patient to treatment centers or of improved therapy is uncertain.[9] The finding for respiratory syncytial virus in a four-year-old girl in which the disease took a fatal course is the second case of association of this virus with fatal Reye's syndrome.[10]

A resurgence of California encephalitis virus infections was noted in 1978 when 20 cases were identified and in 1979 with 13 cases detected by laboratory studies. In addition to our findings in 33 patients, California encephalitis was confirmed in 1978 by the Yale University School of Medicine in a 13-year-old boy who resided in Westchester County close to the Connecticut border.[11] The fatal outcome of the disease in this patient also emphasizes the importance of this arboviral pathogen. National statistical summary reports[7] showed California encephalitis virus as the most common of all viral agents indicated in the etiology of encephalitis in the United States in 1978. The rise in number of identified California encephalitis cases appeared to be associated with a change in the age distribution of these infections. In previous years, 88 percent of the patients with California encephalitis virus findings were 15 years or younger[12]; in 1978 to 1979 only 33 percent of such patients were in this age group.

A total of 28 different serotypes of the recognized enteroviruses were detected. The most common types were Echo 9 and Echo 7 with 34 cases of each, and Echo 11 with 47 cases. Echo 7 had rarely been observed before: from 1958 to 1977 only 14 patients were identified by the New York State Department of Health virus diagnostic services. Another unusual observation was the isolation of unidentified agents in 38 patients. Their growth characteristics are similar to those of enteroviruses and studies are underway to elucidate if they represent a new type or types of this group.

Poliovirus types 1, 2, and 3 were isolated from two patients with meningitis who had received the trivalent oral polio vaccine several weeks before onset of illness. Evidently these isolates are progeny of the vaccine. Their causal relationship to the disease is unlikely in one of the patients who also had a concurrent Echo 7 infection. A third patient with unspecified CNS infection and excretion of poliovirus type 3 had contact with a recently vaccinated sibling, and the possibility that this virus was a vaccine progeny must be considered. In none of these three patients were serious manifestations or sequelae reported.

The herpes group of viruses continue to be significant neuropathogenic agents. Herpes simplex virus remains the leading nonenterovirus cause of CNS viral infection and the agent most frequently associated with a fatal course. Varicella-zoster virus, cytomegalovirus, and Epstein-Barr virus were also implicated in some of the cases with CNS manifestations. In all, herpes group agents accounted for 17.9 percent of the positive findings.

Of 450 patients with diagnostic findings, more than one agent was indicated in 26, or 5.8 percent. Multiple findings may be the result of either simultaneous or closely spaced infections. Statistically, one may expect an increased chance of such events during times of virus prevalence. Indeed, 18 of the 26 cases were associated with prevalent viruses: 16 cases indicated entero- and/or California encephalitis viruses at the time of their prevalence in summer, and in two patients influenza A was diagnosed during the outbreak in 1978. However, for herpes simplex virus, an agent without seasonal prevalence and known to remain latent after primary infection in early childhood, a different explanation for frequent involvement in multiple findings can be suggested. Latent herpesvirus is activated by a variety of trigger mechanisms, one of which can be an infection with another agent. This may be presumed for 6 of the 10 patients in whom multiple findings included an indication of herpes simplex virus, because their ages—12, 22, 35, 60, 71, and 88 years—make a reactivation of latent herpes virus more likely than a primary infection. There is no evidence that patients with multiple findings suffer from more severe disease.

There was no fatal outcome among these 26 patients, and the incidence of encephalitis among them, 26.9 percent, was not significantly different from that among the total study population, 319 of 1,425, or 22.4 percent.

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Beer drinkers now assured freedom from cancer fear

Beer drinkers of the nation can now relax and enjoy moderate amounts of their foamy suds free of at least one health fear—cancer.

The nitrosamine content of both domestic and imported beer is for the most part below the level allowed by the U.S. Food and Drug Administration, says Stephanie C. Crocco, Ph.D., of the American Medical Association's Department of Foods and Nutrition.

The FDA permits only five parts per billion (equivalent to five cents in $10 million) of nitrosamines in beer. Since January 1, 1980, the FDA has been monitoring the nitrosamine content of both domestic and imported beers. Although an occasional report appears that a given beer contains nitrosamines in access of the allowed figure, beers usually do not contain such levels, Dr. Crocco reports.

Regulatory and industrial efforts also are aimed at holding down the amount of the substance found in barley malt used in beer production.

Nitrosamines are organic compounds containing nitrogen. Some of them are known to cause cancer in laboratory rats when given at much higher levels.

Of course, the report on beer in the JAMA is related only to nitrosamines and does not discuss health hazards of excessive drinking, including alcoholism and its concurrent health problems, and obesity.

The report is published in the March 6 Journal of the American Medical Association.

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Wellcome

Electrocardiograms of the Month

Montefiore Hospital and Medical Center
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Editors
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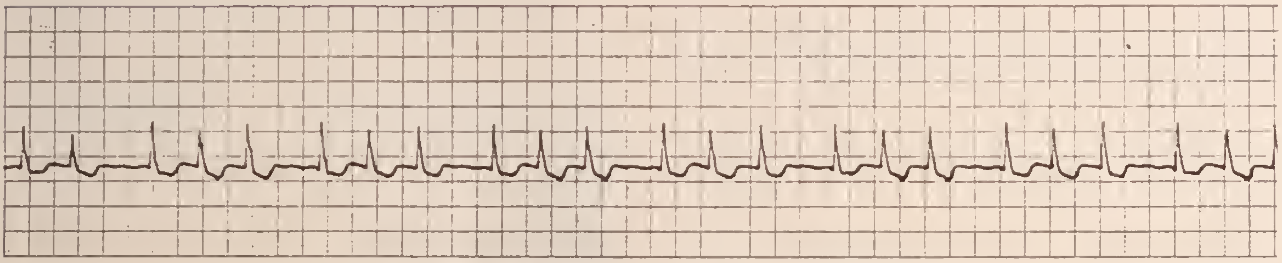
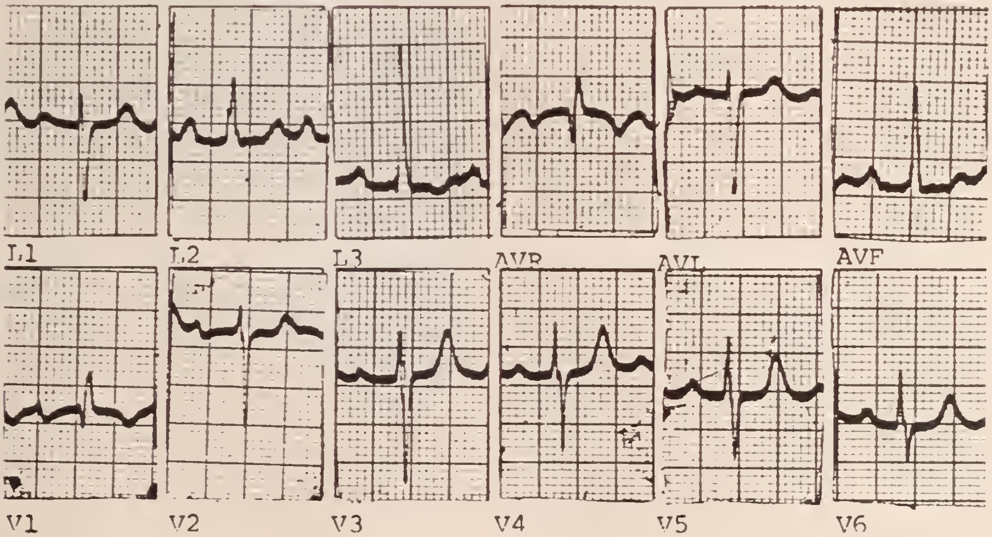


QUESTION 321. Lead 2. What is the rhythm?



QUESTION 322. The patient was a 55-year-old male who was a heavy smoker and had chronic pulmonary disease. He was admitted with acute shortness of breath and peripheral edema. What is the interpretation of this 12 lead electrocardiogram?

Electrocardiograms of the Month

ELUCIDATION

Question 321. There are groups of 3 ventricular complexes with an interval of 400 msec. (millisecond) between each complex. After 3 ventricular complexes there is a pause of 600 msec. Undulating waves are seen during the pause at an interval of 200 msec.

These undulating waves are flutter waves. The three ventricular beats are conducted with 2 : 1 block. The pause is due to a change in the block to 3 : 1.

Question 322. The rhythm is regular sinus. The P waves are peaked in 2,3 and aVF. The P-R interval is 0.22 second.

The mean electrical axis of the QRS in the frontal plane is plus 120°. There is a qR in V1. There is a persistent S wave to V6. The large R in V1 associated with marked right axis deviation are signs of right ventricular hypertrophy. The peaked P waves in 2,3 and aVF and V1 indicate right atrial enlargement. The lack of increase in R to S ratio from V2 to 6 often occurs in patients with right ventricular hypertrophy. The patient has cor pulmonale.

At a ventricular rate below 100 beats per minute, a P-R interval of 0.22 sec. is slightly prolonged but not diagnostic of first degree A-V block.

Office workers sometimes allergic to typing paper

Office workers beware! That puzzling skin rash that won't go away just might be caused by the paper with which you work every day.

Skin specialists have known for years that some individuals are allergic to the ingredients in typing paper, carbon paper, the paper used in duplicating machines, and to paper in general. At least one person was allergic to newspapers. The newest problem to be discovered is allergy to the new brands of carbonless copy paper.

James G. Marks, Jr., M.D., dermatologist with the Milton S. Hershey Medical Center of Pennsylvania State University College of Medicine, Hershey, Pa., reports in the June 12 Journal of the American Medical Association on a 21-year-old clerk in a college registrar's office who suffered skin rashes for more than a year before the cause was traced to the carbonless copy paper used for student registration. Avoiding the paper brought cure of the rash.

Dr. Marks also cites earlier reports of allergy to paper. A female officeworker developed a rash on her hands from the typing paper she used. Papers used in photocopying machines cause problems for some workers.

One of the worst causes found in professional journals involved a woman with such acute sensitivity to formaldehyde that she could not handle most newspapers, books, or magazines. She even developed a rash from lying on the paper cover spread over the physician's examining table.

If your physician finds that you are allergic to paper, there is no cure. You must avoid contact with the offending sheets.

Radiologic Problem of the Month

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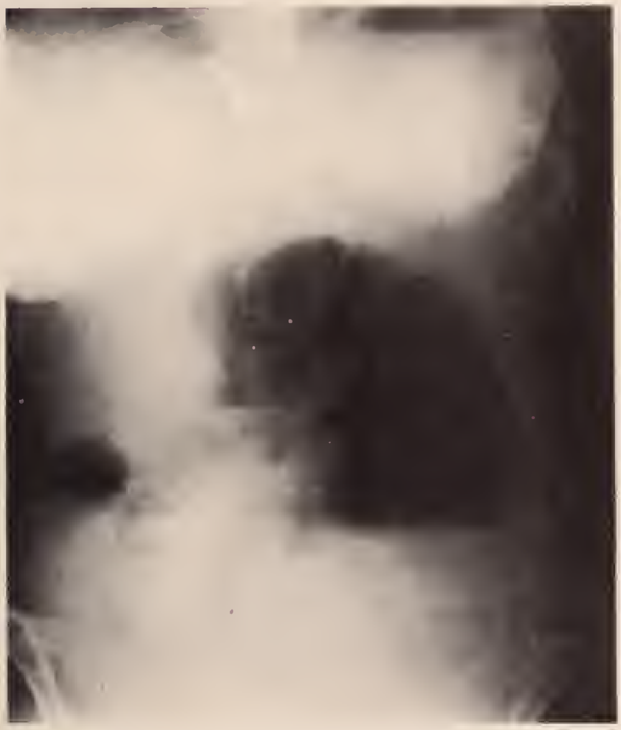
Acute Abdominal Distention



Erect view of a 46-year-old woman with a complaint of abdominal distention and pain of short duration.

Elucidation

An erect view of the abdomen reveals multiple air fluid levels with distention of bowel loops. A single gas-distended loop of bowel observed in the left side of the abdomen must represent colon, judged by the width of the lumen and by the presence of haustral markings. The small air fluid level observed in the right side of the abdomen should then be ileum, again judged by the girth of the lumen and by the lack of volvular conniventes or haustrations. The air fluid level in the left upper quadrant is in the stomach. Gas and fecal material are present in the rectosigmoid. These radiologic findings indicate mechanical obstruction at some point in the colon. This cannot be due to sigmoid volvulus for several reasons: (1) there is a single loop of distended colon, (2) the lack of distention proximal to sigmoid volvulus (namely, the descending and transverse colon), and (3) haustral markings are generally obliterated in the loops of volvulized sigmoid. In addition, the normally gas-filled cecum is not present in the right lower quadrant of abdomen. Hence, the radiologic findings should lead to the diagnosis of volvulus of cecum.

Cecal volvulus is a relatively uncommon form of intestinal obstruction and is more common in males in the age group of 40 to 60 years.[1,2] Cecal volvulus represents about 1 percent of all forms of large-bowel obstruction and accounts for 25 to 40 percent of cases of volvulus of the colon. A prerequisite for cecal volvulus is hypofixation of cecum, terminal ileum, and ascending colon with a common mesentery permitting abnormal mobility of the cecum.

Radiologic studies assume an important role in the early diagnosis of this entity. Plain films of the abdomen often show a markedly dilated cecum displaced to any part of the abdomen, frequently to the left upper quadrant. The right lower quadrant, thus devoid of cecum, is replaced by ileal loops. Occasionally, the ileocecal insertion may be identified to the right of the rotated right colon. The most significant finding in volvulus of the cecum is that the periphery of the dilated cecum shows evidence of haustrations even in the presence of marked distention.[3] When the air-filled appendix is visualized adjacent to the placid cecum, diagnosis is certain. The small bowel loops show considerable variation in their distention.

Barium enema of the colon confirms the diagnosis and on rare occasions even helps in the treatment as detorsion of the volvulus may be obtained. A "beak like" appearance of the head of the barium column, spiraling of the mucosa at the site of torsion, or a smooth cut-off of barium column may be observed.

In the differential diagnosis, one may consider sigmoid volvulus, colonic obstruction either due to malignancy or inflammatory processes including diverticulitis and cecal bascule. Cecal bascule is an acute folding of cecum in an anterior and cephalad direction onto the ascending colon, thus creating obstruction at the site of transverse fold. In this situation the distended cecum and ascending colon are located in the normal portion, namely the right side of abdomen.

This patient was found to have cecal volvulus and surgical resection was done.

Diagnosis

Volvulus of the cecum

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Pediatricians set guidelines for children's sports

School and community officials planning sports programs for children younger than 13 years should remember that "young children are not miniature adults," and avoid features common to highly competitive athletics, such as excessive publicity, pep squads, high pressure public contests, paid admission, or other forms of "exploitation of children in any way," says the American Academy of Pediatrics.

Another factor to consider when athletic activities for children are organized, according to the Academy, is that "there is no physical reason to separate preadolescent children by sex in sports, physical education, and recreational activities." Girls should not compete against boys once the boys have reached puberty, however, since girls then will have less muscle mass per unit of body weight.

Other guidelines for sports programs geared to elementary school age children appear in the June issue of *Pediatrics*, the AAP's official journal.

Children's competitive sports programs should be designed so that all children can participate, "not just the physically gifted, the well developed, or the precocious." Officials therefore should encourage sports—such as bowling, golf, skating, swimming, tennis, and running—which fit the special needs and capabilities of this age group.

The Academy adds that when children compete in sports in which players risk collision, including football, wrestling, soccer, ice hockey, basketball, baseball, and softball, then both play conditions and supervisors' qualifications should carefully be monitored to minimize the risk of injury. The physicians also say that since the goal of boxing is injury, this sport should not be part of children's programs.

Other highlights of the Academy's guidelines include recommendations that adequate medical care be available during games and practice; that players be grouped according to weight, size, physical condition, skill, and physical maturity; and that facilities for the sport be well maintained.

The American Academy of Pediatrics is an organization of more than 22,000 board-certified pediatricians dedicated to the health, safety, and well-being of infants, children, and adolescents in North and South America.

Allergic Edema of Arytenoids and Aryepiglottic Folds

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Allergic reactions of the larynx, while uncommon, occur more often than the pertinent literature indicates.[1,2] A variety of allergens, including drugs, foods, insect bites, and antisera, can produce acute laryngeal edema,[1,2] primarily affecting the supraglottic structures.[3] We describe a patient with isolated allergic edema of the arytenoids and aryepiglottic folds due to food allergy. To our knowledge, this has not been previously reported.

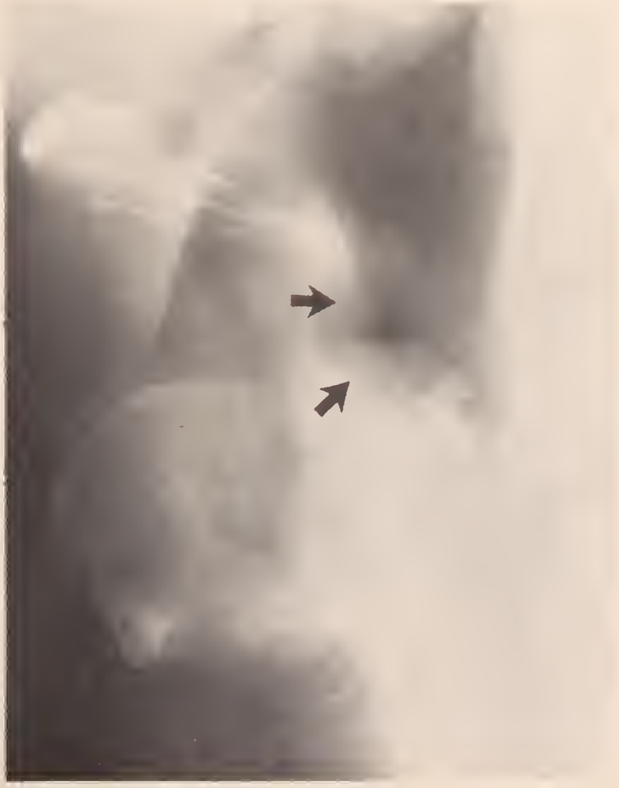
Case report

A 43-year-old man appeared with a four-day history of mild sore throat unaccompanied by fever, chills, or myalgias. Immediately after eating a dinner of chicken with hot sauce, made with Tabasco and hot peppers, he noted difficulty swallowing, hoarseness, a sensation of a lump in his throat, and a feeling of apprehension. There was no previous history of allergy to foods or medication. Findings on physical examination showed that he was afebrile and his voice was hoarse. The pharynx was normal except for mild nonerythematous enlargement of the lingual tonsils. A soft tissue lateral roentgenogram of the neck showed marked edema of the arytenoids and aryepiglottic folds (Fig. 1). Indirect laryngoscopy was then performed and revealed marked pale, glistening edema of the mucosa overlying the arytenoids and aryepiglottic folds. There was no erythema as is seen in acute bacterial infection. The epiglottis and true cords were normal. The patient was started on oral steroids and an antihistamine, and improved dramatically over the following day. Findings on a roentgenogram when the patient became asymptomatic were normal (Fig. 2).

Comment

A review of the literature reveals very little information regarding allergic manifestations of the larynx as a single entity and that the role of the roentgenographic examination has not been emphasized.[2] Pang[1] and Williams[2] have reviewed this entity. Williams[2] stated that the most common foods capable of producing allergic edema are wheat, corn, eggs, beef, yeast, milk, tomato, soy, lettuce, celery, chicken, and fruit juices. Zizmor and Noyek[3] reported a case of acute laryngeal edema of the epiglottis and arytenoid eminence due to mustard ingestion, with an accompanying roentgenogram which demonstrated these findings. Our case of isolated allergic edema of the arytenoids and aryepiglottic

FIGURE 1. X-ray of soft tissue lateral neck. Marked enlargement of aryepiglottic folds (upper arrow) and arytenoids (lower arrow), representing edema.



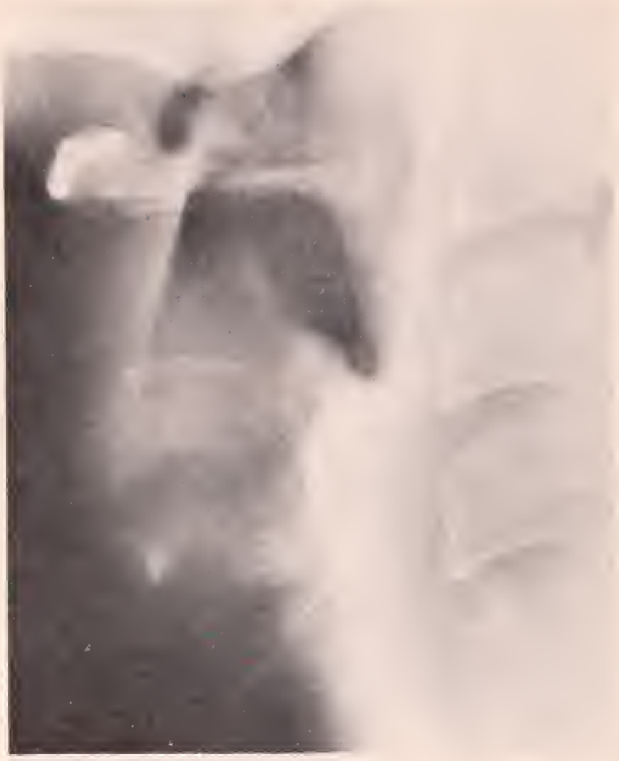


FIGURE 2. X-ray of soft tissue lateral neck after treatment. Aryepiglottic folds and arytenoids now normal.

folds in the presence of a normal epiglottis and true cords illustrates Williams'[2] statement that food allergens may demonstrate a specificity of reaction, that is, may produce edema of isolated laryngeal structures. In this setting, prompt diagnosis and treatment are essential to secure an adequate airway. In allergic forms of edema, this can often be effected with medication, while other cases may require emergency tracheostomy.[3] The soft tissue lateral film of the larynx is a simple, quick, nontraumatic method of defining the region of abnormality. In addition, it may be useful in following response to treatment.[4]

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Normal pressure Hydrocephalus

Associated with Guillain-Barré syndrome

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GBS (Guillain-Barré syndrome) affects the peripheral nervous system; intracranial complications of this syndrome are infrequently described and difficult to explain from the etiologic aspect. Rare cases of papilledema associated with GBS have been reported.[1,2]

Two possible causes of papilledema have been considered. Some authors believe the causitive factor to be swelling of the brain resulting in a pseudo-tumor cerebri-like picture.[3,4] Other investigators blame the increased amounts of protein that interfere with CSF (cerebrospinal fluid) absorption.[5,6] Nevertheless, the presence of hydrocephalus in GBS is even more infrequent than is papilledema.[7,8]

We are presenting a case of GBS in which hydrocephalus without papilledema, or NPH (normal pressure hydrocephalus), was found. The presence of hydrocephalus was documented with CT scan (computerized tomography scintiscan) and confirmed with isotope cisternography.

The availability of CT scan as a noninvasive diagnostic tool to investigate the presence of hydrocephalus will probably, in the future, help distinguish which cases of intracranial complications of GBS are secondary to brain edema and which are due to a communicating hydrocephalus.

The rare reports of such complications in the past have made the problem unclear. At present, CT scan could probably detect more frequently such complications even under subclinical conditions.

Our patient had Fisher's variety of GBS.[9,10] In review of the literature, we were unable to find reports of Fisher's syndrome associated with communicating hydrocephalus.

Case report

In early November, 1978, a 42-year-old white male patient had started to experience severe occipital headaches, worse at night, together with a feeling of stiffness in his neck. Over the next week, he developed numbness and tingling sensation in all extremities, more distally.

On November 18, 1978, he awakened with a right facial weakness and numbness of the face that was diagnosed as Bell's palsy. A CT scan of the head showed an increased size of the ventricular system. Posterior fossa myelographic findings were normal. The CSF protein was 450 Gm. per deciliter. Since his symptoms progressed, the patient was transferred to another institution on January 16, 1979. At that time his legs became weak, his gait unsteady, and he also developed slurred speech.

Physical examination and laboratory data

Neurologically he was found to have a mild horizontal nystagmus of the abducting eye in lateral gaze, bilaterally. He complained of diplopia in right lateral gaze. A mild weakness of both lateral recti muscles was found. Funduscopic examination findings were normal, and revealed no evidence of papilledema. A bilateral peripheral facial weakness, more prominent on the right side, was noted. The deep-tendon reflexes were absent. A distal sensory loss in the upper and lower extremities could be demonstrated. Moderate dysmetria in all extremities was found.

The CSF protein was now 440 Gm. and glucose 62 Gm., blood glucose 120 Gm. per deciliter. Cell count revealed 28 WBC (white blood cells) and 100 percent monocytes. CSF Ig (immunoglobulin)G was 94 Gm. per deciliter (21.4 percent). CSF cultures were negative for bacteria. Investigations for porphyria and heavy metal poisoning turned up no abnormalities. Findings for Refsum's disease and lues tested out normal.

CT scan of the head showed marked enlargement of the lateral and third ventricles without evidence of cortical atrophy; no increased or decreased densities were observed.

An isotope cisternogram showed substantial filling of the enlarged ventricles in early images which persisted throughout the complete 48-hour study, although there was minimal migration over the convexities during this period of time. A thorough investigation for an occult malignant condition disclosed nothing unusual.

The motor conduction velocities of several nerves were markedly reduced.

The patient was discharged without a definite diagnosis. However, his gait deteriorated to the point of his becoming confined to a wheelchair, and his speech became more slurred.

On March 15, 1979, he was admitted to the Erie County Medical Center. At that time, his neurologic condition progressed as follows: mental status normal, pupils equal and reactive to light, with a mild bilateral horizontal nystagmus of the abducting eye in lateral gaze. No further evidence of extraocular involvement was seen, and the patient did not complain of diplopia. He had a bilateral facial weakness, more so on the right side. Sensation to light touch and pain was diminished on both sides of the face.

A slight generalized muscle wasting was observed. All extremities revealed considerable hypotonia. The deep-tendon reflexes were absent throughout. No pathologic plantar reflexes could be elicited. Marked symmetrical muscle weakness, more pronounced in the lower than in the upper extremities, was noted. The proximal musculature was more affected than were distal muscles. There was marked distal and symmetric diminution of sensation in all extremities, most marked for vibration and position sense. The sensory loss was more marked in the lower than in the upper extremities. Severe bilateral ataxia in all extremities in the finger-to-nose and the heel-to-shin maneuver could be elicited. Distal skillful movements were impaired bilaterally. Because of severe lack of coordination and weakness, the patient's gait could not be tested.

Follow-up test findings

Test findings for complete blood count, electrolytes, glucose, creatinine, blood urea nitrogen, serum glutamic oxaloacetic transaminase, lactic acid dehydrogenase, alkaline phosphatase, creatine phosphokinase, calcium, phosphorus, and uric acid in the serum were normal. Bilirubin was slightly elevated (1.6 mg. per deciliter), serum glutamic pyruvic transaminase was slightly increased (39 I.U. per liter).

A repeat lumbar puncture revealed the protein to be approximately 900 mg. and glucose 73 mg. per deciliter; 13 WBC and no red blood cells were noted. Pressure was normal, and blood and spinal-fluid cultures were negative for bacteria.

CT scan of the head showed an asymmetrical hydrocephalus with the left lateral ventricle slightly larger than the right, possibly of longer standing (Fig. 1A).

An isotope cisternogram continued to show abnormalities (Fig. 1B).

Electromyographic and nerve-conduction studies were performed and remained consistent with a diffuse segmental demyelinating type of neuropathic condition.

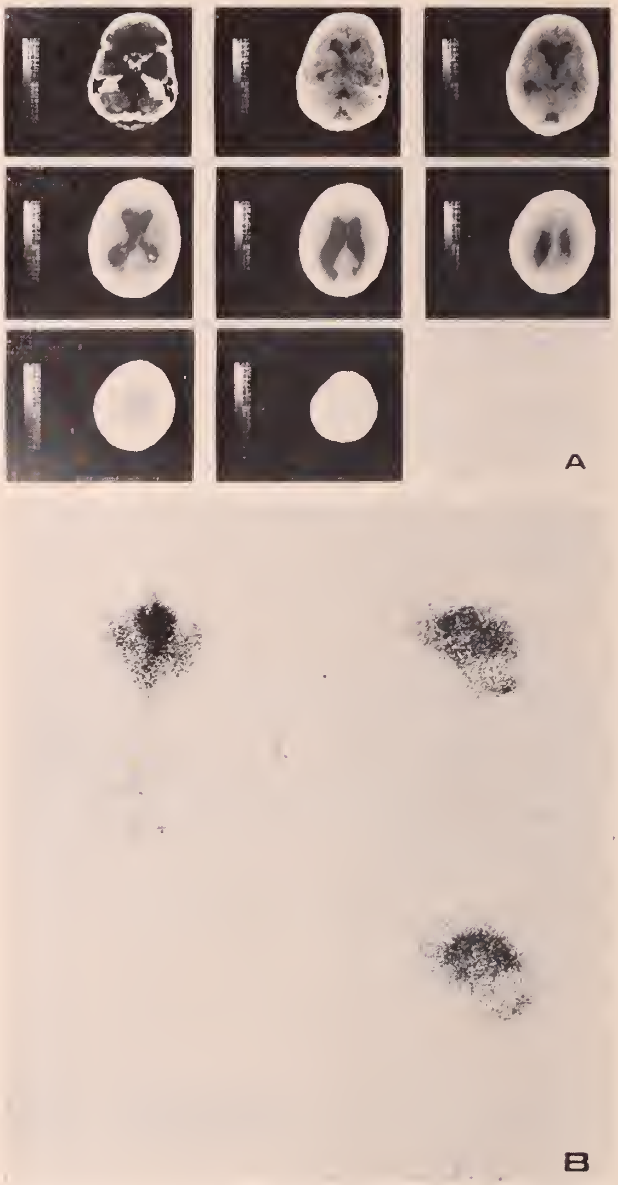

FIGURE 1. (A) CT scan of head revealing asymmetrical hydrocephalus with left lateral ventricle slightly larger than right. No abnormal increased or decreased densities were seen. (B) Isotope cisternography demonstrating substantial filling of enlarged ventricles, persisting for 30 hours. (Courtesy of George Alker, M.D., Neuroradiologist, Erie County Medical Center, Buffalo, New York)

A shunt operation was considered and subsequently suggested by the neurosurgical service, but the patient decided against the procedure. He was discharged with the diagnosis of a polyradiculopathic condition (GBS) and concomitant hydrocephalus.

Because of breathing difficulties and major weakness of the arms and legs, the patient was admitted again on August 6, 1979. A repeat spinal tap revealed considerable improvement in the protein level (460 mg. per deciliter). A repeat electromyogram again showed evidence for a severe distal motor neuropathic condition. The motor conduction velocity of the right median nerve (elbow to wrist) was 13 meters and the distal motor latency was 15 meters per second. A sural nerve biopsy revealed a severe demyelinating neuropathic condition, and a muscle biopsy (deltoid) demonstrated a chronic denervation atrophy. Electroencephalogram findings were normal.

The patient received physiotherapy and was placed on dexamethasone (Decadron) on September 12, 1980. A mild improvement of the musculature strength could be seen, and his appetite and spirits improved. He was discharged on 2 mg. dexamethasone daily, and after two weeks, 2 mg. on alternate days. In the following weeks, he kept improving slowly but steadily.

Comment

Among the multiple causes of NPH, the GBS rarely has been included.[7,8,11]

In the past, the presence of a hydrocephalus as a complication of high CSF protein in GBS may not have been detected, or was at least underestimated, because of lack of accurate and noninvasive diagnostic techniques. Some of the typical clinical features of the normotensive hydrocephalus, such as urinary and gait disturbances, may not have been diagnosed or were attributed to a polyradiculopathic condition.

Since early recognition of an NPH may have important therapeutic implications, we suggest the performance of a CT scan in patients with GBS, especially in patients with a very high CSF protein and symptoms such as gait and urinary disturbances.

Previous reports of intracranial complications of GBS have concentrated on the problem of increased intracranial pressure, and an occasional presence of papilledema in GBS has been generally accepted. On the other hand, the possibility of hydrocephalus without signs of increased pressure (such as papilledema, vomiting, or headaches) has been less readily recognized. In the occasional reports about hydrocephalus secondary to GBS, an accompanying papilledema was always present. The discussion was usually focused to the unsettled causative factors of the papilledema.

Since CSF protein in GBS occasionally reaches very high levels, predisposing to such complications, we suspect that the frequency of NPH may have been considerably underestimated.

Fisher's syndrome has also been considered an intracranial complication of GBS. The opthalmoplegia and cerebellar signs have often been attributed to the additional demyelination affecting the CNS. We have reviewed the literature for a possible association between Fisher's syndrome and other intracranial complications such as papilledema and hydrocephalus, but this specific syndrome does not seem to be particularly predisposed to develop these other complications.[12] We would like to mention that the level of CSF protein in the Fisher's form of the disease is not higher than in the other varieties of the disease; therefore, a higher incidence of hydrocephalus or papilledema is not likely to be expected.

Summary

A case of Fisher's variety of GBS (Guillain-Barré syndrome) associated with NPH (normal pressure hydrocephalus) is presented and commented on. Abnormal findings were documented by computed tomography, isotope cisternography, electromyography, including nerve conduction studies, and CSF (cerebrospinal spinal-fluid) examinations. In the past, NPH as a complication of high CSF protein in GBS may have been underestimated. The early use of a CT scan of the head in such cases is suggested.

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Optic Neuritis and Heart Block in Kearns-Sayre Syndrome*

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The KS (Kearns-Sayre) syndrome is characterized by progressive external ophthalmoplegia, a diffuse pattern of retinal pigmentary degeneration evident before age 20 years, and heart block which develops after age 20 in some patients and may lead to sudden death.[1–8] Despite the central role of heart block in the natural history of the illness, the KS syndrome until recently has received little attention in the literature of cardiology or general medicine. Since appropriate electrophysiologic study and pacemaker therapy may, respectively, guide therapy and prevent death in these patients, internists as well as neurophthalmologists should be aware of this syndrome. The following case report and literature review illustrate these points. Our patient has also had recurrent optic neuritis, suggestive of a systemic demyelinating disorder, an association not previously reported in KS syndrome.

Case report

A 44-year-old woman was studied in November, 1978. Birth and early development were normal. There was no family history of neurologic, retinal, or cardiac disorders and there were no unusual childhood infections. She appeared normal in a childhood photograph but ptosis was noted at age 12.

At age 13, she developed transient right optic neuritis with central scotoma, optic-disk swelling with hemorrhage, and relative afferent pupillary defect. Moderate ptosis, limitation of horizontal ocular movements to 25 degrees, "salt and pepper" retinal pigmentary degeneration, and conductive hearing deficit were also documented. Electroencephalography was normal but CSF (cerebrospinal fluid) protein content was 68 mg. per deciliter. Ptosis, ophthalmoparesis, decreased visual acuity, and hearing loss gradually progressed and were accompanied by orbicularis weakness.

At age 33, left optic neuritis occurred with ocular pain (not increased by movement), central scotoma, disk swelling, and hemorrhage. CSF protein was 81 mg. per deciliter and results of an EEG (electroencephalogram) were normal. She improved slightly with parenteral ACTH (adrenocorticotropic hormone) therapy, and vision was 20/40 nine months later. ECG (electrocardiogram) showed right bundle branch block and left anterior hemiblock. There was no history of dizziness. At age 34 she had two generalized convulsions following cesarean section. These were treated transiently with mephobarbital without recurrence.

At age 38, she suffered transient transverse myelitis. CSF protein content was 199 mg. per deciliter with normal gamma globulin. There was complete resolution with ACTH therapy.

At age 39, evaluation at the State University of New York Hospital at Syracuse revealed generalized limb muscle weakness. Serum creatinine phosphokinase was 270 mg. per deciliter (normal less than 50); electromyography showed myopathic changes in the deltoid muscles; nerve conduction velocities were normal. Right quadriceps muscle biopsy was consistent with mild nonspecific myopathy.

At age 44 (July, 1978), left optic neuritis recurred. Oral prednisone therapy, 60 mg. daily with gradual tapering over three months, was not accompanied by significant clinical improvement.

In November, 1978, she was evaluated at Columbia Presbyterian Medical Center. She was five feet tall, with unremarkable general appearance. Visual acuity was 20/60 in the left eye and the left visual field was generally constricted. Vision in the right eye was limited to perception of hand movement in the inferonasal field. Pupils reacted well with right relative afferent defect. There was bilateral optic atrophy as well as moderate retinal arteriolar narrowing and diffuse retinal pigment epithelial stippling (Fig. 1). There was bilateral ptosis, complete external ophthalmoplegia, palatal dysarthria, bilateral neurosensory hearing loss, mild proximal limb weakness, impaired tandem gait, and dysdiadochokinesia but no intention tremor. Sensation and tendon reflexes in the legs were normal as were plantar responses.

Polytomes of the optic canals as well as high-resolution computerized tomography with contrast of orbits and visualization of the ocular muscles, optic nerves, and chiasm were normal. There was no evidence of pontine or cerebellar atrophy or calcification of the basal ganglia. The lateral ventricles were not visualized. CSF protein content was 110 mg. per deciliter with 8.5 percent gamma globulin; there was a single oligoclonal band of uncertain significance. CSF cells included 7 leukocytes (3 polymorphonuclear, 4 mononuclear). The EEG was nonspecifically abnormal with excessive fast activity throughout and abnormal responses to pattern stimulation and

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* Supported in part by grant HL05763-01 from the National Heart, Lung and Blood Institute, National Institutes of Health.

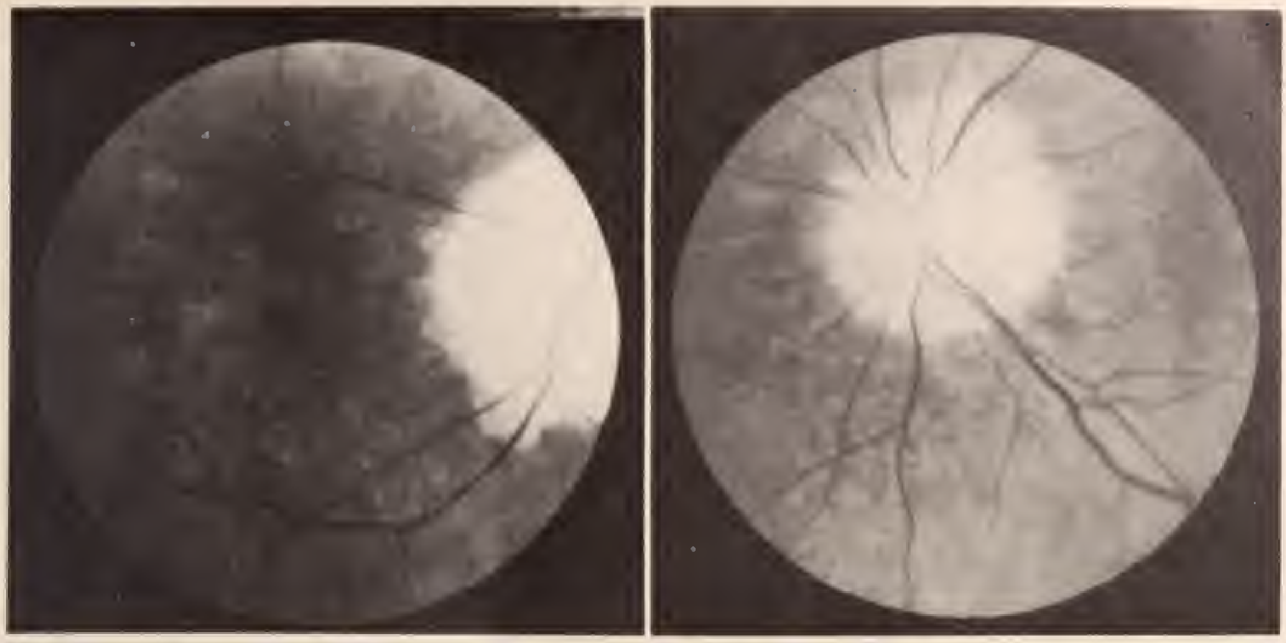

FIGURE 1. Fundus photographs show bilateral optic atrophy, vascular narrowing, and epithelial disturbance of retinal pigment.

stroboscopic studies. The electroretinogram recorded with surface electrode was normal. Somatosensory evoked responses showed a delayed cortical response to right median nerve stimulation but were otherwise normal. Stimulation studies of the median nerve suggested central sensory dysfunction. Antinuclear antibody and serologic tests for syphilis (automated reagent test and fluorescent treponemal antibody-absorption) were negative. Edrophonium chloride, 7 mg. intravenously, did not affect muscle strength or ophthalmoplegia, and did not cause bradycardic symptoms. In paraffin sections of a deltoid muscle biopsy, abnormalities included scattered small fibers, some with clusters of central nuclei; many nuclei were enlarged and vesicular with prominent nucleoli. There were rare regenerating fibers. In trichrome stains, about 10 percent of the fibers were "ragged red" fibers. Necrotic fibers were rare and a few fibers contained enlarged lipid droplets in oil red O stain. With the myofibrillar adenosine triphosphatase stain, type 1 fibers predominated. With NADH-tetrazolium,* intense focal staining resembled the distribution of ragged red fibers, and only type 1 fibers showed this change. Peripheral nerve conduction velocities and electromyogram were normal.

The patient denied dizziness, syncope, palpitations, or chest pain. Results of cardiac examination and chest roentgenogram were normal. She received no chronic cardiac medication. The ECG showed right bundle branch block with left anterior hemiblock and a normal P-R interval. Twenty-four-hour ambulatory electrocardiographic monitoring revealed stable bifascicular block. In view of the eleven-year history of bifascicular block, and the known risk of complete heart block in KS syndrome, cardiac electrophysiologic evaluation was performed to assess the possibility of latent trifascicular block.[9] The His bundle electrogram showed normal conduction times:

A-H interval (conduction time from atrium to bundle of His): 60 msec. (normal 60 to 120 msec.).

H-V (His-ventricle) interval; 50 msec. (normal 35 to 55 msec.).

The sinus cycle length was normal; the AV (atrioventricular) response to pacing was normal; refractory periods were not determined.

Comment

Typical manifestations of KS syndrome in this case included nonfamilial external ophthalmoplegia and atypical pigmentary degeneration of the retina before age 20, heart block, CSF protein content over 100 mg. per deciliter, sensorineural hearing loss, mitochondrial abnormalities in skeletal muscle (ragged red fibers), short stature, and clinical evidence of cerebellar disorder.[1–8]

However, the patient also demonstrated atypical features: possible seizure disorder, optic neuritis, and transverse myelitis. Seizures were recorded in none of the 35 cases of KS syndrome reported prior to 1977,[2] although seizures occurred in one patient with hypoparathyroidism reported since 1977[4] and EEG abnormalities occur frequently in this disorder. Optic neuritis has not been noted in any other case. It is not clear whether this was part of the KS disorder, or whether the patient also suffered from multiple sclerosis, which was suggested by the episode of possible transverse myelitis. Laboratory data do not help in this distinction. As pointed out by this case, however, the possibility of multifaceted neurologic dysfunction should be kept in mind in the future when patients with KS syndrome are encountered.

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* NADH: nicotinamide adenine dinucleotide, reduced form.

Despite the central role of heart block in the natural history of the Kearns-Sayre disorder, little is known about the mechanism of the cardiac conduction abnormality which may result in lethal arrhythmias.[2,10] Most published autopsy reports note an absence of identifiable histologic change in the specialized conduction tissues of the heart, even after six years of symptomatic heart block.[2,10–13] This contrasts with the findings in most disorders causing advanced heart block where fibrocalcific degenerative changes are almost invariably seen in the bundle of His and bundle branches.[14–16] Recently, microscopic degenerative changes were identified in the distal bundle of His and the proximal bundle branches in one patient with KS syndrome,[17] but structural changes have not been confirmed by others.[10]

Clinical progression of cardiac conduction block varies in the KS syndrome.[2] Progression to complete heart block may be witnessed in days or weeks after clinical recognition of conduction defects[2,10] but usually takes years to evolve. Kearns[18] thought that patients who developed clinical disease very early in life were more likely to die of cardiac conduction disturbances. Berenberg et al.[2] cited 34 cases of KS syndrome of which 7 ended fatally, a mortality rate of 20 percent. Most fatalities occurred before general use of cardiac pacing, and prolonged survival should now be the rule with cardiac pacing.[2] Permanent pacemakers have been inserted after symptomatic complete heart block in 8 cases,[6,17,19–25] for symptomatic left bundle branch block with first degree heart block and H-V prolongation in 1 patient,[26] and for asymptomatic H-V prolongation in a 16-year-old girl.[27] However, there have been only five reports in which His bundle electrograms were recorded in patients with KS syndrome.[10,17,22,26,27] Four of the five patients had symptomatic fascicular block and H-V prolongation and received permanent prophylactic pacing.[17,22,26,27] One patient demonstrated mild H-V prolongation (60 to 65 msec.) but did not have cardiac symptoms and did not receive prophylactic pacing.[10] Like the other five patients,[10,17,22,26,27] our patient had normal A-V node conduction by His bundle electrogram. Unlike patients in previous reports, our patient did not demonstrate H-V delay. Therefore, trifascicular involvement was not present in our patient despite the chronic intraventricular conduction abnormality, and chronicity alone did not appear to presage a potentially life-threatening lesion in the near future. Our results would also suggest that chronic bundle branch block on the ECG does not uniformly indicate the presence of a trifascicular defect in patients with KS syndrome, although most patients might be expected to have one.

Clinical progression through bundle or fascicular block to complete heart block is common in KS syndrome[2] and implicates the His-Purkinje system rather than the A-V node. The absence of histologic lesions in the His-Purkinje system in most published reports remains unexplained and has prompted suggestions of a neurogenic cause for bundle branch block.[1,2,12] Structural and functional neurologic abnormalities have been described in the Kearns-Sayre disorder and may be extensive.

While autonomic neurologic aberrations may provoke electrocardiographic changes, these have been disorders of rate, rhythm, or repolarization and are not associated with intraventricular conduction delays during sinus rhythm.[28,29] Neither enhanced vagal tone nor withdrawal of sympathetic tone should induce block in normal bundle branches.[30–39] The influence of vagotonia or sympathetic withdrawal on conduction in diseased bundle branches is currently unclear,[35,40] and careful, meticulous dissection may identify structural abnormalities in conduction tissue from patients with KS syndrome as suggested by Clark et al.[17] Further study is clearly needed.

The etiology of KS syndrome is not known but viral, metabolic, and degenerative mechanisms have been proposed.[2,6] If one of the proposed causes is verified, the cardiac pathophysiology will become easier to investigate and understand. Ultrastructural study of tissue from endomyocardial biopsy of one patient showed changes consistent with ordinary myocardial hypertrophy.[26] Cellular exudation and edema within the specialized conduction tissues have not been reported and high-dose prednisone therapy did not influence the progression to complete heart block and death of one patient,[5] nor did it improve conduction defects in our patient.

The eleven-year history of asymptomatic bifascicular block and the absence of H-V prolongation in our patient seemed to indicate a stable conduction defect, and pacing was not recommended. Rather, 24-hour ambulatory monitoring twice a year, or sooner if new symptoms appear, was suggested. We have now reached 24 months of follow-up since the time of her study. During this period, she has had no symptoms suggestive of advanced heart block, no change in her electrocardiogram, and no Mobitz I, Mobitz II, or advanced heart block on serial Holter monitoring.

Firm recommendations for the use of His bundle electrograms in the management of asymptomatic fascicular block in patients with the Kearns-Sayre syndrome in general, however, must await wider experience. At least two case reports have described rapid progression to advanced heart block in adolescent or preadolescent patients with KS syndrome.[11,37] Therefore, this younger group of Kearns-Sayre patients with fascicular block may require very close follow-up with His bundle study (including provocative stimulation methods which are now recognized as helpful) or continuous ECG monitoring at the first sign of progressive atrioventricular block, even when asymptomatic. H-V prolongation, H-V block with atrial pacing, or transient advanced heart block on ambulatory monitoring in this group may presage permanent demand pacing. It seems reasonable that all Kearns-Sayre patients be taught the symptoms of severe bradycardia, and periodic ambulatory electrocardiography would seem prudent. Unexplained syncope or dizziness, new or worsening angina, fatigue, or episodic dyspnea should require immediate hospital admission and monitoring for transient complete heart block or new trifascicular block. Advanced heart block would require permanent pacing since appropriate pacemaker insertion seems to prolong life in these patients.[2] If transient advanced heart block cannot be documented by ECG monitoring in symptomatic patients, electrophysiologic studies should be performed. Documentation of trifascicular block, especially with H-V prolongation beyond 70 msec. in such symptomatic patients, would probably be an appropriate indication for permanent prophylactic pacing.[9,41,42]

The internist, cardiologist, neurologist, and ophthalmologist should therefore all be aware of the KS syndrome. Modern methods of assessing cardiac conduction disorders may prevent untimely morbidity or death in these patients—a frequent outcome in the past. Adequate ophthalmologic and neurologic evaluation, based on studies such as provided in our patient, may allow a better understanding of this syndrome and improved patient care.

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AMA to sponsor conference on environmental poisons

The American Medical Association will sponsor a national conference on environmental toxicants and human health September 14–16 in Arlington, Virginia.

Representatives of medical societies, health departments, environmental protection agencies, allied health professions, agriculture, business, labor, and industry will meet to attack the problem of health consequences of chemical and other substances in the enironment that are harmful to health.

Much already has been done to meet this problem, but there is a great deal more to be done, the AMA declared in announcing the conference. Some 30 to 40 million tons of hazardous wastes were generated in the United States in 1980. There may be as many as 30,000 to 50,000 uncontrolled disposal sites.

Conference participants will explore better ways to safely transport potentially hazardous substances. Surface transportation accidents have caused spills of dangerous substances.

Public attention has become focused on the health risks stemming from current and past practices—where there were inadequate measures for safety in the production, transportation, uses, and disposal of hazardous substances. The size and scope of these problems are now becoming evident in every part of the nation, the AMA declared.

The medical and allied health professions have a significant concern and responsibility—as do others—for these problems and their solutions, AMA leaders said. Governmental environmental protection programs should utilize the resources of the medical community in particular in the deliberations, decisions, and activities that are intended to enhance environmental quality for the betterment of public health, the medical association said.

Plans are underway to return authority and responsibility to the states for many programs that are now administered by the federal government, the AMA pointed out. Accordingly, it is appropriate that federal agencies work side-by-side with national and medical health organizations to provide positive leadership and support in these efforts.

The conference will include segments on human exposure to dangerous pollutants from water, from land, from food, and from the air. Emergency situations in surface transportation of hazardous substances will be studied.

Keynote speaker will be Merril Eisenbud, Sc.D., of the Institute of Environmental Medicine, New York University, Tuxedo, N.Y., who will present a status report on the environmental movement.

Speakers will include William H. Foege, M.D., director, Centers for Disease Control, Atlanta; David P. Rall, M.D., director, National Institutes of Environmental Health Sciences, Research Triangle Park, N.C.; Phillip S. Guselian, Jr., M.D., of the Medical College of Virginia, Richmond; Donald Lyman, M.D., of the California Department of Health Service, Sacramento.

Also John Tierney and Eugene H. Kremer, M.D., of Louisville, Ky., speaking on sewage system explosions in Louisville; Albert C. Kolbey, Jr., M.D., of the U.S. Food and Drug Administration; Emanuel Landau, Ph.D., of the American Public Health Association; David C. Osler, M.D., of Somerville (Mass.) Hospital; Joseph P. Lafornara, Ph.D., of the Environmental Protection Agency's environmental response team; Raymond D. Harbison, Ph.D., of the University of Arkansas, Little Rock.

The final session will feature a panel discussion on the Love Canal incident, moderated by C. John Tupper, M.D., of the University of California School of Medicine at Davis.

The conference will be held at Stouffer's National Center Hotel, directly across from Washington National Airport.

Further information on the conference is available from the Department of Environmental, Public and Occupational Health, American Medical Association, 535 N. Dearborn St., Chicago, Ill. 60610.

Cryptococcal Meningitis

Significance of positive antigen test on undiluted spinal fluid

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Establishing the diagnosis of cryptococcal meningitis may be difficult because the responsible organism often cannot be identified by India ink or KOH (potassium hydroxide) preparations, or by culture of the CSF (cerebrospinal fluid).[1] Sometimes the only evidence for this entity is the presence of cryptococcal antigen in the CSF.[2-4] Bindschadler and Bennett[5] consider any positive titer for the antigen to be diagnostic, while Snow and Dismukes[3] recommend that only titers of 1:8 or more be considered presumptive evidence of cryptococcal meningitis.

One case of India ink and culture negative-antigen positive cryptococcal meningitis reported by Goodman, Kaufman, and Koenig[2] had CSF positive by LA (latex agglutination) on an undiluted sample only. All other patients in that series and in that of Snow and Dismukes[3] had latex titers of 1:8 or more. Prevost and Newell[4] evaluated a latex agglutination kit and eventually confirmed by culture only those antigen-positive cases in which the titers were 1:64 or more. At lower titers, cultures remained sterile and the false positives were attributed to intercurrent disease which can interfere with the test.

False-positive cryptococcal titers of less than 1:8 have been reported with chronic lymphocytic meningitis[6] and in the presence of a positive rheumatoid factor.[7] False positivity has also been reported with *Klebsiella pneumoniae* abscess and osteomyelitis.[8] Because of this, low-titer positives may have been ignored by physicians, particularly if only the LA method has been used. I, therefore, report another case in which the first evidence for cryptococcal disease was made by LA antigen test on an undiluted CSF sample.

Case report

A 50-year-old man was admitted for evaluation of constant frontal and bitemporal headaches of one month duration, associated with photophobia, vomiting, and one week of fever up to 38.3 °C. Pulmonary sarcoidosis was diagnosed three years previously by liver and lymph node biopsy; he had a right hilar mass but was asymptomatic. He was anergic to skin test battery of coccidioidomycosis, histoplasmosis, candida, purified protein derivative, and streptokinase.

Physical examination, radiologic film, and nuclear scan studies were not diagnostic. Routine blood chemistries, complete blood count, and urinalysis gave normal results. The red blood cell sedimentation rate was 19 mm. per hour (normal 15 or less). Spinal tap revealed a normal opening pressure, decreased CSF glucose, and slightly increased protein; there were 70 red blood cells and 1 mononuclear cell. Cerebrospinal fluid findings were interpreted as traumatic. Gram stain, India ink, and KOH preparations were negative, and bacterial, mycobacterial, and fungal cultures yielded no growth. The CSF was positive by LA for cryptococcal antigen on an undiluted sample only; serum was unreactive. Eight days later a second lumbar puncture was performed. CSF sugar was 38 mg. per deciliter (simultaneous serum value was 120), and the protein 102 mg. per deciliter (normal 50 or less). There were 33 red blood cells and 13 white blood cells, 91 percent mononuclear. Cultures, smears, India ink, and KOH preparations were negative but a reference laboratory later reported that undiluted CSF was positive for cryptococcal antigen by complement fixation.

A cisternal tap was performed nine days later: CSF contained no red blood cells, 1 mononuclear cell, 52 mg. per deciliter protein, and 50 mg. per deciliter glucose (serum 114). India ink and KOH studies were again negative but culture yielded *Cryptococcus neoformans*. After several weeks, the CSF obtained at the third lumbar puncture also grew this organism.

Amphotericin B and flucytosine therapy was begun. Urine, CSF, and sputum studies were made after completion of 15 weeks of therapy and were normal, including serology. The patient did well and is at present, five years after this episode, without symptoms from his meningitis or sarcoidosis.

Comment

Tests for cryptococcal antigen by LA are both highly specific and sensitive.[4] However, false positive results occur, even after control for nonspecific agglutinins.[4,6,7] Sometimes, as in this case, they can provide the first laboratory evidence for cryptococcal meningitis. This case demonstrates the possible diagnostic importance of a low-titer LA reaction. Such results should be followed up with repeat cerebrospinal fluid studies and close observation, particularly when factors which can interfere with latex agglutination are absent.

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USP advisory panel on allergy, immunology, and connective tissue disease named

A new panel of experts in the field of allergy, immunology, and connective tissue disease has been selected to work with the USP (United States Pharmacopeial) Convention, Inc., in its drug-use information development programs. The USP Advisory Panel on Allergy, Immunology, and Connective Tissue Disease is one of 26 expert advisory panels which provide input into the publications of the USP Drug Information Division. In addition, the advisory panel provides advice to the USP Committee of Revision for the development of the official standards of strength, quality, purity, packaging, and labeling.

During its 1980–1985 term, the Panel will develop, review, and revise drug monographs for the annual editions of *USP DI* (*USP Dispensing Information*) and *About Your Medicines*, a new, lay language drug-use handbook. Panel members also will be involved in the continuing drug education and information programs of USP, including development of the bimonthly updates to *USP DI*, a new consumer "About Your Medicines" newsletter, and a series of weekly newspaper columns.

The Allergy, Immunology, and Connective Tissue Disease Advisory Panel members were selected by its Chairman, Albert L. Sheffer, M.D., who was elected to the USP Committee of Revision by the 1980 Pharmacopeial Convention. Dr. Sheffer is Associate Clinical Professor of Medicine at Harvard Medical School.

Drug monographs must survive an exhaustive professional review process before being approved for inclusion in any of the USP publications. Drug use monographs for *USP DI* are first compiled in draft form by USP staff and are then presented for review by the appropriate advisory panel or panels. The revised draft is then published in the *USP DI Review*, a bimonthly publication, for public review and comment. The expert advisory panels then reconsider the monograph before submission to the Committee of Revision. The cycle may be repeated more than once before final consensus is achieved.

In addition to Dr. Sheffer, a new member of the USP Advisory Panel on Allergy, Immunology, and Connective Tissue Disease for the 1980 to 1985 term from the New York area is Elliot F. Ellis, M.D., professor and chairman, Department of Pediatrics, Children's Hospital, Buffalo, New York.

Osteoid Osteoma

Articular communication and minimal pain

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The clinical features of osteoid osteoma are so characteristic and constant that, even though it is uncommon, most orthopedic surgeons are familiar with this small benign bone tumor.[1] It is of interest, therefore, when an osteoid osteoma presents features other than the usual, as illustrated by the following case report.

Case report

A 13-year-old boy was seen in our office on July 23, 1976, complaining of pain and swelling about the right elbow. There was no history of trauma, although the patient stated that five weeks previously he had had elbow pain following the throwing of a baseball. The pain subsided with rest, and after several days he was asymptomatic until the present episode. The character of the pain was dull, and it increased when moving the elbow; when the arm was held immobile, the pain was minimal. He had no history of any complaints referable to the musculoskeletal system in the past.

On physical examination, the elbow was noted to be swollen and warm. Range of motion was from minus 50 degrees of extension to 110 degrees of flexion. Rotation was normal, and there was diffuse tenderness about the joint. X-ray film findings revealed synovitis and a 0.6-centimeter lytic lesion with a central nidus in the anterior lateral aspects of the distal humerus (Fig. 1).

The patient was placed in a posterior plaster splint. On reexamination 10 days later, he stated that the pain was gone. The splint was removed, but the elbow was still noted to be swollen and slightly warm; he was then instructed in range-of-motion exercises. When seen again two weeks later, there was no change in range of motion of the elbow or in the appearance of the synovitis; he had remained pain free, however. Over the course of the next month the synovitis and range of motion did not improve despite physical therapy. The sedimentation rate was normal and repeat x-ray film findings of the elbow were unchanged. The patient remained completely pain free except when stressed to the limits of his range of motion.

Because of persistent synovitis and marked decrease in range of motion, he was admitted to the hospital and operated on September 20, 1976. The elbow was approached through an anterior lateral exposure. There was approximately 10 cc. of serous fluid in the joint and the synovium was thickened and injected. There was a small defect in the cortex of the humerus immediately proximal to the articular surface of the capitellum, with a small clot in the defect. The defect was enlarged and the nidus of an osteoid osteoma was removed without difficulty. A

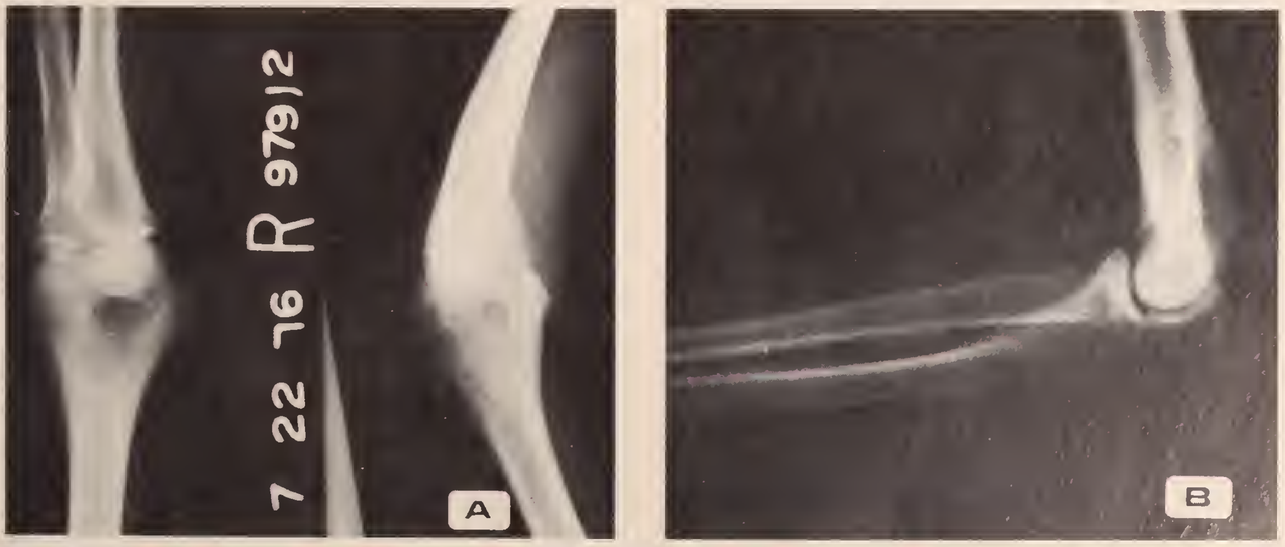

FIGURE 1. (A) and (B) Roentgenograms of right elbow showing cystic lesion with central nidus in anterolateral aspect of distal humerus.

small amount of soft tissue was also curetted from the small cavity.

Histologic examination of the tumor showed characteristic changes of an osteoid osteoma. Postoperatively, the synovitis quickly subsided. The range of motion improved, and when last seen in October, 1977, the range was from minus 10 to 130 degrees of the elbow, there was no pain, and function was normal.

Comment

Scattered throughout the literature are a few reports of osteoid osteoma, where pain was not a prominent feature. Sevitt and Horn[2] reported on a painless calcified osteoma in the small finger of a 15-year-old girl. Lawrie, Aterman, and Sinclair[3] reported two cases of osteoid osteoma, one subperiosteal in location and the other deep within the bone; the reason for the absence of pain in those patients was not apparent. Golding[4] postulated that the character of pain in osteoid osteoma was related to the vascular nature of the lesion, with local pressure causing pain by direct stimulation of nerves around interosseous blood vessels. Based on pathologic studies of 26 osteoid osteomas, Schulman and Dorfman[5] consistently demonstrated neural elements in the nidus of the tumor and felt they were of the autonomic nervous system and sensitive to changes in vascular pressure.

Summary

In this case, the patient had acute synovitis which quickly cleared after a short course of immobilization and anti-inflammatory medication. The patient was then pain free, and at no time was the character of the pain like that usually seen in osteoid osteoma. This case, in which the tumor was pain free and actually vented, would certainly follow the notion that pain in osteoid osteoma is due to have vascular pressure on local nerve endings. It also serves as a reminder that osteoid osteoma may be a cause of synovitis.

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Medicine learns more about sleepers who stop breathing

Medical science is beginning to learn more about a medical disorder that is more common than generally realized—sleep apnea.

This means that the sufferer stops breathing when he or she goes to sleep.

In some individuals the condition becomes so serious that the physician must perform a tracheostomy—inserting a tube in the throat—to get air into the lungs. And sleep is possible only when the tube is in place.

In the March 27 Journal of the American Medical Association, a Harvard Medical School research team reported good results in treating several sufferers from sleep apnea with a medication known as medroxyprogesterone acetate.

Sleep apnea often is associated with gross obesity. The folds of fat around the neck compress the wind pipe when the chin drops in sleep. Some obese individuals have found they must sleep sitting up to breathe.

Victims often are drowsy much of the day. Insufficient oxygen reaches the brain because of reduced air intake.

In four of nine victims the Boston physicians found that the medication resolved daytime sleepiness and reduced the number of episodes of halting breathing during sleep.

An accompanying editorial points out that while only four of nine patients responded to the drug, in these four a possible tracheostomy might have been avoided.

Principal investigator in the research study is Kingman P. Strohl, M.D., of Harvard Medical School and Peter Bent Brigham Hospital, Boston.

Spontaneous Rupture of Uterus Caused by Placenta Percreta

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Placenta percreta is one of the rarest and most serious complications of pregnancy. Normally the chorionic villi penetrate the compacta layer of decidua. The term invasive placenta refers to deeper abnormal penetration, and placenta percreta is the rarest variant of invasive placenta. Following is an example of placenta percreta with uterine rupture which occurred at Mercy Hospital, Toledo, Ohio.

Case report

The patient was a 21-year-old white female para 0-0-1-0 whose last menstrual period was February 23, 1976. The patient reported a cornual resection of a right ruptured tubal pregnancy in October, 1975. The entire prenatal course was within normal limits until the fifteenth week of pregnancy when mild intermittent abdominal cramps occurred and lasted two days. A few days later, after sharp, generalized abdominal pain, the patient fainted and was admitted to Mercy Hospital on June 15, 1976. The patient was in shock with blood pressure of 80/60, pulse 134. Examination revealed rebound tenderness of the abdomen and fetal heart tones of 144. Cervix was closed, there was no vaginal bleeding, and the uterus was 15 to 16 weeks gestational size and very tender. The hemoglobin was 8.7 Gm. per deciliter and hematocrit was 26.

A diagnosis of intra-abdominal bleeding was made and the patient was prepared for immediate surgery with intravenous fluids and blood transfusion. At laparotomy, the abdominal cavity contained 2,000 cc. of blood and a stillborn fetus was found free in the abdominal cavity but still within an intact amniotic sac (Fig. 1). There were two large areas across the fundus which were bleeding profusely. Placental tissue was noted protruding from both areas. A total hysterectomy was performed. Four units of whole blood were replaced and after an uneventful postoperative course, the patient was discharged on the seventh postoperative day.

The pathology report revealed placenta percreta with two perforations of the fundus (Fig. 2A). The villi had penetrated through the myometrium and serosa (Fig. 2B). There was vascular invasion by the cytotrophoblast but no changes suggestive of hydatidiform mole (Fig. 2C). Decidua was lacking at the site of penetration. The fetus measured 11 cm. in crown-rump length corresponding to a gestational age of approximately 15 and one-half weeks.

Comment

The chorionic villi rarely penetrate beyond the compacta layer of decidua. When this occurs the term placenta accreta is generally used. Irving and Hertig[1] have classified this abnormality as follows:

1. Placenta accreta (vera): The trophoblastic tissues penetrate the decidua spongiosa and contact but do not penetrate the myometrium.
2. Placenta increta: The chorionic villi penetrate the myometrium.
3. Placenta percreta: The villi penetrate the myometrium and serosa, frequently rupturing into the peritoneal cavity.

The overall term placenta accreta is rather confusing and, as suggested by Luke, Sharpe, and Greene,[2] the term invasive placenta should be preferred for this condition. Invasive placenta may be total or partial. The major difference between this and invasive trophoblastic disease is the histologic appearance of the villi. In the former, the villi are all normal. The characteristic features of hydatidiform mole are absent.

Etiology

The cause is thought to be a defect in the decidua,

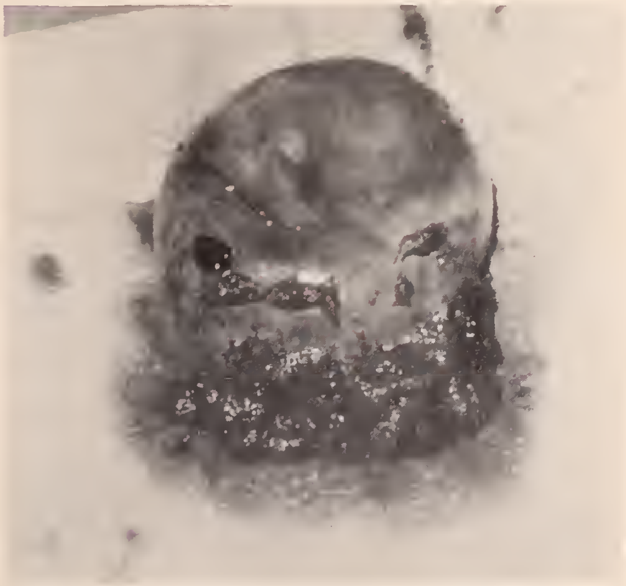
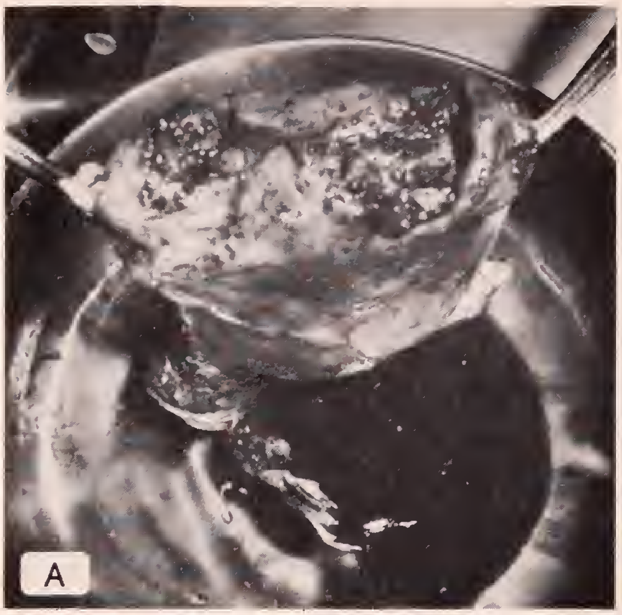


FIGURE 1. Stillborn fetus within intact amniotic sac with adherent placenta, all found free in peritoneal cavity.



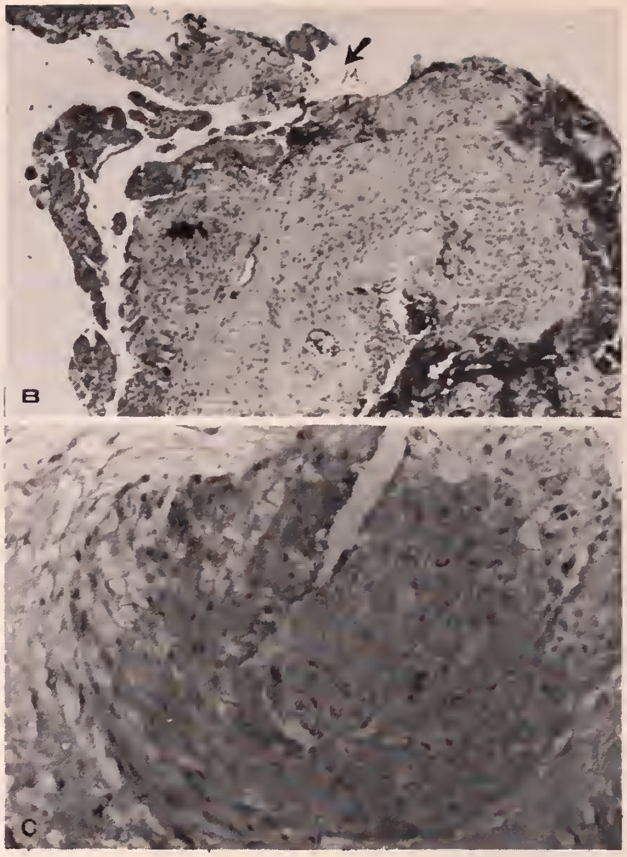


FIGURE 2. (A) Two large perforations across fundus caused by placenta percreta. (B) Chorionic villi infiltrated through myometrium and serosa. Actual site of rupture is seen at arrow. (C) Vascular invasion of cytotrophoblast.

resulting from scarring of the endometrium. Of all cases reported through April, 1980, only Silber et al.[3] reported a case with intact decidua. The common histologic features of invasive placenta are:

1. Defective decidua.[4]
2. Dense fusion of Rohr's and Nitabuch's fibrin layer.
3. Hyalinization of the uterine muscle.[5]
4. Deposition of fibrin and the products of inflammation are also occasionally noted.[6]

The primary (congenital) causes of decidual defect can be summarized as follows:

1. Normal anatomic defect of the endometrium at the cornua,[6] in the lower uterine segment, and at the cervix.
2. Congenital uterine anomalies, such as septate uterus.[7–9]
3. Uterine diverticulum.[6]

When the placenta is low-lying or in previa position due to possible deficiency of endometrium in these areas, villi may penetrate more deeply. Placenta previa associated with invasive placenta is a well established phenomenon and several cases have been reported.[3,8,10–14]

Secondary (acquired) factors are:

1. Endometrial trauma: Previous curettage, manual removal of the placenta, multiparity, previous scars such as cesarean section, cornual resection, metroplasty.
2. Tumors such as submucous myoma.
3. Infection (probably less important than trauma since in most cases there is no evidence of infection).[5]
4. Intramural pregnancy.[15] (This condition is also probably due to defective decidua.)

In almost all cases of invasive placenta, one of the above factors is present.[2–4,6–11,13,16–24] History of multiparity, previous dilation and curettage, and cesarean section are especially important. However, Adducci and Williston[25] and Malkasian and Welsh[12] have reported cases with no previous trauma. Patients treated for Asherman's syndrome had an incidence rate of 9.4 percent invasive placenta in subsequent pregnancies.[26] In the author's case cornual resection of one Fallopian tube was done three months prior to last menstrual period. This was the second case report of invasive placenta following cornual resection.[27]

Incidence

Invasive placenta is very rare with an incidence ranging from 1 in 540[6] to none in over 70,000 deliveries,[28] the highest incidence having been reported from Thailand. Gestational trophoblastic disease is also very common in that part of the world and one might speculate that these two disorders of placenta may be related. The placenta percreta form of invasive placenta is the rarest variant. Until April, 1970, only 38 cases[21] were reported; and as of April

30, 1980, 66 cases (including the author's case) have been found in the literature.[3,7–9,11,14–17,19,22–25,29–34]

Clinical course

Placenta percreta almost always leads to intraperitoneal or intravesical bleeding and is associated with rapid exsanguination and high mortality rate. Thus, it differs from the more superficial types of invasive placenta. There frequently may be a prodromal stage preceding uterine rupture for a few days, as in our case, to several weeks.[30] The patient may appear with intermittent or continuous lower abdominal pain. This may be described as labor-like pain and may subside spontaneously.[12] According to McKeogh and D'Errico,[35] initial myometrial infiltration of the villi is the cause of these pains. However, the patient may be asymptomatic. Pontuch, Sasko, and Kosecky[17] reported a case with "anemia" who was found to have a placenta percreta with subtle rupture of the uterus. In cases where placenta percreta is associated with invasion into the bladder, symptomatic or symptomless hematuria may be the only prodromal sign.[3,11,21,29] Uterine rupture occurs after the placenta is well established, and as early as 12 weeks[36] or as late as in labor at term.[4] The patient may appear with shock. Early recognition of intraperitoneal hemorrhage may be life-saving. The differential diagnosis should include abruptio placenta, amniotic fluid embolus, rupture of an intra-abdominal viscus, and practically all of the other causes of "acute abdomen." Hypofibrinogenemea and disseminated intravascular coagulation with uterine rupture has been reported.[8] The presence of low blood pressure, generalized shock, prodromal symptoms for days or weeks, absence of vaginal bleeding, previous history of endometrial trauma, and the absence of chronic hypertensive disease and/or pregnancy-induced hypertension will aid in the differential diagnosis of this condition from abruption.

Management

A conservative approach was employed in the cases of placenta accreta and increta reported prior to 1940 and consisted of attempts to extract the placenta manually or by curettage, or simple observation of the patient.[2] The maternal mortality rate was between 20 and 60 percent and simple observation resulted in a 67 percent mortality rate.[18,24] Since then, prompt hysterectomy has been the method of choice with a 2 percent maternal mortality rate.[18] However, in 1951 McKeogh and D'Errico[35] recommended a trial of antibiotics, uterine packing, and transfusion for the women who desire future pregnancies. They reported no deaths among nine patients treated in that conservative manner.

The availability of blood banks and of a wide range of antibiotics may allow the physician to attempt a conservative approach in carefully selected cases where further childbearing is desirable and no evidence of uterine rupture exists.

In cases of placenta percreta with spontaneous uterine rupture, immediate laparotomy is indicated. Muir,[37] Schuman,[38] Lloyd-Jones and Winterton,[4] Adducci and Williston[25] advised resection and repair of the involved myometrium. In some cases, placenta percreta managed this way has been followed by normal pregnancy,[37,38] but the patient may require hospitalization for at least the second half of the pregnancy because of the possibility of spontaneous uterine rupture.[25] Most authors believe, however, that hysterectomy on every patient is the best way of management. If the patient is primigravida, bilateral hypogastric ligation and resection and the repair of the involved myometrium may be attempted.[11] Cases should be individualized and the patient should be informed about the risks of uterine rupture in subsequent pregnancies. In cases where the bladder is invaded, a partial cystectomy[3,21] or simple bladder repair[23] is necessary depending on the extent of involvement.

Summary

A case of placenta percreta with spontaneous rupture of the uterus at fifteen and one-half weeks of pregnancy is presented. This is the second earliest case of uterine rupture due to this condition in the English literature, as well as the second case which occurred following previous cornual resection. The term invasive placenta is preferred to placenta accreta. The number of placenta percreta cases in the literature is updated in this report to 66. The etiology, clinical features, and treatment of this rare but catastrophic disease are discussed.

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Special Article

Medical Education of Physicians in New York State

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The number of college students interested in studying medicine in the United States is decreasing. From 1974 to 1975 through 1979 to 1980, the number of applications fell from 362,376 to 335,209.[1-3] The number of applications per individual increased from an average of 8.5 to 9.3. The number of individual applicants fell from 42,624 to 36,137, or some 15 percent. The number of medical schools increased from 114 to 124, and the percentage of applicants admitted increased from 35 to 47 percent.

Many factors may account for the decline of student interest in studying medicine. Socially, there appears to be somewhat of a loss of prestige and public respect for medicine as a whole. The media—the press and television—are often very critical and deprecatory of the practice of medicine. Politically, government regulation of medical education is increasing, federal financial support of the medical schools is decreasing, and legislative restrictions on hospitals and professional services are on the increase. Recently, many reports have been emphasizing the high cost of medical education and the debt incurred by students. Much of the debt can be markedly lowered if the student agrees, on graduation, to a period of indentured service. Of great importance are the recent reports of studies showing that there will be a large surplus of physicians.

College students are well aware of the changing status of the medical profession and the high cost and long duration of medical-school education and of house-staff training.

This article will deal primarily with the supply of physicians in the State and some of the problems now facing medical education.

Expansion of medical education in New York State

The Legislature and the Board of Regents of the State of New York have carried forward several measures in an attempt to increase the number of physicians in the State and to expand the opportunities for residents of the State to study medicine. One very important measure is the use of State financial support to expand the admission of residents to the private schools.

The eight private medical schools are required to admit 70 percent State residents to their first-year classes if they are to receive the full amount of $2,000 per year per student; legislation has been introduced to increase the residency requirements to 80 percent of the class. The four public medical schools are under pressure to admit almost all State residents. Other methods have been promoted to expand medical education for State residents. The State has a contract with the University of Vermont Medical School by which 20 New York State residents are admitted each year at a cost of some $7,500 per student. Also, an agreement has been made with the Sackler Medical School in Israel for the admission of 40 New York State residents per year at a cost to the State of $6,000 per student; these students are to return to New York to serve for three years in physician-shortage areas. The New York College of Osteopathic Medicine was recently chartered, and is now admitting some 65 State residents per year. The Sophie Davis Center for Biomedical Education of the City University of New York provides the equivalent of the first two basic science years of medical education, with students transferring to the third year of another medical school for their next two years of clinical education and training. Under consideration is a State subsidy for residents attending certain southern medical schools, predominantly for black students.

Some of the results of the State's activities in medical education and the production and licensing of physicians are shown in Table I.

The number of admissions to the New York State medical schools will show an increase to some 1,800 per year if the State University of New York at Stony Brook and the College of Osteopathic Medicine increase their class sizes to 100.

The State pays tuition of $7,600 per year per student at Vermont. With a total of 80 students enrolled for the four-year course, the cost to the State is approximately $608,000. At Sackler, with a total enrollment of approximately 160 in a four-year course, the cost is $960,000. New York students attending these schools cost the State's taxpayer two to three times as much as students attending the private schools in the State.

It is obvious that both the regents and the State legislature have been very successful in increasing the

TABLE I. State activities, medical education, physician licensing

School Year	State Population (millions)	Licensed Physicians	Newly Licensed Physicians	Foreign Medical School Graduates	Medical School Admissions*	Medical School Graduates
1960 to 1961	16.78	31,652	1,039	222	1,052	946 (10 schools)
1970 to 1971	18.24	43,963	1,231	204	1,275	1,179 (11 Schools)
1979 to 1980	17.75	58,611	3,765	1,712	1,697	1,674 (12 schools)
University of Vermont*					20	
Sackler Medical School*					40	
New York State College of Osteopathic Medicine					65	
Sophie Davis Center for Biomedical Education (approximate)					60	
Total 1979 to 1980					1,882	
New York State Residents Admitted					1,488 or 79.9 percent of all admissions*	

* Of all the 1,882 students admitted to the schools in New York State, and to the Vermont and Sackler schools, some 1,488 were residents of the State, accounting for almost 80 percent of all the admissions.

number of medical students and the number of physicians in the State. Over a 20-year period, the population of the State increased some 5.5 percent, and has been declining recently. The number of licensed physicians in the State has increased 85 percent, and the yearly licensing of new physicians has increased 300 percent. If 80 percent of licensed physicians are actively engaged in patient care, as was estimated by the State of New York Department of Health, then there are approximately 47,000 such physicians, or one for every 377 people in the State. This is the highest ratio of any state except the District of Columbia.

Emphasis on admission of State residents to medical schools in the State

In spite of these figures, the regents are at present considering further expansion of programs that will further increase the number of medical students.

The number of individual New York State residents applying to all U.S. medical schools has fallen more than 20 percent in six years; the number of applicants nationally, over the same period, has decreased from 42,624 to 36,141, or 15 percent. It would appear that residents of New York State have less interest in a medical education than do residents of other states. Perhaps of considerable significance is the fact that the schools in the State have increased their admission of residents 23 percent in six years; other U.S. schools have reduced their admission of New York residents by 36 percent (897 to 567) (Table II).[4]

Application activity, as shown in Table III, illustrates the effects of admission restrictions on residents of the State. Private schools usually have less restrictions than do public schools.[5]

Note that applications to the schools in New York State have fallen, percentage-wise, more than have the applications to all U.S. schools. The public schools, with residency restrictions, had the largest decrease in applications. In spite of the fact that tuition for residents in the four public schools of the State in 1979 to 1980 ($3,300) averaged one half that of the private schools ($6,763), applications to them

TABLE II. Number of applicants and medical school admissions of New York residents to all U.S. medical schools as well to New York State schools.

Data	1974 to 1975	1977 to 1978	1979 to 1980	Percentage Change
New York State resident applicants to all U.S. medical schools	5,130	4,564	4,050 (*estimate)	21
New York State residents admitted	1,981	1,968	1,900 (*estimate)	. . .
New York State residents admitted to schools in New York State	1,084	1,309	1,333	. . .
Percentage of admissions to all U.S. schools	55 percent	66 percent	70	. . .

* Between 1977 to 1978 and 1979 to 1980, nationally, the number of applicants fell from 40,569 to 36,141, or 11 percent. If a similar decrease occurred in the number of New York State applicants, then the 1979 to 1980 number would he an 11 percent reduction of the 1977 to 1978 figures, or, 4,050. Nationally, 47 percent of all applicants gained admission in 1979 to 1980. Applying this percentage to the 4,050 applicants, it is estimated that 1,900 New York residents gained admission to a medical school in the United States.

TABLE III. Application activity

Schools	1974 to 1975	1979 to 1980	Percentage Change
National (number)			
All applications			
All schools (111)	362,369	(126) 331,645	−8
Public schools (65)	144,922	(75) 121,075	−17
Private schools (46)	217,447	(51) 210,570	−3
New York State (number)			
All Applications			
All schools (12)	55,684	(12) 50,008	−10
Public schools (4)	18,378	(4) 14,257	−22
Private schools (8)	37,306	(8) 35,751	−4

fell some 18 percent more than to the private schools.

In 1977 to 1978, when figures were made available, residents of New York State averaged 17 applications per individual, the highest number in the country. Using this number, and the number of applications in 1979 to 1980, one can estimate the number of individuals applying to the schools.

Resident applications to the 12 schools in the State in 1979 to 1980 totaled 30,546; this, divided by the 17 applications per individual, equals 1,796 applicants. Therefore, the total admission of State residents was 1,333 or 74 percent.

These figures indicate that a State resident, applying to a medical school in the State, has an excellent chance of gaining admission.

Effect of restrictions

TABLE IV. Admissions data on selected public medical schools

	New York Public Schools					
	Applications		Percentage of Class State Residents		Tuition in Dollars	
School	1974 to 1975	1979 to 1980	1974 to 1975	1979 to 1980	1974 to 1975	1979 to 1980
Buffalo	5,317	3,546	91.0	98.5	1,705 R 2,104 NR	3,300 R 4,800 NR
Downstate	6,285	4,097	92.0	95.5	1,600 R 2,000 NR	3,300 R 4,800 NR
Stony Brook	1,936	2,772	91.6	90	1,600 R 2,000 NR	3,300 R 4,800 NR
Upstate	4,840	3,842	95.9	99.3	1,665 R 2,065 NR	3,300 R 4,800 NR
	18,378	14,257	92.6	95.8	1,642 R 2,042 NR Averages	3,300 R 4,800 NR Averages
Change	. . .	−22.4% . . .	Average	Average		
Individual applicants calculated	2,159	1,533 −29%	. . .	. . .	. . .	. . .
	Selected Public Schools, Eastern Seaboard					
University of Massachusetts	1,029	989	100	100	705 R	4,200 R
University of Connecticut	1,733	1,286	96.9	91.5	950 R 1,850 NR	1,000 R 1,400 NR
COMD, NJ at Newark	2,824	2,406	87.4	93.5	1,100 R 1,750 NR	4,500 R 5,625 NR
COMD, NJ at Rutgers	2,678	2,734	82.4	85.2	1,200 R 1,800 NR	4,500 R 5,625 NR
University of Maryland	1,820	1,686	98.2	94.3	1,200 R 2,300 NR	2,500 R 5,000 NR
University of Virginia	2,785	2,679	69.9	74.8	1,164 R 2,347 NR	2,400 R 5,400 NR
	12,869	11,780	89.1	89.9	1,053 R Average R	3,183 R Average R
Change		−8.5%	Average	Average		
Individual applicants calculated	1,514	1,267 −16%	. . .	. . . . .	. . .	

R = State resident; NR = Nonresident.
COMD, NJ = College of Medicine and Dentistry of New Jersey.

Table V. Admissions data on selected private medical schools

School	Applications 1974 to 1975	Applications 1979 to 1980	Percentage of Class State Residents 1974 to 1975	Percentage of Class State Residents 1979 to 1980	Tuition in Dollars 1974 to 1975	Tuition in Dollars 1979 to 1980
New York State						
Albany	4,466	3,449	64	80	2,750	8,050
Einstein	6,202	5,916	63	70	3,000	6,600
Columbia	5,000	4,026	58	70	3,100	5,800
Cornell	4,551	6,135	58	61	3,000	6,700
Mount Sinai	3,659	3,839	59	75	3,000	6,300
New York Medical College	5,041	3,864	76	80	3,647	8,500
New York University	4,201	4,853	...	70	3,000	6,150
Rochester	4,177	3,674	49	70	3,049	6,000
TOTALS	37,306	35,756 −0.4%	...	...	3,068 Average	6,763 Average
Applications						
Individual applicants calculated	4,389	3,845 −8.6%				
Selected Private Schools, Northeast						
Harvard	3,258	4,187	13	10.8	3,250	6,500
Boston University	4,996	7,487	28.4	36.3	3,200	7,500
Tufts	4,589	5,562	27	50	3,300	9,130
Yale	2,686	3,261	15.7	8.9	3,800	6,000
University of Pennsylvania	4,124	6,311	53	50.6	3,460	7,375
Jefferson	6,232	5,102	69	70	2,500	8,400
Johns Hopkins	2,687	3,014	12.5	12.4	3,000	5,250
Duke	3,935	3,873	30.7	26	2,700	5,760
TOTALS	32,507	38,799	...	...	3,151 Average	6,989 Average
Applications		+19%				
Individual applicants calculated	3,825	4,172 +9%				

A comparison of admissions data of the schools in New York State with that of other schools in roughly the same geographical area is shown in Tables IV and V.[5]

The data in Table IV compare the admissions data, state of residency, and tuition of the four public schools in the State of New York, with similar data on six selected public shools on the eastern seaboard. The number of individual applicants was estimated by using the national figures reporting the number of applications and the number of applicants. In 1974 to 1975, the individual applicant nationally averaged 8.5 applications, and in 1979 to 1980 the number rose to 9.3 applications per applicant. These ratios were used in estimating the number of applicants for the two groups of schools.

The New York State schools, with a higher percentage of admissions of State residents than other selected schools, lost significantly more in the number of applications (minus 22.4 percent) and estimated number of applicants (minus 29 percent) than did the other schools. The average tuition charged for State residents by the two sets of schools was essentially the same.

Table V presents similar data for the eight private schools in New York State compared with that for a group of eight selected private schools on the eastern seaboard.

The most important differences are in the number of applications, the number of applicants, and the percentage of State residents admitted. The New York State private schools, with financial pressure exerted by the State to admit 70 percent or more State residents, are losing their ability to compete with their peers for applicants.

Comment

The State Legislature and the Board of Regents of the State of New York have been instrumental in developing three broad programs with respect to medical education and the supply of physicians in the State.

The first program was implemented to increase the number of physicians in the State. This has been accomplished by encouraging the schools to increase their enrollments, by establishing a new State school at Stony Brook, and by approving the establishment of the new College of Osteopathic Medicine. Perhaps the most effective effort has been the licensing of large numbers of graduates of foreign medical schools. Over the last five or more years, they have accounted for 50 percent or more of all newly licensed physicians. In spite of the fact that New York State has one of the very highest ratios of physicians to population, these programs are being continued.

The second program involved the expansion and financing of medical education for State residents. This has been successful in terms of numbers, but proved very detrimental to the medical schools, which are losing stature and the ability to compete with their peers in the northeast in attracting students. The program has not prevented a decrease in the number of residents applying to the schools.

The third program is related to the second in that it will expand medical-education opportunities for residents to attend foreign medical schools. This program is primarily the regents' response to minority and highly organized special-pressure groups. The parents of students unable to meet the standards for admission to U.S. medical schools have persuaded the regents to consider the approval of certain foreign medical schools, primarily in the Caribbean and Mexico.

The GAO (General Accounting Office) of the federal government organized a team to visit six foreign schools, five of which were in the Caribbean or Mexico; a report of the findings of this team has been published.[6] In essence it concluded "in the GAO's opinion none of them (the schools) offered a medical education comparable to that available in the United States because of deficiencies in admission requirements, facilities and equipment, faculty, curriculum or clinical training."

Several of the schools are newly established; their major objective is attracting U.S. students, chiefly New York State residents. They verge on being diploma mills reminiscent of medical education in the United States at the turn of the century.

The regents' proposal to approve such foreign medical schools has had wide publicity and has been criticized and condemned by several national medical organizations. Such notoriety will further decrease the prestige and stature of medical education and training in New York State.

In spite of the fact that the number of physicians is increasing much more rapidly than is the population and that the number of residents in the State applying to medical schools is decreasing, considerable time, money, and effort are being expended to increase opportunities for a few hundred students representing politically well-organized splinter groups of citizens. Improving the quality of professional medical service to the some 17.5 million people of New York State appears to be receiving very little attention.

Instead of lowering the standards of medical education and training in the State, the time would appear to be most opportune to improve the standards and the quality of professional service to the citizens of the State.

Summary

Although the population of New York State is decreasing and the number of licensed physicians is rapidly increasing, the State is still expanding medical-education opportunities for State residents.

The number of New York State residents applying to medical schools has decreased. The State's use of financial pressure on the schools to admit residents is seriously jeopardizing the schools' ability to compete in attracting out-of-state students.

The regents of the State now have under consideration the approval of foreign medical schools. The objective is to increase the opportunities for residents, who could not gain admission to a U.S. school, to study medicine. Today, New York State residents applying to a school in the State have approximately a 70 percent chance of gaining admission.

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Isaac Bashevis Singer

Medicinal fiction

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What Dryden said of Chaucer's[1] *The Canterbury Tales*, "Here is God's Plenty," may be said also of the fictional works of Isaac Bashevis Singer, for in his narratives of the Jews of the Diaspora, the Nobel Laureate weaves a massive tapestry depicting the tragic wanderings of a homeless people whose destinies are always shaped by the rulers of the host nations that granted them temporary sanctuary. Recent biographers and critics have written voluminously on Singer's remarkable erudition, citing his familiarity with the sacred writings of the East and the West, his encyclopedic knowledge of historic events and processes, his frequent allusions to the tenets of great philosophers, and his concern for the contemporary uses of science.

An enemy of cant and irrational social behavior, he troubles many readers who see his excursions into demonologic realms as romantic extravaganzas, inconsistent with the real world of the observable and verifiable. A passage in "Gimpel the Fool" [2] illustrates his preoccupation with ambiguity, a literary device employed by Nathaniel Hawthorne to endow his tales with an aura of mysticism or supernaturalism. Bishop Berkeley, an eighteenth-century philosopher, might have written Singer's lines: "No doubt the world is entirely an imaginary world, but it is only once removed from the true world." Perhaps this paradoxical statement is the clue to Singer's preoccupation with mysticism and demonology, and, also, with his frequent employment of dream sequences as links between the imaginary and the true world; he postulates that "whatever really doesn't happen is dreamed at night." [2]

Since Singer's fictional milieus are often in the shtetls (small towns of eastern Europe) largely inhabited by Jews, who, from the seventeenth century to their demise in the Holocaust, were deprived of secondary and university training, there were few physicians and surgeons in the shtetls of Russia and Poland. In Singer's tales and novels, afflicted provincials, who were able to seek medical advice in larger towns, usually arrived too late to benefit from consultation and treatment. Consequently, much of lay medical practice of these towns was in the hands of leeches, cuppers, barber-surgeons, herbalists, and, of course, of the rabbis who invoked prayer and incantation to rid their supplicants of the satanic inhabitants who possessed them. The dybbuk, a spirit of a dead person who enters the body of a living person and possesses it, appears in many of Singer's stories, but unlike Edgar Allen Poe's transmigrates who lack passion and vitality, Singer's dybbuks are earthy, passionate, and even likable.

Generally, Singer's physicians and surgeons are idealistic disciples of Hippocrates, reminiscent of Sinclair Lewis' paragon of physicians—the irascible but lovable Dr. Gottlieb of *Arrowsmith.*[3] In *The Family Carnovsky*,[4] Singer lashes the American medical establishment for its cavalier treatment of refugee physicians who had escaped Hitler's terrorism by migrating to the United States. Since this article is basically a review of Singer's medical views in his fictional works, I will not attempt to validate or refute them. I hope, however, that the substance of this study will inspire medical historians to write critical responses to the premises of novelists who have commented frequently on medicine.

Lay medicine

Lacking scientific medical knowledge, or unable to avail themselves of its benefits where it exists, many societies have indulged in lay-folk medicine or shaministic (spirits, demons, and so forth) practices to heal their sick. A shtetl dweller himself for many years, Singer includes a variety of lay-medical usages in his stories, some of which he had himself witnessed.

When Daniel Kaminer was suddenly taken ill, grew feverish, and began to cough, his wife Celina had him drink raspberry juice and rubbed his back with turpentine.[5] Since these remedies did not help him, she sent to Skarshew for a physician. Unfortunately, the diagnosis was ominous—advanced pneumonia. Daniel Kaminer was sinking fast. Phlegm in his throat and lungs hindered his breathing. Coughing was painful; his head burned, his feet and fingers felt numb. A friend sent for the town's regimental physician who prescribed leeching and cupping, but to no avail. His breathing sounded like a saw and his nose bled. He died in the morning.[3]

Scenic representation depicting a street scene in the Jewish quarter in Lublin, Poland, nineteenth century. (Courtesy of Beth Hatefutsoth, The Nahum Goldmann Museum of the Jewish Diaspora, Tel Aviv University campus, Israel)

When Gimpel's adulterous wife observed a small growth on her breast, he summoned witch doctors, leechers, and cuppers to her bedside, but their collective ministrations were useless. Finally, he called for a physician from Lublin, but she was already beyond salvation when he examined her.[4] Leeches and salves are applied to black eyes and bruises[6]; in bathhouses, healers tapped veins, set leeches, and fastened sucking cups, leaving the floor as bloody as a slaughterhouse.[7] In "The Plagiarist,"[6] poor Shabsai Getsel becomes ill because of an involuntary curse uttered by a rabbi.[6] Psalms for the ill are chanted for him and prayers in his behalf were vainly said at the graves of his ancestors. The physician who drove from Zamosc to attend him prescribed the usual cupping, leeching, and turpentine rubdown, but these measures were not helpful. Shabsai, like the others, died soon after these treatments.[6] Nor did cupping and leeching spare Esther Krendel from death; however, her ambitious spirit entered the body of a young girl, Simmele, who shortly after married Esther's husband, Reb Zorach Lipover. But when that twice-blessed worthy soul died, poor Simmele stretched out on his deathbed, grew yellow and sunken in visage, and went through the death throes of her supplanter. Her open eyes were opaque and unseeing, and "a spoonful of chicken soup poured into her mouth and dribbled out."[8]

Other remedies were equally ineffective. Brandy and pepper placed on the bellies of children suffering from extreme cold did not prevent the children from choking and turning blue.[7] To restore his potency, Itche Mates fed on roasted garlic and salted peas, but these delicacies failed to make him more pleasurable to Mrs. Mates.[7] Lemons and sour drops were eaten to banish sea sickness,[2] moldy preserves to dispel melancholy,[7] and onions to discourage imps from entering bodies.[7] Another remedy for impotency, raspberries and milk, is suggested by Hurmizah, her demon lover, by gullible Taibele, but the clever seducer, who had convinced her that he was a satanic spirit, rejected this prescription, knowing that his body was enfeebled by the ague which was then epidemic.[8] That Teibele was naive enough to believe that demons were susceptible to human ills is hard to believe; perhaps her sexual desire for Hurmizah blinded her to the flaws in Hurmizah's story.

Although Shaindel Mendel was the wife of a medical student, she persisted in her superstitious healing ways.[9] When a child sneezed, she pulled at his ear; on the eve of the new moon, she gave him potions to prevent worms.[9] To restore the use of a dislocated shoulder, the bad arm was soaked in hot water, medicated with seething salt, malodorous yellow-green salve, mustard plaster, and five-day-old fat.[7] To add to poor Rabbi Benesh's woes after these traditional cures failed, a drunken peasant, with some fame as a bonesetter, pulled his arm so violently that the rabbi's bones cracked, causing him to faint.[7]

Finally, and perhaps one of the most inane of all the folklore remedies mentioned by Singer, is the dough-like composition of nails of hands and feet, kneaded into a lump, and thrown to a dog to cure epilepsy.[7]

Overly abused body

In Heaven, naked souls are awaiting bodies. The Angel Bagdial scolds the invisible hosts mercilessly: "All of you clamor for beautiful bodies, but if you get one, what do you make of it? It's destroyed either by drinking or by lechery, or by sloth."[6] On earth, mortal healers declaim vehemently against gluttony and lechery. Fritz Landau, M.D., scolds an elderly patient who complains of stomach problems: "What do you expect from your stomach when you go on abusing it? You stuff it with meat, drown it with beer, and smother it with smoke so it growls, belches, fills with gas, and stinks like a garbage can!"[4] He called intemperate women dumb geese who fill their polluted bodies with poison that they hope some colored water prepared by quacks and greedy pharmacists will wash away. There was no miracle cure-all; to promote good health, one should have a proper diet, breathe fresh air, drink pure water, and practice cleanliness.[4]

In *The Manor*,[9] Ezriel Mendel, M.D., admonishes his wife Shaindel for her increasing obesity. He advises her to eat less chocolate, jam, and halvah (a sweet confection), and shows her articles in medical journals warning that sweets ruin teeth, accumulate fat around the heart, and even lead to diabetes, a disease her mother had. Singer[8] promises further woes for the incontinent in "Blood," a tale about a hedonistic ritual slaughterer and his adulterous paramour. Similar to a medieval *exumplum*, "Blood" preaches morality: "Like those who devote themselves entirely to the pleasures of the flesh, Risha and Reuben grew prematurely old. Their bodies became so swollen that they could barely meet. Their hearts floated in fat."

Diseases in general

Given up by his physicians as lost, the poor rabbi of Marshinov was a case for many specialists. Blind, swollen, and bearing a painfully distended stomach, he was catheterized because of blockage to his bladder. In addition, his lungs were infected and his nose bled. Old Shifrah Puah, suffering from heart, liver, kidney, and lung ailments, astounded her physicians by coming out of her seemingly fatal comas about every two months.[10] Like the poor rabbi of Marshinov, Reb Naftali Holishitzer endured multiple afflictions. Inflamed lungs, nosebleeding, and urine stoppage finally proved too much for him.[11]

Yasha, the magician of Lublin, suffered a severe leg injury when he jumped to safety from the apartment he had vainly sought to rob. As a result, the swelling grew, the flesh on his toes became spongy and puffy, and, possibly, gangrene had set in. Fearful of apprehension, he refrained from seeing a physician.[12] Ophthalmologists would be interested in Doodie, a shoemaker blind in one eye.[7] Although his good eye remained fixed, the one with the tumor blinked rapidly. While preparing to perform a cesarean section on an important ambassador's daughter, the famed Professor Halevy suffers a stroke.[4] First, he feels weakness; debilitation and dizziness overtake him, and then he sees silver streaks that plunge him into terrifying darkness. His temples seem to be caving in and his fingers are cramped. To counter these symptoms, he washed his face in cold water and swallowed a pill for his nerves. Returning to his patient, he checked the patient and equipment to see if all was in order. But as he prepared to make the cesarean section incision, "he felt a drawing in his right temple, a cramp as if a vise were crushing his skull, and at the same time a brilliant flash blinded him and plunged him into darkness." Of course, our hero, Georg (Georg Carnovsky, M.D.), immediately took charge and successfully completed the operation.

The rabbis of Marshinov succumb to repiratory diseases in *The Manor*[9] and in its sequel, *The Estate*.[5] Rabbi Jochanon's illness is incurable, according to Dr. Zabeck, the town physician.[5] In the last stages of consumption, his body is emaciated and his skin has a corpse-like pallor. He coughs, spits, and hemorrhages. His fingernails are split, his urine is cloudy, and his intestines are catarrhal. He drinks a half saucer of milk and a spoonful of groats.

In *The Estate*,[5] Clara Kaminer, a lady of many loves, suffers from gallstones and a weak heart. Her physician had advised her to have the gallstones removed, but she had procrastinated too long to have surgery when her pains became unbearable. Unfortunately, her heart had weakened, precluding surgery. But, advised her physician, by adhering to his four principles for avoiding gallbladder attacks, namely, punctual eating, proper mastication, strict dieting, and avoidance of fat, she might escape serious pain. Clara followed his injunctions implicitly and had no further attacks until a tempestuous sea crossing gave her seasickness which induced a severe attack, the pain moving from stomach to right shoulder with the intensity of labor pains.

But Clara still had to contend with her cardiac condition. Her first attack is but a brief interval away from her second and fatal attack. While brooding over her current lover's loyalty, she experiences a strong pain knifing through her left breast. Soon, her heart, arm, and shoulder begin to ache. Her breath fails and her slightest movement cuts her like a knife. Fortunately, she has pills on hand; later, a physician gave her a sedative. Although her pains subsided, she was fatigued and her body felt like a dead weight.[5] After her second attack, the physicians saw her case as hopeless. Lethargic and dreamy, she began to have hallucinations. One day, while in the embracement of a confused dream, she had to gasp for air; she felt something was being poured into her mouth, something damp being rubbed against her brow. The odor of vinegar and valerian brought her to reality. She had been dying, had been brought back to life, and, for a long time, "she lay quietly, feeling all the pains and pressures of the flesh: the bloated belly, the paralyzed intestines, and the heavy heart that beat weakly as if it was hanging by a thread." [5] That night she died.

Another victim of a heart attack, Professor Eibeschutz, had been stoned by a gang of Polish hoodlums.[13] Not long after, he felt an ache in his left side and a pulse of pain in his chest. Reluctant to ring the bell for his maid Tekla to bring him his pills for angina pectoris, he tried to relax. For a while, the pain in his chest subsided; "then he felt a violent cutting in his heart, his shoulder, his arms, his ribs. He stretched his hand out toward the bell, but his fingers went limp before he could reach it. He never imagined that such pain could be possible. It was as if his heart was being squeezed in a fist. He choked and gasped."

Cholesterol was the undoing of Bernard Neihaus, a man who scoffed at his physicians who had warned him that his blood was almost all cholesterol.[11] "There is no cholesterol," he told his friends. "The doctors invented it." Neihaus died of a heart attack, but he enjoyed eating his rich foods until he was 79.

Dr. Mendel is a fine diagnostician.[5] When he visits his delirious sister Mirale in a mental institution, she tells him that sugar tastes like chalk, a symptom indicating typhus infection. She was bled but breathed laboriously, perspired heavily, and tossed through the night. Dr. Mendel lamented the uselessness of medicines prescribed for this disease as he sat beside his sister's bed. Fortunately, she survived the ordeal, but it left her so weak that she could barely stand and had to learn to walk again.

When Henne Fire's husband left her, the shrew "fell down in an epileptic fit right in the gutter. She knocked her head on the stones, hissed like a snake, and foamed at the mouth. Someone pushed a key into her left hand, but it didn't help." Singer's sharp eyes absorb all kinds of physical aberrations. Elzbieta Zbarski has a broad double chin, "underhung with a goiter that extended nearly to her breast" [12]; Solomon Pintchever, an inn owner, has a black excrescence between his wrinkles that no water could remove[6]; and Temerel starts sneezing after smelling cow dung.[9]

Male and female disorders

As an adolescent, Georg Carnovsky was pimply, nervous, and inattentive in school, but, after being seduced by Emma, the maid, and continuing his sexual education with her regularly, he lost his acne, felt relaxed, and began to earn high grades in school.[4] Prostate troubles saddened the lives of many of Singer's males. Jacques Kohn, a talented but impoverished raconteur, takes pill after pill to avoid urinating during his performances.[13] Dr. Kalisher, who urinated every half hour, was told that he must undergo surgery to remedy his condition. But the troubled scholar put off his operation and tried to delay his need to urinate by taking baths, applying hot-water bottles, consuming French pills, and even by self-massage, but when shocked by abrupt noises, he unhappily wet himself.[14] A fictional counterpart, Sam Dreiman, suffered on two accounts.[15] His blocked bladder sent him to the toilet 20 times a day. A bad heart precluded surgery, but what troubled him most was that he was forbidden to drink whiskey because of his urinary problems.

For male impotency, Dr. Mendel recommended hydrotherapy, but the women in *Satan in Goray*[7] have a less classical water cure to cure impotency; they encourage virility-water with which a woman has washed her breasts. As to the blame for childlessness, Singer takes a neutral course. In the case of Shifra Leah and her husband Alter, the physician said he was to blame, but Singer asks rhetorically "... who can be sure about such things?"[14] Extramarital sex, even when approved by his spouse, brought grief to Jacob Getzelles.[11] Encouraged by his wife to lie with Phyllis Gurdin, a scheming occultist, Jacob overcomes his moral scruples and copulates with Phyllis. The night of abandonment left him with a weakness in his loins and a stabbing in the bladder; the consequences of having abused his enlarged prostate. Urination was painful and scanty. "It's too late for such blessings," he lamented.

The euphemisms for menstruation reflect the cultural attitudes people have toward this "impure" physiologic function. In *Enemies*,[10] Masha speaks apprehensively to Herman about her period.

"It's been seven weeks since I've had my visitor," Masha said. At first Herman did not understand what she was talking about. The women in his life each referred to their menstrual period by a different name: the holy day, the guest, the monthly. In *Satan in Goray*,[7] Rechelle, who ate less than a fly, had her period once in three months. To restore normal flow, women are urged to eat the foreskin of a circumcised infant, and, to prevent excessive flow, to take deterrent pills.[7]

Potions and talismans fail to prevent miscarriages.[6] In the ritual bathhouse, women feel the breasts and loins of brides to test them for barrenness.[7] A test for the infertility of a parent was the record of childbirth among the respective relatives of the man and wife.[8] Marian Zawacki, M.D., administered drops and injections to his scrawny wife Felicia. They removed the wrinkles around her eyes, eased her fatigue, spinal pain, and constipation, but, alas, did not make her fertile.[9]

Altele, in the story by the same name,[13] tried heroically to induce pregnancy by employing a materia medica reminiscent of the ghastly stew boiled by the witches in *Macbeth*. Among her ingredients were the foreskin of a newly circumcised boy,[7] virgin blood of a bride, devil's dung, fried frogs, placenta of a newborn child, and stag's testicles. Around her throat she wore amulets, wolves' teeth, gems, charmed coins, and a piece of amber. To supplement these fertility facilitators, she carried herbs, salves, and magical potions in her bag. "When one needs help, one cannot be squeamish," comments Singer laconically.

A kerchief with the name of Zabbatai Zevi, the false Messiah, stitched on it, stops the birth pangs of women in labor when they are placed on their bellies.[7] Childbirth affected women adversely. The women in the bathhouses had breasts that hung like lumps of dough, mighty hips, and loose bellies.[7] Although regular sexual intercourse removed the acne from Georg Carnovsky's face, Magda's rashes and pimples did not vanish after she became Yasha, the magician's mistress.[12]

Mental illness

Although Mr. Singer delves deeply into psychology, philosophy, psychic phenomena, and uses dreams to advance many of his plots, he seems skeptical about the benefits of psychoanalysis, perhaps because he believes that physicians who treat mental patients are more susceptible to insanity than are other physicians.[9] One of his most "intellectual" characters, Morris Feitelzohn, M.D., expresses the author's reservations about psychoanalysis succinctly: "The patient comes to the analyst to be cured, that is, he becomes like everyone else. He wants to be rid of his complexes, and the analyst is supposed to help him in this effort. But where is it written that the cure is better than the disease?"[15] Dr. Mendel goes a step further in his scrutiny of man's mental burdens. He sees symptoms of neurasthenia, hysteria, or chronic dissatisfaction in all people. Among all classes, races, and creeds, unhappy persons are afflicted with the punishing effects of rage, pride, frustration, thwarted ambition, and unfulfilled lusts; they are obsessed with the need to possess more and more material things, and are given to either insatiable study or endless love affairs, drifting to inevitable and tragic failure.[5] A neurologist, he envied physicians who had tangible specialties, but he had entered a domain "where almost nothing was known."[9] Whereas other physicians tried to cure with specific remedies, all he could do was offer false encouragement. "A loved one had died? Well, one must keep on living."[5]

Yet, at one time he had believed that all spiritual diseases, "even the so-called functional ones, were organic and had to do with the structure of the brain and its chemical processes. Could words and glances alter cells and tissues?"[5] But he was troubled; Bernheim, Charcot, and Janet were not charlatans. He had witnessed cases of hypnotic catalepsy, lethargy, and somnambulism and had "seen hypnotized patients shiver from alleged cold, perspire from nonexistent heat, react to suggested hallucinations, carry out hypnotic orders."[5] In time, he began to use hypnosis on his mistress via telephone and on his patients in his office, but he was always suspicious that the patient might "be playing along with him." [5] In another novel, *The Magician of Lublin*,[12] Yasha could put his mistress Magda to sleep in a minute, make her shiver in a heat wave, and prick her with a needle, yet draw no blood.

Nightmares occur frequently in the tortured minds of many of Singer's characters who for the most part are harried Jews rarely accepted by their host nations; they are the scapegoats for all natural and man-made catastrophes, living in constant dread of ostracism or destruction. Occasionally, nightmares serve as omens foreshadowing major turns in the novel. In two instances, Singer's physicians are concerned with pavor nocturnus, a form of nervousness, defined as "one of those functional disturbances the origin of which is not known." [9] In *The Manor*,[9] Kolia, the son of Madame Bielikov, Dr. Mendel's mistress, is organically sound, but, like Jechorichen, the son of Dr. Carnovsky and his wife Teresa, he awakes in terror during the night. Dr. Carnovsky watches his son, who sleeps after an attack of pavor nocturnus, and meditates about life, heredity, and man's ignorance of mental processes:

> *He looked at the sleeping boy. His lids were closed, his wasted arms awkwardly sprawled over the blanket, his forehead beneath the lank, dark hair was pale and lined with bluish veins. A wave of pity came over Georg. What was his son thinking? What went on in that childish brain? What visions appeared there when he was asleep? What fears haunted him? As a surgeon, Georg knew every tissue and cell of the human brain. But what was it actually, that small pile of matter, blood, and veins? Why did it differ so radically from person to person, encompassing every degree of brilliance and stupidity, coarseness and spirituality? There lay his son, his own flesh and blood. Though he was a mere baby he was already burdened with dark thoughts and fears. Whose blood called out within him in the night? . . . . Man's semen was full of hidden forces—good and evil, wisdom and stupidity, cruelty and mercy, health and sickness, joy and sorrow, genius and insanity, ugliness and beauty—all borne along in a tiny drop of liquid propelled by some mysterious force.*[4]

And where do many of the mentally afflicted eventually abide? Unfortunately, in mental institutions. Dr. Mendel describes the unhappy "guests at Bonifraten Hospital, the quiet ones who dreamed while awake, and the maniacs who had to be confined to strait jackets; the melancholics steeped in eternal gloom; the paranoics who convinced themselves that they had inherited great wealth, had buried treasured hoards, and were connected with the royal court. There was a fantastic number of Messiahs among the Jewish patients. Women were more susceptible to erotic insanity than are men. Insanity was really a disease of the brain, but more than any other affliction, it was linked to social factors, culture, and religion." [9]

An interesting case of shock resulting from terrifying dreams is traced in *Satan in Goray*.[7] Rechel, a young woman, dreams of her dead grandmother and is found with her knees clutched to her chest, her eyes glazed, and her teeth clenched. Attendants forced her mouth open, poured sour wine down her throat, scratched her with long nails, and pulled patches of hair from her head. In addition, incantations were uttered over her, her body was washed with urine, and leeches were applied. Unhappily, all these measures were useless. Her left leg was paralyzed and some observers thought she was epileptic.[7] Later, Rechel has intense religious dreams. Her body perspires, her shaven head pricks and hurts, her eyes dilate, her eyelids puff, and her palate dries. Cold inner chills seize her, her heart palpitates, contracts, coils, twists, and her arms and legs are feeble and hang at her sides. She cannot raise her head and her skull is full of sounds. Her mouth is agape, her throat narrow and swollen. But, gradually, her congealed blood warms and begins to flow through a body she had thought dead. In still another dream, pitiful Rechel sees her father being circled by vultures and her uncle Reb Zeydel Ber wearing a bloody shroud, approaching her, brandishing a butcher knife and yelling, "Your days are numbered." This dream left her head heavy, her scalp painful, as if her hair had been pulled, and her body black and blue, as if it had been pinched.

In one of Singer's[16] short autobiographies, *A Young Man in Search of Love*, Singer writes frankly of his youthful bouts with hypochondria: "As soon as I read of some phobia or neurosis, I immediately acquired it. All the afflictions psychiatrists and neurologists described in their works assailed me one after the other and often, all at the same time. I was consumptive, I had cancer in my intestine, a tumor in my brain, I was growing blind, deaf, paralyzed, insane. I suffered from nightmare and compulsion. Some maniac uttered crazy words inside my brain and I could not silence them." Similarly, Asa Heshel recalled his boyhood hypochondria as he listened to his stomach's gurgling gases after consuming cabbage in the Polish army.[17] He would die before his Bar Mitzvah and wedding day. He would become blind, develop a case of consumption, and have a catarrhal stomach. In *Enemies*,[10] Herman Broder, a refugee from Nazi terrorism, cannot rid himself of the fears he had experienced in Europe. His body was always racked with pain; rheumatism and sciatica were his constant tormentors. He feared that he had a spinal tumor; his stomach ached after eating, drafts clogged his nose, and his throat was frequently sore. He had little confidence in physicians; only sex gave him some temporary relief from pain.

The dead

Records of vital statistics were rarely kept in the small shtetls of Eastern Europe. The bombing and burning of towns or villages having large Jewish populations further depleted records that might give us more data on the medical practices of the shtetl people. There is no mention of medical examiners in the books cited in this article. This humorous passage from "Getzel the Monkey" [6] illustrates the attitude of the villagers on the causes of death. An example is "Now listen to this. One day Risha Leah died. Of what did she die? I couldn't say. Nowadays people run to the doctor; in those times a person got sick and was soon finished. Perhaps it was Getzel's carrying on that killed her. Anyway, she died and they buried her."

Even physicians found it difficult to deal with corpses. Dr. Mendel hated to visit morgues to view bodies "which had only recently been living creatures, hoping and planning." [9] Dissecting cadavers sickened Dr. Georg Carnovsky whose medical training will be discussed later.

Singer describes two corpses in detail. After Clara Kaminer's death, Jacob Moiseyevitch sat beside her body noting its hourly changes. "The nose grew longer and acquired a Semitic curve, as if during her lifetime Clara had been able to keep it in check. The mouth fell open and Jacob Moiseyevitch was no longer able to close it. An eye opened and the pupil within looked out blindly. It was no longer Clara but a shape, fragment of eternity." [5] When Professor Eibeschutz's maid Tekla found him dead in his room, "the figure she saw was no longer the professor, but a kind of grotesque doll: yellow as clay, stiff as bone, with a gaping mouth, a disfigured nose, his beard pointing upward, the lids of one eye stuck together, the other eye half open in an otherworld smile. A hand with waxen fingers lay on the table." [13]

The nonmedical attendants at deathbeds had a simple method of determining death—placing a feather at the nostrils of the dying. In several tales by Singer, "The Man Who Came Back," [14] and *Satan in Goray*,[7] this is the only technique used to establish legal death.

The profession

Five physicians, Dr. Landau, Dr. Carnovsky, Dr. Halévy, Dr. Mendel, and Solomon Margolin, M.D., exemplify the idealism and professionalism of the altruistic doctor of medicine. As Jews in countries having strong anti-Semitic traditions, they have to strive heroically to gain admission to medical schools. In the case of Dr. Mendel, a Polish Jew, his efforts to become a physician were made possible through the intervention in his behalf by Wallenburg, a convert to Catholicism having strong political connections. In an interview with Dr. Mendel, Wallenburg asks[9]:

> "What are your plans?"
> "I hope to get my degree and study medicine."
> "Why medicine?"
> "I don't know myself."
> "Well, doctors are needed too. Jews like doctors. A Jew will skip a meal but buy medicine. They are sick, as a matter of fact. Diabetes is especially prevalent among them, and consumption as well."

Once a physician, Dr. Mendel had doubts about the profession; was it worthwhile to become one? Did he really have the aptitude for the profession? Perhaps his diagnoses were wrong. And there were social problems that seemed to dwarf the benefits that medicine brought: "Here in Warsaw, people live in dark cellars, three families to a hole. They were devoured by lice, hunger, and consumption. What good was medicine if people were driven to death?" [9]

Unlike Dr. Mendel who did not really know why he had drifted into medicine, Dr. Carnovsky was drawn to the profession by his admiration for Dr. Landau and his love for Elsa, Landau's daughter. She was a medical student when he met her. A student of philosophy and a collector of rents for his father, Georg met Dr. Landau, an impoverished physician, when he visited his apartment in Berlin to collect the rent. Georg knocked on the door to the physician's office and walked in. A middle-aged man was washing his hands in a basin of water.

"Undress, undress!" he said without turning around.

"I am Carnovsky," the landlord's son replied. I've come for the rent and I'm quite healthy."

"Whether you're healthy or not young man, is for me to decide. That's something you can't know by yourself." [4]

Dr. Landau's artlessness disarmed Georg. The physician told him that he has many patients who possess few marks. They pay whatever they can; sometimes they even take money from the tray that served as a cash register. Moving to the tray he counts the coins and says, "Whatever it comes to, that's how much you'll get." [4]

Georg is stunned by Dr. Landau's disparagement of his major, philosophy, "the worst profession a young man could choose." Pointing to the bookcases that lined the walls Dr. Landau explains:

"Here are all the philosophical works from Plato to Schopenhauer. During the several thousand years between the one and the other nothing new has been added. This science does not progress; it stands in place, tapping in the dark like a blind man. Now, over here, you see books on medicine. Every volume brings new developments."

Georg tried desperately to defend his discipline, but Dr. Landau dismissed it as trash.

Perhaps more influential than Dr. Landau's rationalism in directing Georg's inclinations toward medicine was Elsa, the physician's brilliant daughter who assisted him.[4] She shows the young philosopher the fascinating world of unicellular life under the microscope's scrutiny and he is impressed, but he is even more impressed with her femininity, her fiery red hair, and her graciousness. The father and the daughter soon convert him to medicine. But, he still had to cope with the rigors inherent in the study of medicine. A frightening incident in the laboratory almost diverted him from his new resolve. Elsa opened a black box which she had carried back with her from an autopsy: "The blood drained from Georg's face. A skull looked at him through gaping sockets. The stench of death and decay assailed him, although the skull had been boiled and scrubbed clean."[7] He felt faint and nauseated. Elsa held a vial under his nose and asked him to inhale. Ashamed, he said, "Not the best start for a prospective doctor."

She made light of the matter. "It doesn't matter. Lots of people begin this way."

Elsa was right. In a few days Georg enrolled in a medical school. A serious student, he studied diligently, heeded Dr. Landau's precepts, and worked enthusiastically with Elsa. Undoubtedly, some of Dr. Landau's medical eccentricities amused Georg. For example, Dr. Landau washed himself from head to foot in ice cold water to the chagrin of his old housekeeper, Johanna, who deplored his indifference to nakedness. When he took his morning walk with Elsa, he shouted, "Don't slow up, and don't breathe through your mouth, Donnerwetter! Only through the nose, the nose, the nose!" Meeting schoolchildren, he would greet them happily. "Whose kids are you?"

"I am Karl Wendemayer. My father is the shoemaker."

"Oh, yes. I sliced your windpipe when you had diphtheria. You're a real rascal, you are . . . ."

To all of them he ordered, "No playing around the garbage can, now! And don't you dare breathe with your mouths, you germ-swallowers. With your noses . . . so! . . . ."[4]

Like the author, Dr. Landau is a vegetarian. His simple breakfast included dark bread, honey, milk, and raw carrots, cabbage, and lettuce. He prescribed ham, coffee, and beer.

The local physicians were unhappy with his policy of allowing patients to pay only as much as they could afford. His worst enemy, pharmacist Magister Kurtius, slandered him constantly because he wrote few prescriptions.[7] Nevertheless, the "good doctor's" patients still flocked to him.

A nature lover, Dr. Landau knew and cherished the whole order of animal species, their nomenclature and habits. A herbalist, he knew the curative powers of herbs that medical practitioners generally neglected. The juice of fat, reddish oak leaves was helpful in poultices for wounds; camomile flowers, crushed and scalded in hot water were helpful in treatment of colds. Boiled ants were useful in potions for relieving rheumatic pains.[4]

One of the most dramatic episodes in *The Family Carnovsky*[4] is Georg Carnovsky's examination in surgical procedures at the Institute of Pathologic Anatomy. The chief of Surgery, Professor Geheimrat Lentzbach, a stern and aloof septuagenerian, commanded awed respect from everyone, especially from Georg, the only Jewish candidate among the 10 students. Unwittingly, he addressed the examiner as Herr Professor, an oversight not forgiven by his tormentor who insisted on being addressed as Geheimrat. Georg was his first victim.

"Appendectomy, Carnovsky," he roared, selecting a cadaver.

The corpse was complete, fresh from the clinic. A young, slim woman, not yet 20, she seemed to be sleeping. His hand trembled slightly when "he sliced open her belly."

"Steady! And keep those hands still!" Professor Lentzbach barked as he observed Georg's nervousness.

Georg fought strongly to fight off the nausea that was incapacitating his nerves and fingers. His examiner was watching him closely.

"Calmly and quickly!" he commanded. "Forget that a corpse is lying there and imagine that it is a patient whose appendix must come out. One cannot fumble for even a second at a time like this. One must work calmly and quickly!"

Finally, after removing the appendix and showing it to the impassive professor, Georg was almost at the breaking point. But Professor Lentzbach was not through with him. He had a new challenge for Georg, one rarely given on such occasions.[4]

"Eye enucleation," he said.

Georg approached the body and tried to open both eyes. When one eye opened at last, it looked at him "in mild, pleading appeal." His hands began to tremble anew.

"Steady! This is an eye, a delicate organ. Stay calm, goddam it!" Almost faint, George managed to cut out the eye in prescribed fashion

"Enough!" Professor Lentzbach finally barked and nodded to indicate that the student had passed the examination.[4]

Exhausted from the ordeal, Georg had a severe nightmare in which skeletons and severed organs pursued him. Discouraged, he told Dr. Landau that he wanted to quit the medical profession.

"Quatch!" Dr. Landau said." A doctor without a heart is a butcher with a medical diploma. Only a person with a heart can be a great doctor."[7]

Buoyed in spirit by Dr. Landau and Elsa, Georg regained heart and continued as a physician. But he soon had an unexpected practice; the advent of World War I meant military service for him. Eventually he was called to serve in a field hospital on the eastern front.

Four years later, Georg returned to Berlin, sick of blood, amputations, gangrene, pus, and death rattles.[4] He told Dr. Landau that he wished to be a surgeon; he had proved himself as a military surgeon.

Landau opposed him. "Cut! Cut! Cut! That's all everybody knows. Why shouldn't a young man become an obstetrician?"

He explained his feelings. "After annihilation the world needs rebirth. After a harvest, one must sow, sow, sow . . . ."

Later, Landau recommends Georg to Professor Halévy, director of the Halévy Maternity Clinic in Kaiserelle. Landau's praise of Dr. Halévy will not please medical specialists: "He's an old friend of mine and although he's a specialist, he's a great doctor and a decent fellow besides—a rarity, I might add, among specialists."[4]

With the rise of the Nazis, Jews began to leave Germany in large numbers. Among the refugees who were fortunate enough to leave before the Holocaust blazed into flame from its almost unnoticed kindling, were Georg Carnovsky and his family. Unable to practice in the United States until he had passed the medical board's licensing examination, Georg prepared himself for this new ordeal. At first, American physicians greeted their emigré colleagues warmly, but some complained that the newcomers were arrogant, contemptuous of American physicians, and boastful of their accomplishments.[4] Dr. Alberti, a powerful member of the examining board, delighted in composing tests designed to confound the immigrant candidates. He liked to boast that he had deprived eminent refugee physicians of licenses. Some of the rejected physicians took up new trades; others began to study anew, as if they were beginning medical students.[4] Georg felt that his examination had been eminently unfair. Why, for example, did he have to know the exact percentage of sugar and protein in spinal fluid? He became panicky as he progressed through the examination and sensed that he had failed. After doing so, and lacking funds, he pawned the apparatus that he had been able to take out of Germany and became a peddler.[4]

Another physician in the idealistic tradition of Dr. Landau and Dr. Carnovsky, Dr. Margolin, had never broken the Hippocratic Oath.[8] He treated rabbis, refugees, and Jewish writers without charge, even supplying them with medicines, and, if need be, a hospital bed."

The Family Carnovsky[4] closes with an intensely emotional scene that lacks plausibility, and, yet, fulfills its artistic intent successfully. Jegor, the son of Georg Carnovsky and Teresa, his Christian mother, rejected his father's Judaism even in Germany. Drawn to his Uncle Hugo, Teresa's brother, he follows Hugo's Nazi ways and resents his Jewish blood. In America, he allies himself with Nazi propagandists, one of whom attempts to seduce him. Disillusioned with the Nazi world that rejects him, and unable to accept his father, he returns home to commit suicide. The bullet that he aimed at his heart lodges, instead, only near it. His father decides to operate at once; Teresa, a former nurse, assists him.

"Keep up your nerve, son," he said to Jegor, who was looking at his father with staring and wondering eyes.

Jagor took his father's hand and kissed it. The act of love spread a warm glow through Dr. Carnovsky's soul and he took a moment off to kiss Jegor on the lips. Calmly, he picked up the scalpel that Dr. Halévy had bequeathed him "and made the incision." [8]

Comment

In his novels and short stories, Isaac Bashevis Singer writes of a world that is almost unknown to Jews and non-Jews alike. The shtetl civilization that had survived numerous prior massacres and forced exiles finally disappeared after the Nazis completed their "final solution" of the Jewish problem in Europe. It is fitting, therefore, that Singer has written his fictional works in Yiddish, the language of millions of Jews who perished in Europe in the years 1939 to 1945. Although the number of Yiddish-speaking Jews is declining as Jews of the Diaspora tend to favor the language of their adopted lands, there is a strong movement among Jewish cultural leaders to perpetuate Yiddish.

Mr. Singer's world of shtetl life is a strange one to the reader unfamiliar with Jewish history. The dress, diet, language, religion, and philosophy of Singer's characters are in a sense alien to Americans who have been superficially introduced to shtetl culture in the scenarios of "Fiddler on the Roof." Chagall's paintings capture the spirit of the shtetl, although his juxtapositions of people and places confuse many of his viewers.

In shtetl and in ghetto, science could not thrive. Denied secondary and university training in many European countries, legions of potential scholars and scientists turned to their only intellectual outlet—the religion of their fathers. Talmudic studies absorbed the intellectual; Hebraic scholasticism was a by-product of this intense dedication to exegetics.

Since religion deals with the supernatural, it is inevitable that healing and religion frequently cross paths. Shamanism exists in every society. Believers feel that the unknown is a world of spirits, demons, imps, and unclassified beings who interfere with man's daily living and his aspirations for immortality. Lacking rational medical knowledge, frightened people seek refuge in incantation, charms, trances, seances, and in varieties of witchcraft.

The shtetl Jews in Singer's works have little contact with medical physicians. Folk medicine, prayer, and quackery are their alternatives to the scientific medical services that prevail in the cities. Not until the Enlightenment would they benefit from the medical advances that were gradually shaping the path of modern medicine.

Literary critics have found a parallel between Hawthorne and Singer. Like Hawthorne, Singer delights in confounding us with deliberate ambiguities. His imps, demons, and angels offend the strict rationalist, but if we deny their existence, must we not also deny the supernatural claims of religion?

Folk medicine as he depicts it is often bizarre, stupid, and comical, but to offset the demonic and the superstitious in medicine, he creates recognizable physicians who are ethical, competent, and creative. As a layman, I find Dr. Landau the most appealing of Singer's works. Dr. Landau enjoys his days; he is a lover of life, uniquely shorn of all materialistic desire. He exults in the happiness of children, in the well-being of his patients, and in the sanctity of life. Like his creator, he is a vegetarian, subsisting on simple fare. Indifferent to fees, he will heal the poor without embarrassing them. A well-read man, an enemy of cant, and an inspiration to young physicians, Dr. Landau is one of fiction's most lovable physicians. I hope that there are many more like him in today's world of scalpel, syringe, and stethescope.

47 Tanager Lane
Levittown, New York 11756

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Eye injuries in sports are growing hazard

Little leaguers across the country may be in danger of losing more than just the game this summer.

Eye damage due to sports injury has risen significantly since 1973, and the most dangerous sport for the ages 5–14 group is baseball.

A report in the July 10 issue of the Journal of the American Medical Association says that more than 12 percent, or 35,000, of all eye injuries reported in 1978 were caused by sports. This marks a 58 percent increase over 1973 figures. Nearly one third of these injuries afflicted the elementary-school age group. Heading the top of the list is baseball, America's favorite pasttime, which accounts for 26 percent of the injuries. This is followed by football, bicycling, BB guns, hockey, and volleyball.

In the 15–24 age group, basketball is responsible for 20 percent of the eye injuries and baseball 19 percent. For those over 25, racquet sports account for 29 percent of the injuries and baseball 20 percent. The under-five age group suffers the most from bicycling.

Ninety percent of all sports related eye injuries could be prevented by proper eye safety practices and glasses. The problem, according to Jack Bell, sports medicine specialist for the American Medical Association, is the development of standards for eye protection in the various sports.

"We probably will not be able to eliminate all eye injuries in sports and play," stated Bell in the JAMA article," but we can certainly do more to establish reliable data sources, learn about new problems and monitor the effectiveness of protective devices and rule changes in reducing rates of injury."

Currently, the National Society to Prevent Blindness has appointed a committee to collect and review data on eye injuries and has joined with the American Society for Testing and Materials and the Canadian Standards Association to determine the best means of eye protection for various sports, particularly racquet sports.

"We need to develop standards that we can all live with," said Bell. "The number of sports participants increases each year. More attention and commitment is needed in this field."

Watch ticks away for five months inside stomach of mugger victim

Physicians are accustomed to finding all sorts of unusual items in the human stomach. But a watch that ticked steadily for five months?

Elliot B. Duboys, M.D., of Stony Brook University, Mineola, N.Y., reports just such an episode in the May 1 Journal of the American Medical Association.

A 49-year-old New Yorker, attacked by a mugger, put his new Timex self-winding wristwatch with synthetic band and buckle into his mouth for safe keeping. He swallowed the watch.

Some time later the man was admitted to a hospital for treatment of another health problem. Routine x-rays revealed clearly the presence of the watch. There was no discomfort. Relatives gave consent for surgery and the watch was removed. The date and time were incorrect, but it was not known if the setting had been correct at the time of swallowing.

Postoperative recovery was uneventful.

Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma

Warnings: Not recommended in primary depressive disorders or psychoses As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation Clinical significance is unknown; but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G.I. disease Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS Some patients have developed leukopenia; some have had elevations of LDH As with other benzodiazepines periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

Ativan® Ⓘⓥ for (lorazepam) Anxiety

Dosage: **Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.**

How Supplied: **0.5, 1.0 and 2.0mg tablets.**

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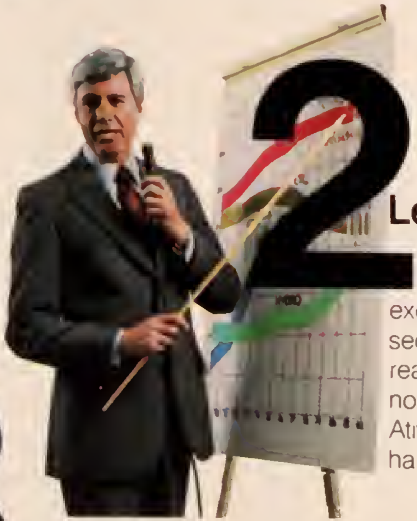
In clinical studies, Ativan was given concomitantly with hundreds of medications, including gastrointestinal and cardiovascular, with no reported interactions. Whereas the interaction of diazepam and cimetidine has been shown to cause increased sedation in patients taking both drugs, the clearance of Ativan is not delayed by Tagamet.[‡]



2 Lets most patients stay active

Long-acting benzodiazepines have long-acting metabolites with activity which can produce excessive accumulation that may lead to unwanted sedation. Ativan® has no active metabolites, reaches steady state in 2 to 3 days and usually does not cause oversedation. Also, the shorter half-life of Ativan is consistent with b.i.d. dosage, so drug hangover is seldom a problem the next morning.

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Unlike the long-acting benzodiazepines—diazepam Ⓒ, chlordiazepoxide Ⓒ, clorazepate Ⓒ and prazepam Ⓒ—the metabolism and clearance of Ativan are not appreciably affected by the aging process.

4 Not significantly affected by liver dysfunction

Ativan® is metabolized in one simple step to an inactive glucuronide; its absorption and excretion are not significantly altered by cirrhosis or hepatitis. By contrast, the metabolism of diazepam and chlordiazepoxide has been reported to be significantly altered in patients with liver dysfunction.

See important information on following page

Wyeth Laboratories
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TM

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[*] Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic.

[†] All benzodiazepines, however, produce additive effects when given with CNS depressants, such as barbiturates or alcohol.

[‡] Tagamet (cimetidine) is a registered trademark of Smith Kline & French Laboratories, Division of SmithKline Corporation.

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Obituaries

Cullen Adlerblum, M.D., of The Bronx, died on April 21 at the age of 88. Dr. Adlerblum graduated in 1923 from Cornell University Medical College. He was an emeritus member of the medical staff at Lenox Hill Hospital. Dr. Adlerblum was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Henry Alicandri, M.D., of Brooklyn, died on May 12 at the age of 74. Dr. Alicandri graduated in 1931 from New York University School of Medicine. He was an assistant, emeritus, in obstetrics and gynecology at Maimonides Medical Center. Dr. Alicandri was a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Lucien I. Arditi, M.D., of New York City, died on April 13 at the age of 53. Dr. Arditi graduated in 1954 from Washington University School of Medicine, St. Louis. He was an associate physician at The New York Hospital. Dr. Arditi was a Diplomate of the American Board of Internal Medicine (Cardiology), a Fellow of the American College of Cardiology, a Fellow of the American College of Physicians, and a member of the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Jacob Belenky, M.D., of Yonkers and The Bronx, died on January 23 at the age of 86. Dr. Belenky graduated in 1923 from the University of Maryland School of Medicine and College of Physicians and Surgeons. He was a member of the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Louis Blitzman, M.D., of New York City, died on May 3 at the age of 72. Dr. Blitzman graduated in 1933 from the University of Maryland School of Medicine and College of Physicians and Surgeons. He was an associate physician at Beth Israel Medical Center. Dr. Blitzman was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Cardiology, and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Robert Nesbitt Blodgett, M.D., of Hilton, died on May 17 at the age of 59. Dr. Blodgett graduated in 1944 from the University of Buffalo School of Medicine. He was a member of the medical staff at Lakeside Memorial Hospital (Brockport). Dr. Blodgett was a member of the American Academy of Family Physicians, the Monroe County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Gerardo Cubelli, M.D., of Queens Village, died on April 4 at the age of 53. Dr. Cubelli received his medical degree from the University of Naples in 1953. He was an assistant in medicine at Mary Immaculate Hospital. Dr. Cubelli was a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Francis Xavier Dever, M.D., of Glens Falls, died on March 26 at the age of 67. Dr. Dever graduated in 1943 from McGill University Faculty of Medicine. He was an obstetrician and gynecologist at Glens Falls Hospital. Dr. Dever was a Fellow of the American College of Obstetricians and Gynecologists and a member of the Warren County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Henry Bernard Dubins, M.D., of Albany, died on May 9 at the age of 70. Dr. Dubins received his medical degree from the University of Vienna in 1937. He was an ophthalmologist at Albany Medical Center, The Child's Hospital, and the Albany Veterans Administration Hospital. Dr. Dubins was a Diplomate of the American Board of Ophthalmology, a Fellow of the American College of Surgeons, and a member of the American Academy of Ophthalmology, the Pan American Association of Ophthalmology, the Albany County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Percival Henri Faivre, M.D., of Middletown, died on March 18 at the age of 86. Dr. Faivre graduated in 1920 from New York Homeopathic Medical College and Flower Hospital. He was a member of the Pan American Ophthalmological Association, the New York Ophthalmology Society, the Orange County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Leon Arthur Friedman, M.D., of Key Biscayne, Florida, formerly of Scarsdale, died on December 19 at the age of 72. Dr. Friedman graduated in 1932 from University and Bellevue Hospital Medical College. He was a member of the American Academy of Neurology, the American Geriatrics Society, the American Academy of Compensation Medicine, Inc., the Pan American Medical Association, the New York Neurological Society, the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

George Harrison Fuller, M.D., of Brockport, died on January 12 at the age of 79. Dr. Fuller graduated in 1930 from Syracuse University College of Medicine. He was a Fellow of the International College of Surgeons and a member of the American Academy of Family Physicians, the Monroe County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Arthur Vincent Graham, M.D., of Brooklyn, died on April 24 at the age of 75. Dr. Graham graduated in 1935 from New York University College of Medicine. He was an associate in general practice at Community Hospital of Brooklyn and an assistant general practitioner at Victory Memorial Hospital. Dr. Graham was a member of the American Academy of Family Physicians, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Jacob Joshua Glick, M.D., of Brooklyn, died on November 29 at the age of 77. Dr. Glick graduated in 1931 from New York Homeopathic Medical College and Flower Hospital. He was a member of the American Academy of Family Physicians, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Jacob Goldman, M.D., of Brooklyn, died on October 2 at the age of 71. Dr. Goldman graduated in 1933 from New York Medical College. He was a member of the American Academy of Family Physicians, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

John Ganley Hayes, M.D., of Albany, died on March 23 at the age of 77. Dr. Hayes graduated in 1930 from Harvard Medical College. He was an honorary obstetrician and gynecologist at Albany Medical Center. Dr. Hayes was a Fellow of the American College of Obstetricians and Gynecologists and a member of the Albany County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Paul Frederick A. Hoefer, M.D., of Brooklyn and New York City, died on February 9 at the age of 77. Dr. Hoefer received his medical degree from the University of Berlin in 1928. He was a consulting neurologist at The Presbyterian Hospital. Dr. Hoefer was a Diplomate of the American Board of Psychiatry and Neurology and a member of the American Neurological Association, the American Academy of Neurology, the Association for Research in Nervous and Mental Disease, the American Physiological Society, the New York Academy of Medicine, the New York Neurological Society, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Nusyn Nathan Huberman, M.D., of Brooklyn, died on April 20 at the age of 77. Dr. Huberman received his medical degree from the University of Paris in 1934. He was a member of the American Academy of Family Physicians, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Mendel Jacobi, M.D., of Brooklyn, died on November 11 in his 78th year. Dr. Jacobi graduated in 1925 from Columbia University College of Physicians and Surgeons. He was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, and a member of the American Association of Pathologists and Bacteriologists, the New York Academy of Medicine, the New York Cardiological Society, the New York State Society of Pathologists, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

German Rafael Jimenez, M.D., of Brooklyn, died on December 15 at the age of 53. Dr. Jimenez received his medical degree from the University of Santo Domingo in 1952. He was a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Isabel Knowlton, M.D., of Key West, Florida, formerly of New York City, died on February 28 at the age of 79. Dr. Knowlton graduated in 1924 from Tufts College Medical School. She was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph J. Kowles, M.D., of The Bronx, died on April 2 at the age of 80. Dr. Kowles graduated in 1925 from Columbia University College of Physicians and Surgeons. He was a consulting obstetrician and gynecologist at The Bronx-Lebanon Hospital Center. Dr. Kowles was a Fellow of the American College of Obstetricians and Gynecologists, a Fellow of the American College of Surgeons, and a member of the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Jerome L. Krieger, M.D., of Brooklyn, died on November 15 at the age of 72. Dr. Krieger graduated in 1931 from the University of Maryland School of Medicine and College of Physicians and Surgeons. He was a family practitioner at Long Island College Hospital and an associate physician at Baptist Hospital of New York. Dr. Krieger was a Fellow of the American College of Angiology, a Fellow of the International College of Surgeons, and a member of the American Academy of Family Physicians, the American Geriatrics Society, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Joseph Kriegler, M.D., of Lackawanna, died on April 17 at the age of 68. Dr. Kriegler graduated in 1936 from the University of Buffalo School of Medicine. He was an attending general practitioner at Our Lady of Victory Hospital. Dr. Kriegler was a member of the Erie County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Lawrence Robert Krivit, M.D., of Monroe, died on May 10 at the age of 50. Dr. Krivit graduated in 1959 from the Medical College of Virginia. He was a member of the American Academy of Family Physicians.

Louis Levin, M.D., of Miami Beach, Florida, formerly of Brooklyn, died on July 11, 1980, in his 80th year. Dr. Levin graduated in 1923 from Long Island College Hospital. He was a Fellow of the American College of Allergists and a member of the American Academy of Allergy, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Herman S. Lieberman, M.D., of New York City, died on March 28 at the age of 77. Dr. Lieberman graduated in 1930 from Temple University School of Medicine. He was a Diplomate of the American Board of Orthopedic Surgery and a member of the American Academy of Orthopaedic Surgeons, the Nassau County Medical Society, the Medical

Society of the State of New York, and the American Medical Association.

Manuel M. Monserrate, M.D., of Binghamton, died on April 20 at the age of 83. Dr. Monserrate graduated in 1923 from Georgetown University School of Medicine. He was a consulting otolaryngologist at Our Lady of Lourdes Memorial Hospital and an otolaryngologist at Binghamton General Hospital. Dr. Monserrate was a Diplomate of the American Board of Otolaryngology, a Fellow of the American College of Surgeons, and a member of the American Academy of Ophthalmology and Otolaryngology, the American Academy of Facial Plastic and Reconstruction Surgery, the Binghamton Academy of Medicine, the Broome County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Sebastian Thomas Pascale, M.D., of Long Island City, Astoria, and Manhasset, died on May 8 at the age of 55. Dr. Pascale graduated in 1948 from Long Island College of Medicine. He was chairman of and an attending in surgery at Jamaica Hospital, a staff surgeon at Booth Memorial Medical Center, an attending surgeon at St. John's Queens Hospital, and an associate surgeon at Queens Hospital Center. Dr. Pascale was a Diplomate of the American Board of Surgery, a Fellow of the American College of Surgeons, and a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Solomon Reich, M.D., of The Bronx, died on March 6 at the age of 93. Dr. Reich graduated in 1915 from New York Homeopathic Medical College and Flower Hospital. He was a member of the American Academy of Family Physicians, the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Julius C. Rivellese, M.D., of Brooklyn, died on May 29 at the age of 75. Dr. Rivellese received his medical degree from the University of Rome in 1933. He was a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Anthony John Schilero, M.D., of The Bronx and Mount Vernon, died on May 12 at the age of 69. Dr. Schilero graduated in 1938 from Eclectic Medical College of Cincinnati. He was an attending physician in electrocardiograms at Goldwater Memorial Hospital, a cardiologist at Mount Vernon Hospital, and an assistant in medicine at St. Agnes Hospital. Dr. Schilero was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Cardiology, a Fellow of the American College of Physicians, and a member of the American Geriatrics Society, the New York Cardiological Society, the New York State Society of Internal Medicine, the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Henry Shankman, M.D., of Flushing, died on April 28 at the age of 65. Dr. Shankman graduated in 1940 from the Royal Colleges of Scotland. He was a member of the American Academy of Family Physicians, the American Geriatrics Society, the Pan American Medical Association, the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Albert G. Shulman, M.D., of Binghamton, died on May 3 at the age of 69. Dr. Shulman graduated in 1938 from Syracuse University College of Medicine. He was an eye, ear, nose, and throat physician at Binghamton General and Our Lady of Lourdes Memorial Hospitals. Dr. Shulman was a Diplomate of the American Board of Otolaryngology and a member of the American Academy of Ophthalmology and Otolaryngology, the Binghamton Academy of Medicine, the Broome County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Edward John Simon, M.D., of Mount Vernon, died on February 6 at the age of 72. Dr. Simon graduated in 1934 from Washington University School of Medicine, St. Louis. He was an assistant cardiologist at Jewish Memorial Hospital and an adjunct in internal medicine at Yonkers Professional Hospital. Dr. Simon was a Fellow of the American College of Cardiology and a member of the Academy of Medicine, the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Sigurd Stousland, M.D., of Brooklyn, died on December 1 at the age of 62. Dr. Stousland received his medical degree from the University of Oslo in 1947. He was an associate in internal medicine at Lutheran Medical Center. Dr. Stousland was a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Ralph W. Watson, M.D., of New Rochelle, died on March 27 at the age of 75. Dr. Watson graduated in 1931 from New York Homeopathic Medical College and Flower Hospital. He was an emeritus physician in medicine at New Rochelle Hospital. Dr. Watson was a member of the Academy of Medicine, the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Harry Oscar Zamkin, M.D., of New York City, died on May 12 at the age of 91. Dr. Zamkin graduated in 1916 from Columbia University College of Physicians and Surgeons. He was an assistant (off service) in pediatrics at The Mount Sinai Hospital. Dr. Zamkin was a member of the New York Academy of Medicine, the New York Pediatric Society, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Albert Zucker, M.D., of Smithtown, died on April 6 at the age of 70. Dr. Zucker received his medical degree from the University of Hamburg in 1936. He was a consulting allergist at the John T. Mather Memorial Hospital, and an attending allergist at St. John's Episcopal Hospital and Smithtown General Hospital. Dr. Zucker was a Diplomate of the American Board of Allergy, a Fellow of the American College of Allergists, and a member of the American Academy of Allergy, the Suffolk County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

MEDICAL SOCIETY OF THE STATE OF NEW YORK

HOUSE OF DELEGATES

October 11 through 14, 1981
Grand Hyatt New York

Schedule of Sessions 1397
Officers, Councilors, and Trustees 1398
Members of the House 1401
Reference Committees 1405
Nominating Committee 1406
Report of the House Committee on Bylaws 1407

SCHEDULE of SESSIONS

Sunday, October 11
Opening Session .... 1:00 p.m.

Monday, October 12
Reference Committee Hearings .... 8:30 a.m. — 12:30 p.m.
Reference Committee Hearings .... 1:30 p.m. — 5:00 p.m.
Reference Committee Hearings .... 7:00 p.m. (to completion)

Tuesday, October 13
Second Session .... 9:00 a.m.
Third Session .... 1:30 p.m.
Fourth Session .... 7:00 p.m. (if necessary)

Wednesday, October 14
Closing Session .... 9:00 a.m.

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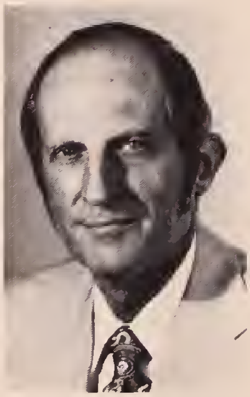

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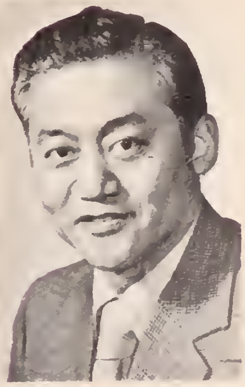

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1981 House of Delegates
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1975-1976—Ralph S. Emerson, Nassau
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Lloyd C. Peters, Binghamton
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Cayuga (1)
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Edward F. Steele, Elmira

Chenango (1)
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Clinton (1)
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Columbia (1)
Rosewell D. Shaw, Stottville

Cortland (1)
Nicholas J. Gabriel, Cortland

Delaware (1)
Glen Joshpe, Stamford

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Joseph A. Prezio, Buffalo

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Sidney Mishkin, Great Neck
Felix A. Monaco, Rockville Centre
John A. Ostuni, Freeport
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Walter A. Trenkle, Mineola
Jerome Zwanger, Massapequa

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James J. Kropelin, Niagara Falls
William C. Stein, Jr., Lockport

Oneida (*3*)
Clarke T. Case, Utica
Robert M. George, Utica
Robert B. Wallace, Utica

Onondaga (*5*)
Robert B. Bryant, Syracuse
Carl E. Marlow, North Syracuse
David L. Poushter, Syracuse
John T. Prior, Syracuse
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Orleans (*1*)
Antoine A. Nassar, Albion

Oswego (*1*)

Otsego (*1*)
Rodman D. Carter, Cooperstown

Putnam (*1*)
Zane A. Miranda, Carmel

Queens (*16*)
John W. V. Cordice, St. Albans
Alexander M. De la Garza, Flushing
Robert M. Farrell, Flushing
Fred N. Flatau, Flushing
Irving G. Frohman, Rockaway Beach
Leo Arthur Green, Jackson Heights
Victor Guarneri, Bayside
Edith Gutman, Whitestone
Nicetas H. Kuo, Flushing
Hilda Ratner, Woodside
Felix R. Rosenhain, Forest Hills
Paul B. Ross, Fresh Meadows
Morton M. Safran, Jamaica
Ralph E. Schlossman, South Ozone Park
Lester R. Tuchman, New York City
Ezra A. Wolff, Manhasset

Rensselaer (*2*)
Thomas D. Pemrick, Troy
William A. Whyland, Troy

Richmond (*3*)
B. Basil Hyman, Staten Island
Gerald J. Lustig, Staten Island
William A. Schwarz, Staten Island

Rockland (4)
S. Sheldon Katz, Monsey
Roy H. Lieberman, Nanuet
Stanley H. Oransky, Bardonia
Donald S. Waldorf, Nanuet

St. Lawrence (1)
Maurice J. Elder, Massena

Saratoga (1)
Jacob S. Feynman, Saratoga Springs

Schenectady (3)
Robert J. Cassidy, Schenectady
Richard H. Lange, Schenectady
John M. Spring, Schenectady

Schoharie (1)
Frederick J. Michel, Cobleskill

Schuyler (1)

Seneca (1)
Donald W. Bidwell, Seneca Falls

Steuben (2)
Mario A. Argentieri, Hornell
Wayne C. Templer, Corning

Suffolk (10)
William H. Bloom, Bay Shore
Stephen I. Braitman, Islip Terrace
Melvyn Bruckstein, Smithtown
Frank R. Collier, Port Jefferson
John G. Egner, West Islip
Phillip I. Levitan, Smithtown
Nathaniel B. Messinger, Islip Terrace
Frank H. Russell, Jr., Port Jefferson Station
Herman P. Saltz, Northport
Melvin Shuter, Islip Terrace

Sullivan (1)

Tioga (1)
John R. Scott, D.O., Apalachin

Tompkins (2)
Philip M. Iorio, Ithaca
Robert S. Perry, Ithaca

Ulster (2)
Norman N. Burg, Kingston
John Peter Roberts, Kingston

Warren (2)
Robert A. Francomano, Glens Falls
Betty L. Voelker, Glens Falls

Washington (1)
Michael J. Lynch, Granville

Wayne (1)
Norbert Menuhin, Newark

Westchester (9)
William P. Clark, Eastchester
Edwin I. Cleveland, Bronxville
Armond V. Mascia, Tarrytown
Stanley M. Mendelowitz, Tarrytown
Harry H. Moorhead, White Plains
Richard L. Petrillo, Mount Vernon
John A. Ramsdell, White Plains
Thomas Dignan Rizzo, Bronxville
Michael Sierp, Yonkers

Wyoming (1)

Yates (1)

Medical School Delegates – 12
Albany Medical College—Joseph Theobald Doyle, Albany
Albert Einstein College of Medicine—Alfred A. Angrist, Queens
Columbia University—Linda D. Lewis, New York
Cornell University Medical College—Jack Richard, New York
Mount Sinai School of Medicine—David A. Dreiling, New York
New York Medical College—Saverio S. Bentivegna, New York
New York University School of Medicine—Stanford Wessler, New York
State University of New York at Brooklyn—Stanley L. Lee, Kings
State University of New York at Buffalo—Ross Markello, Erie
State University of New York at Stony Brook—Tamarath K. Yolles, Suffolk
State University of New York at Syracuse—Edward A. Wolfson, Broome
University of Rochester—R. Gordon Douglas, Jr., Monroe

Medical Student Delegates – 2
Jeffrey Howard Dresner, New York City
Matthew Joseph Kuhn, Binghamton

REFERENCE COMMITTEES

Credentials

William A. Schwarz, Richmond, *Chairman*
Norman Burg, Ulster
Vernal G. Cave, Kings
John D. States, Monroe
Paul W. Sum, Cattaraugus

Reports of Officers

President
President-Elect
Secretary
Treasurer
Board of Trustees
Budget and Finance
Executive Vice-President
New York Delegation to the AMA
District Branches
Committee on District Branches
Physician's Home
Research and Development
Resume of Instuctions from the 1980 House of Delegates and Actions Thereon by the Council, Board of Trustees, Executive Committee, Officers, Council Committees, and Governmental Agencies
Robert E. Gordon, Kings, *Chairman*
David M. Benford, New York
B. Basil Hyman, Richmond
John T. Prior, Onondaga
William C. Stein, Niagara

Bylaws

Edgar P. Berry, New York, *Chairman*
James M. Flanagan, Wayne
Allison B. Landolt, Westchester
George Lim, Oneida
Daniel F. O'Keeffe, Warren

Scientific Activities, Publications, and Miscellaneous

Administrative Committee for the MSSNY Pension Program
Awards and Prize Essays
General Insurance
Medical School Relationships
Membership Benefits
New York State Society, American Medical Assistants, Advisory to
Publications

William P. Clark, Westchester, *Chairman*
John P.Albanese, The Bronx
James H. Cosgriff, Jr., Erie
Richard N. Pierson, Jr., New York
Charles R. Salamone, Monroe

Public Health and Education

Accident and Injury Prevention
Aging and Nursing Homes
Alcoholism
Cancer
Cardiovascular Disease
Child Abuse
Drug Abuse
Emergency Health Services
Environmental Quality
Health Care in Correctional Institutions
Maternal and Child Health
Medical Aspects of Sports
Mental Health
Metabolic Diseases
Physical Medicine and Rehabilitation
Preventive Medicine
School Health

Continuing Medical Education
Forensic Medicine
Information Technology in Medicine
Physicians' Committee
Scientific Program
Ralph E. Schlossman, Queens, *Chairman*
* Matthew J. Kuhn
Dattatraya G. Lanjewar, The Bronx
Nathaniel B. Messinger, Suffolk
Thomas D. Pemrick, Rensselaer

Medical Services

Cost Containment
Health Manpower and Rural Medical Service
Health Systems Agency Coordinating Committee
Hospital and Professional Relations
IPA-HMO
Interspecialty
Medicaid
Medical Care Insurance
PSRO
Socioeconomics
Worker's Compensation and Occupational Health
Duane M. Cady, Onondaga, *Chairman*
Clarke T. Case, Oneida
Charles S. LaMonte, New York
Felix R. Rosenhain, Queens
Tamarath K. Yolles, Suffolk

Governmental Affairs and Legal Matters

Ethics
Judicial Council
Federal Legislation
State Legislation
New York State Association of the Professions
Professional Medical Liability Insurance and Defense Board
Ad Hoc Committee to Meet with the Association of Trial Lawyers

Samuel M. Gelfand, Nassau, *Chairman*
Joyce M. McChesney, Monroe
Victor A. Panaro, Erie
Seymour R. Stall, Dutchess
M. Theodore Tanenhaus, Kings

Tellers

Lawrence Ravich, Nassau, *Chairman*
Nicetas H. Kuo, Queens
Carl E. Marlow, Onondaga
Bentley D. Merrim, Kings
James R. Nunn, Erie

Sergeant at Arms

Stephen R. Chernay, Dutchess, *Chairman*
Fred N. Flatau, Queens
Edmond J. Gicewicz, Erie
Thomas W. Greenlees, Schoharie
Donna Brayton O'Hare, New York

* Medical Student Membership Delegate.

NOMINATING COMMITTEE

To the House of Delegates, Ladies and Gentlemen:

In accordance with Article XI, Section 2 of the Bylaws of the Medical Society of the State of New York, the Nominating Committee met at the Society's headquarters, 420 Lakeville Road, Lake Success, New York, on Wednesday, May 6, 1981, at 10:30 a.m.

Members of the committee present were:
Member-at-Large—**G. Rehmi Denton, M.D.,** Albany, *Chairman*
First District Branch—**John A. Finkbeiner, M.D.,** New York
Second District Branch—**Samuel M. Gelfand, M.D.,** Rockville Centre
Third District Branch—**Margery W. Smith, M.D.,** East Berne
Fourth District Branch—**Daniel F. O'Keeffe, M.D.,** Glens Falls
Fifth District Branch—**Maurice J. Elder, M.D.,** Massena
Sixth District Branch—**John F. Spring, M.D.,** Binghamton
Seventh District Branch—**Joseph J. Kaufman, M.D.,** Canandaigua
Eighth District Branch—**William C. Stein, M.D.,** Lockport
Ninth District Branch—**Stanley L. Grossman, M.D.,** Newburgh
Member-at-Large—**William A. Schwarz, M.D.,** Staten Island

After careful consideration of the recommendations submitted by the district branches, county medical societies, and scientific sections in response to a memorandum, dated February 25, 1981, and nominations from the floor, your committee respectfully nominated the following candidates for election on October 14, 1981:

President—**Milton Rosenberg, M.D.,** Suffolk
President-Elect—**Richard D. Eberle, M.D.,** Onondaga
Vice-President—**Bernard J. Pisani, M.D.,** New York
Secretary—**Victor J. Tofany, M.D.,** Monroe
Assistant Secretary—**Allison B. Landolt, M.D.,** Westchester
Treasurer—**John A. Finkbeiner, M.D.,** New York
Assistant Treasurer—**Charles D. Sherman, Jr., M.D.,** Monroe
Speaker—**John L. Clowe, M.D.,** Schenectady
Vice-Speaker—**William P. Clark, M.D.,** Westchester
Trustee (one for five years)—**G. Rehmi Denton, M.D.,** Albany
Councilors (four for three years)—**Edgar P. Berry, M.D.,** New York
James M. Flanagan, M.D., Wayne
George Lim, M.D., Oneida
M. Theodore Tanenhaus, M.D., Kings

Delegates to the American Medical Association for two years commencing January 1, 1982:

David M. Benford, M.D., New York
John H. Carter, M.D., Albany
George L. Collins, Jr., M.D., Erie
Paul M. DeLuca, M.D., Broome
G. Rehmi Denton, M.D., Albany
John A. Finkbeiner, M.D., New York
James M. Flanagan, M.D., Wayne
Samuel M. Gelfand, M.D., Nassau
Robert M. George, M.D., Oneida
Allison B. Landolt, M.D., Westchester
Daniel F. O'Keeffe, M.D., Warren
George Lim, M.D., Oneida
Bernard J. Pisani, M.D., New York
Morton Kurtz, M.D., Queens
Charles D. Sherman, Jr., M.D., Monroe
M. Theodore Tanenhaus, M.D., Kings

The eight nominees receiving the largest number of votes will be delegates; the second eight will be alternates.

Respectfully submitted,

G. Rehmi Denton, M.D., *Chairman*

HOUSE COMMITTEE ON BYLAWS

To the House of Delegates, Ladies and Gentlemen:

The members of the House Committee on Bylaws are as follows:

Daniel F. O'Keeffe, M.D., *Chairman*	Warren
Edgar P. Berry, M.D.	New York
Rodman D. Carter, M.D.	Otsego
George L. Collins, Jr., M.D.	Erie
James M. Flanagan, M.D.	Wayne
Carl Goldmark, Jr., M.D.	New York
Allison B. Landolt, M.D.	Westchester
George Lim, M.D.	Oneida
Vincent I. Maddi, M.D.	Broome
Milton Rosenberg, M.D.	Suffolk
M. Theodore Tanenhaus, M.D.	Kings
Ralph M. Schwartz, M.D., *President, ex officio*	Kings
Victor J. Tofany, M.D., *Secretary, ex officio*	Monroe
Joseph F. Shanaphy, M.D., *Speaker, ex officio*	Richmond

A meeting of the Reference Committee on Bylaws was held at the Grand Hyatt Hotel in New York City on September 29, 1980. The Reference Committee was appointed to receive input from delegates as to their thoughts of the resolutions referred to the House Committee on Bylaws. The input received from the meeting of the Reference Committee on Bylaws proved to be of great assistance to the House Committee in its deliberations.

In all, thirteen resolutions asking for amendments to the Bylaws were referred to the Committee for consideration.

The following actions were taken with respect to the resolutions referred to this Committee.

Resolution 79-27, Age Qualification for Entitlement to Life Membership for Practicing Physicians

Introduced by Medical Society of the County of Queens

Whereas, The Bylaws of the Medical Society of the State of New York were changed to raise the age limit for life membership from seventy to seventy-five for "practicing" physicians; and

Whereas, The motivating factor for this change was the increase in the ratio of nonpaying members to the paying members; and

Whereas, Many practicing physicians over seventy years of age have a very limited practice, with limited income; and

Whereas, The increase in life membership age from seventy to seventy-five for these physicians is causing them to resign in bitterness; and

Whereas, Physician members with decreasing income are resigning from membership and the intended change in raising the age limit for life membership is, therefore, having the reverse effect; and

Whereas, Many of those resigning have been loyal, dues paying members for 30–40 years or more, and now feel betrayed, and are resentful, thus creating a poor image for MSSNY; and

Whereas, The Bylaws of the Medical Society of the State of New York should be amended to accommodate this change; therefore be it

Resolved, That Article II, Section 1, paragraph 6 of the Bylaws of the Medical Society of the State of New York be changed by deleting the word "seventy-five" and inserting the word "seventy" after the phrase "prior to the attainment of the age of."

Article II, Section 1, paragraph 6 would then read as follows:

> "An active member in good standing who has completely withdrawn from the active practice of medicine and who has been a member in good standing for the ten consecutive years prior to the attainment of the age of seventy years or an active member in good standing who continues the active practice of medicine and who has been a member in good standing for the ten consecutive years prior to the attainment of the age of seventy years, or an active member in good standing for ten consecutive years or more who is permanently disabled, may apply for life membership. The House of Delegates or the Council may waive the requirements in a proper case where there appear to be extenuating circumstances. He shall apply for such life membership to the component county medical society of which he is a member. His application shall be governed by the constitution and bylaws of the component county medical society relative to active membership."

and

Resolution 79-39, Life Membership

Introduced by Nassau County Medical Society

Whereas, The Medical Society of the State of New York amended its Bylaws in 1978 concerning life membership; and

Whereas, The Nassau County Medical Society, in considering the changes in the MSSNY life membership category, believes there is no justifiable reason why a physician should not be entitled to life membership at the age of 70 rather than 75; and

Whereas, NCMS also believes that a physician who retires from the active practice of medicine, irrespective of age, and has been an active member in good standing for ten consecutive years should also be entitled to life membership; therefore be it

Resolved, That Article II, Section 1, paragraph 6 of the Bylaws be amended by deleting the phrase "prior to the attainment of the age of seventy years" after the words "ten consecutive years" and deleting the word "seventy-five" after the phrase "attainment of the age of" and inserting the word "seventy."

Article II, Section 1, paragraph 6 would then read as follows:

"An active member in good standing who has completely withdrawn from the active practice of medicine and who has been a member in good standing for ten consecutive years or an active member in good standing who continues the active practice of medicine and who has been a member in good standing for the ten consecutive years prior to the attainment of the age of seventy years, or an active member in good standing for ten consecutive years or more who is permanently disabled may apply for life membership. The House of Delegates or the Council may waive the requirements in a proper case where there appear to be extenuating circumstances. He shall apply for such life membership to the component county medical society of which he is a member. His application shall be governed by the constitution and bylaws of the component county medical society relative to active membership."

Resolutions 79-27 and 79-39 were referred back to the Committee by the House of Delegates. Because of the similarity of content, Resolutions 79-27 and 79-39 were reviewed at the same time.

The Committee firmly believes that the provisions relating to Life Membership should not be changed at this time. It is believed that the Bylaws adequately provide for those situations involving financial hardship or other extenuating circumstances. Attention is directed to Article II, Section 1, paragraph 6 of the Bylaws which provides, "The House of Delegates or the Council may waive the requirements [for Life Membership] in a proper case where there appear to be extenuating circumstances."

The Committee, therefore, recommends **DISAPPROVAL** of Resolutions 79-27 and 79-39.

Resolution 80-1, Reduced Dues for Young Physicians Entering Practice

Introduced by Medical Society of the County of Kings

Whereas, Most residencies take five years, during which time these young physicians have a very limited income; and

Whereas, Start up expenses during the first two years of solo practice are enormous; and

Whereas, It is obviously of the utmost importance to attract these individuals to our ranks as early as possible; therefore be it

Resolved, That the Medical Society of the State of New York grant young physicians in solo practice an additional two years of reduced dues for a total of seven years, instead of the present five years (not counting military service) from the year of graduation; and be it further

Resolved, That Article XV "Dues," paragraph 3 of the Bylaws of the MSSNY be amended by the deletion of the word "five" and the insertion of the word "seven" in the first sentence, and the deletion of the word "seven" and the insertion of the word "nine" in the last sentence of the paragraph.

Article XV, paragraph 3 would then read:

"The dues and assessments of those active members who have been graduated from medical or osteopathic college not more than seven calendar years, not counting active service in the armed forces of the United States or in the United States Public Health Service, shall be one third the amount levied on all other active members. The dues and assessments of those active members who have not completed their continuous residency training shall be one tenth the amount levied on all other active members. In no case may an active physician continue to pay such reduced dues more than nine years after the date of graduation from medical or osteopathic school."

PAST HOUSE ACTION: Resolution 79-14

The House Committee on Bylaws recommends that a substitute resolution be approved which will entitle active members entering solo practice for the first time to pay half-dues for the first two years of solo practice. As recommended, such active member would qualify for half-dues status if he does not otherwise qualify for one-third dues status. In addition, the House Committee recommends that once an active member reaches full dues paying status, he cannot subsequently qualify for half-dues status even upon entering solo practice for the first time. The House Committee on Bylaws believes that this substitute resolution more equitably addresses the situation of the limited financial resources of young physicians entering solo practice.

The House Committee on Bylaws, therefore, voted to substitute Resolution 80-1 with a new resolution to read:

Resolved, That the Medical Society of the State of New York amend its Bylaws so that the dues and assessments of active members entering solo practice for the first time, who are not otherwise eligible for reduced dues as provided by Article XV, paragraph 3, shall be one half the amount levied on all other active members, for the first two years of solo practice; and be it further

Resolved, That Article XV, paragraph 3 be amended by adding two new sentences to read: "The dues and assessments of those active members entering solo practice for the first time, who are not otherwise eligible for reduced dues as set forth in prior provisions in this paragraph, shall be one half the amount levied on all other active members, for the first two years of solo practice; full dues shall be paid after the first two years of solo practice. Once an active member pays full dues, he shall no longer qualify for half-dues status."

Article XV, paragraph 3 would then read as follows:

"The dues and assessments of those active members who have graduated from medical or osteopathic college not more than five calendar years, not counting active service in the armed forces of the United States or in the United States Public Health Service, shall be one-third the amount levied on all other active members. [The dues and assessments of those active members who have not completed their continuous residency training shall be one-tenth the amount levied on all other active members.] * In no case may an active physician continue to pay such reduced dues more than seven years after the date of graduation from medical or osteopathic school. The dues and assessments of those active members entering solo practice for the first time, who are not otherwise eligible for reduced dues as set forth in prior provisions in this paragraph, shall be one half the amount levied on all other active members, for the first two years of solo practice; full dues shall be paid after the first two years of solo practice. Once an active member pays full dues, he shall no longer qualify for half-dues status."

Accordingly, the Committee recommends **APPROVAL** of the substitute resolution, for Resolution 80-1.

Resolution 80-11, Bylaws Amendments to Provide Staggering of Dues-Paid Deadlines at each Level of the Federation

Introduced by Medical Society of the County of Erie

Whereas, The Bylaws of the Medical Society of the State of New York provide that any active member, whose component county medical society and State Society dues are unpaid after May 1 of any current year is not in good standing and shall be deemed to be in arrears; and

Whereas, These Bylaws also provide that a member whose dues are unpaid after June 1 of any current year shall be dropped from the roles of membership of his component county medical society and the Medical Society of the State of New York; and

Whereas, The Constitution and Bylaws of the American Medical Association provide that a member is delinquent if his dues and assessments are not received by the American Medical Association by April 30 of the year for which they are prescribed, and shall forfeit his membership if dues and assessments are not received within thirty days after notice of delinquency has been mailed to the member's last known address; and

Whereas, It is administratively impossible for members' dues to be received, processed and transmitted from the County to the State, and hence to the AMA to meet identical deadlines presently stipulated in the above-mentioned bylaws when the member submits his dues payment within the prescribed period, but close to the May 1 or June 1 deadlines; therefore be it

Resolved, That Article XV — "Dues," paragraphs 6 and 7 of the Bylaws of the Medical Society of the State of New York be amended by the deletion of the words "and State Society" after the word "society," and the deletion of the words "May 1" and the insertion of the phrase "March 1, and State Society dues are unpaid after April 1" after the phrase "are unpaid after" in paragraph 6; the insertion of the words "county society" after the word "whose" and the deletion of the words "June 1" and insertion of the phrase "April 1 or whose State Society dues are unpaid after May 1" after the phrase "are unpaid after" in paragraph 7; to provide that, a member failing to pay component county dues by March 1 and State Society dues by April 1, shall be deemed to be not in good standing and in arrears; and that a member who fails to pay County dues by April 1 and State Society dues by May 1 shall be dropped from membership in the County and State Societies.

Article XV — "Dues" paragraph 6 and 7 of the Bylaws of the Medical Society of the State of New York would then read as follows:

"Any member, except a member who is eligible for and has applied for life membership, whose component county medical society dues are unpaid after March 1, and State Society dues are unpaid after April 1 of any current year or whose assessments are unpaid by the specified time is not in good standing and shall be deemed to be in arrears.

"A member whose county society dues are unpaid after April 1 or whose State Society dues are unpaid after May 1 of any current year or whose assessments are unpaid one month after the specified date shall be dropped from the roles of membership of his component county medical society and the Medical Society of the State of New York upon reasonable notice to such member by his component county medical society or the State Society, and without further action on the part of either the component county medical society or the State Society, and on such date he shall automatically cease to be a member of the component county medical society and State Society."

and be it further

Resolved, That Article II, Section 2, paragraphs 9 and 11 of the Bylaws of the Medical Society of the State of New York be amended by the deletion of the words "and the Medical Society of the State of New York" after the word "society," and the deletion of the words "May 1" and the insertion of the phrase "March 1, and State Society dues are unpaid after April 1" after the phrase "dues are unpaid" in paragraph 9; the insertion of the words "county society" after the word "whose" and the deletion of the words "June 1" and the insertion of the phrase "April 1 or whose State Society dues are unpaid after May 1" after the phrase "are unpaid after" in paragraph 11; so as to effectuate these changes. Paragraphs 9 and 11 would then read as follows:

"Any member, except a member who is eligible and has applied for life membership, whose component county medical society dues are unpaid after March 1, and State Society dues are unpaid after April 1 of any current year or whose assessments are unpaid by the specified time is not in good standing and shall be deemed to be in arrears."

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* Material indicated in brackets will be editorially deleted if Resolution 80-31, relating to resident membership, is adopted.

"A member whose county society dues are unpaid after April 1 or whose State Society dues are unpaid after May 1 or whose assessments are unpaid one month after the specified date shall be dropped from the rolls of membership of his component county medical society and the Medical Society of the State of New York upon reasonable notice to such member by his component county medical society, or the State Society, and without further action on the part of either the component county medical society or the State Society, and on such date he shall automatically cease to be a member of both the component county medical society and the State Society."

and be it further

Resolved, That Article XVIII, Section 3 of the Bylaws of the Medical Society of the State of New York be amended so as to substitute the word "April" for the word "May" in paragraph 3, line 8 thereof. Paragraph 3 as amended would then read as follows:

"The treasurer of each component county medical society shall forward to the treasurer of the Medical Society of the State of New York the amount of the State Society per capita dues and/or assessments and the amount of all American Medical Association dues collected from members of his component county medical society as promptly as possible but in any event before the first day of April of each year."

PAST HOUSE ACTION: Resolution 76-1

The House Committee on Bylaws does not believe that it is possible to establish separate dates in which a member is deemed in arrears or terminated from membership in the component county medical society from the date in which a member is deemed in arrears or terminated from membership in the State Medical Society. This is because membership in the Medical Society of the State of New York and component county medical society is coterminous.

The House Committee on Bylaws, therefore, voted to amend Resolution 80-11 to read:

Resolved, That Article XV, paragraphs 6 and 7 of the Bylaws of the Medical Society of the State of New York be amended to provide that a member whose component county medical society and State Society dues are unpaid after April 1 of any current year, shall not be in good standing and deemed to be in arrears; and that a member whose dues are unpaid by May 1 of any current year shall be dropped from the rolls of his county medical society and the Medical Society of the State of New York; and be it further

Resolved, That Article XV, paragraph 6 be amended by deleting the word "May" and inserting the word "April" in its place. Article XV, paragraph 6 would then read:

"Any member, except a member who is eligible for and has applied for life membership, whose component county medical society and State Society dues are unpaid after April 1 of any current year or whose assessments are unpaid by the specified time is not in good standing and shall be deemed to be in arrears."; and be it further

Resolved, That Article XV, paragraph 7 be amended by deleting the word "June" and inserting the word "May" in its place, and by inserting a new sentence to read: "In the case of nonpayment of dues, the reasonable notice to be provided shall commence on April 1, or as soon as possible thereafter, upon the determination that such member is in arrears."

Article XV, paragraph 7 would then read:

"A member whose dues are unpaid after May 1 of any current year or whose assessments are unpaid one month after the specified date shall be dropped from the roles of membership of his component county medical society and the Medical Society of the State of New York upon reasonable notice to such member by his component county medical society or the State Society, and without further action on the part of either the component county medical society or the State Society, and on such date he shall automatically cease to be a member of the component county medical society and State Society. In the case of non-payment of dues, the reasonable notice to be provided shall commence on April 1, or as soon as possible thereafter, upon the determination that such member is in arrears."; and be it further

Resolved, That Article II, Section 2, paragraphs 9 and 11 of the Bylaws of the Medical Society of the State of New York be amended so as to effectuate these changes by deleting the word "May" and inserting the word "April" in its place in paragraph 9; by deleting the word "June" and inserting the word "May" in its place and by inserting a new sentence to read: "In the case of nonpayment of dues, the reasonable notice to be provided shall commence on April 1, or as soon as possible thereafter, upon the determination that such member is in arrears," in paragraph 11. Article II, Section 2, paragraphs 9 and 11 would then read as follows:

"Any member, except a member who is eligible and has applied for life membership, whose component county medical society and Medical Society of the State of New York dues are unpaid after April 1 of any current year or whose assessments are unpaid by the specified time is not in good standing and shall be deemed to be in arrears . . ."

"A member whose dues are unpaid after May 1 or whose assessments are unpaid one month after the specified date shall be dropped from the rolls of membership of his component county medical society and the Medical Society of the State of New York upon reasonable notice to such member by his component county medical society, or the State Society, and without further action on the part of either the component county medical society or the State Society; and on such date he shall automatically cease to be a member of both the component county medical society and the State Society. In the case of nonpayment of dues, the reasonable notice to be provided shall commence on April 1, or as soon as possible thereafter, upon the determination that such member is in arrears."; and be it further

Resolved, That Article XVIII, Section 3 of the Bylaws of the

Medical Society of the State of New York be amended so as to substitute the word "April" for the word "May" in paragraph 3, line 8. Article XVIII, section 3 would then read:

"The treasurer of each component county medical society shall forward to the treasurer of the Medical Society of the State of New York the amount of the State Society per capita dues and/or assessments and the amount of all American Medical Association dues collected from members of his component county medical society as promptly as possible, but in any event before the first day of April of each year."

The Committee was in agreement that the resolution, as amended, would expedite the flow of dues and/or assessments collected by the component county societies to the State Society and/or AMA, as promptly as possible. In addition, as amended, clarification is made that May 1 shall be the final date before a physician automatically ceases to be a member for nonpayment of dues.

The Committee, therefore, recommends **APPROVAL** of Resolution 80-11, as amended.

Resolution 80-14, Distribution of Expense Money by the Medical Society of the State of New York to Each District Branch

Introduced by First District Branch

Whereas, Each district branch received $1,000 from the Medical Society of the State of New York to defray its expenses; and

Whereas, The First District Branch has over 12,000 members, while three district branches have less than 1,000 members, three district branches have less than 2,000 members, and two district branches have between 2,000 and 3,500 members; and

Whereas, The distribution of expense money is disproportionate in relation to the number of members in each district branch, and as such represents inequities; therefore be it

Resolved, That the Medical Society of the State of New York amend Article XVI, paragraph 6 of its Bylaws by the deletion of the phrase "not to exceed $1,000" and the insertion of the phrase "in proportion to the number of members in the district branch, $1,000 to district branches of less than 2,000 members; $2,000 to district branches of more than 2,000, but less than 4,000 members; $5,000 to district branches of more than 4,000 members" after the word "sum."

Article XVI, paragraph 6 of its Bylaws to read as follows:

"Each district branch shall be entitled to receive a sum in proportion to the number of members in the district branch, $1,000 to district branches of less than 2,000 members; $2,000 to district branches of more than 2,000, but less than 4,000 members; $5,000 to district branches of more than 4,000 members, exclusive of the work done by the Medical Society of the State of New York regarding notices, programs, and so on, to defray the expenses of such district branch, provided a proper statement of such expenses shall have been presented to the secretary."

Fiscal Note: $1,000 to district branches of less than 2,000 members; $2,000 to district branches of more than 2,000, but less than 4,000 members; $5,000 to district branches of more than 4,000 members. Total amount at current membership listings, $15,000.

PAST HOUSE ACTION: Resolution 68-55

The Committee amended the resolution so that the phrase "in accordance with" is substituted for the phrase "in proportion to," and that the phrase "The maximum allowable amount shall be" is inserted before "$1,000." The paragraph now reads:

"Each district branch shall be entitled to receive a sum in accordance with the number of members in the district branch. The maximum allowable amount shall be $1,000 to district branches of less than 2,000 members; $2,000 to district branches of more than 2,000 but less than 4,000 members; $5,000 to district branches of more than 4,000 members, exclusive of the work done by the Medical Society of the State of New York regarding notices, programs, and so on, to defray the expenses of such district branch, provided a proper statement of such expenses shall have been presented to the secretary."

The Committee, therefore recommends **APPROVAL** of Resolution 80-14 as amended.

Resolution 80-20, Deletion of Article XI, Section 4, Committee on Prize Essays

Introduced by Edward Siegel, M.D., as an Individual

Whereas, Article XI, Section 3 of the Bylaws of the Medical Society of the State of New York states that it shall be the duty of the Committee on Prize Essays to receive all essays offered in competition for prizes which may be offered by the Medical Society of the State of New York; and

Whereas, There is only one award given for a prize essay; and

Whereas, The reasons for creating a committee for this one item are no longer valid; and

Whereas, There is presently a Council Committee on Awards and Prize Essays; therefore be it

Resolved, That the Committee on Prize Essays be abolished, that its function be transferred to the Council Committee on Awards and Prize Essays, and that Article XI, Section 4 of the Bylaws of the Medical Society of the State of New

York be deleted.

Article XI, Section 4 of the Bylaws reads as follows:

"A Committee on Prize Essays shall be appointed by the president with the approval of the Council. It shall consist of three members, including the chairman. It shall be the duty of this committee to receive all essays offered in competition for prizes which may be offered by the Medical Society of the State of New York. The committee shall make all necessary rules and regulations for the awarding of prizes, subject to the term of the deeds of gift, and shall report the results at the next annual meeting of the House of Delegates. It shall give notice through the official publication of the State Society or by other methods of the amount of the prize and when the essays shall be submitted to the committee."

The House Committee on Bylaws believes that this is a housekeeping item.

The Committee, therefore, recommends **APPROVAL** of Resolution 80-20.

Resolution 80-30, Privileges of Student Members

Introduced by Richard N. Pierson, Jr., M.D., as an Individual

Whereas, Student members are encouraged to read the New York State Journal of Medicine; and

Whereas, Sending the New York State Journal of Medicine to all student members, whether or not requested by the student member, may be an unnecessary expense; therefore be it

Resolved, That Article II, Section 2 of the Bylaws of the Medical Society of the State of New York be amended by deleting paragraph 4 and by inserting a new paragraph 4 to read: "Student members shall be entitled to receive the *News of New York*. Each student member shall only be entitled to receive the *New York State Journal of Medicine* upon his individual written request. Student members shall not be entitled to receive the *Medical Directory of New York State.*"

Article II, Section 2, paragraph 4 of the Bylaws would then read as follows:

"Student members shall be entitled to receive the *News of New York*. Each student member shall only be entitled to receive the *New York State Journal of Medicine* upon his individual written request. Student members shall not be entitled to receive the *Medical Directory of New York State.*"

PAST HOUSE ACTION: Substitute Resolution for Resolutions 73-54, 73-89, and 73-103

The House Committee on Bylaws amended the resolution to add the phrase "on an annual basis" after the word "request," and to add the words "free of charge" at the end of the paragraph.

Article II, Section 2, paragraph 4 would then read as follows:

"Student members shall be entitled to receive the *News of New York*. Each student member shall only be entitled to receive the *New York State Journal of Medicine* upon his individual written request, on an annual basis. Student members shall not be entitled to receive the *Medical Directory of New York State* free of charge."

The Committee, therefore, recommends **APPROVAL** of Resolution 80-30, as amended.

Resolution 80-31, Resident Membership in the Component County Medical Societies and the Medical Society of the State of New York

Introduced by Richard N. Pierson, Jr., M.D., as an Individual

Whereas, The constitution and/or bylaws of the component county medical societies regarding membership of graduates of medical or osteopathic schools who are in continuous residency training are not uniform; and

Whereas, Some residents are unable to join component county medical societies because some component county medical societies either do not provide for membership for residents or expressly exclude residents; and

Whereas, Some deserving residents are therefore deprived of the benefits of membership by being excluded from membership by these bylaws; and

Whereas, The Medical Society of the State of New York is deprived of membership when a component county medical society excludes residents from membership; and

Whereas, Residents deprived of MSSNY membership in this manner may join the American Medical Association directly; and

Whereas, The AMA has in the past year successfully recruited approximately 3,000 "direct resident members" with dues at $35, indicating that there is interest among residents in organized medicine; and

Whereas, Less than 100 residents are members of MSSNY; and

Whereas, The AMA has agreed no longer to solicit or accept direct resident memberships if MSSNY component societies uniformly accept resident members; therefore be it

Resolved, That the Bylaws of the Medical Society of the State of New York be amended to require each county medical society to have in existence in its constitution and/or bylaws provisions to admit residents for membership; and be it further

Resolved, That Article XVIII, Section 2 of the Bylaws of the Medical Society of the State of New York be amended by adding paragraphs 5 and 6 to read:

"Every component county medical society shall provide for membership for graduates of recognized medical or osteopathic schools who are in continuous residency training. The constitution and/or bylaws of the component county medical society shall provide that residents shall be eligible for membership whether or not they are duly licensed and registered to practice in the State of New York. The resident members will have all the rights and privileges of active membership. Dues and assessments for the members in continuous residency training shall be no more than onetenth the amount levied on all other active members."

"Except by the approval of the Council, no resident may be a member in a component county medical society other than that of the county where he is in residency training or where he maintains his legal residence"; and be it further

Resolved, That Article II, Section 1, paragraph 1 of the Bylaws of the Medical Society of the State of New York be amended by deleting the word "four" and by adding the word "five" and by adding the phrase "(e) resident."

Article II, Section 1, paragraph 1 would then read as follows:

"The membership in the Medical Society of the State of New York shall be divided into five classes: (a) active, (b) life, (c) honorary, (d) student, and (e) resident; and be it further

Resolved, That Article II, Section 1 be amended by adding a new paragraph 9 to read:

"Resident memberships shall be limited to graduates of recognized medical or osteopathic schools who are in continuous residency training and who are resident members of a component county medical society. Any resident denied membership in the component county society (societies) not withstanding the provisions of Article XVIII, Section 2, paragraphs 5 and 6 of these Bylaws shall be eligible to join the Medical Society of the State of New York directly as a resident member"; and be it further

Resolved, That Article II, Section 2 of the Bylaws be amended by adding a new paragraph after paragraph 4 to read:

"The dues and assessments of resident members shall be no more than onetenth the amount levied on all other active members. The resident members shall be accorded all the rights and privileges of active membership. They shall be entitled to receive the *New York State Journal of Medicine* and the *News of New York*, but the *Medical Directory of New York State* only on request."

and be it further

Resolved, That Article XV, paragraph 3 of the Bylaws of the Medical Society of the State of New York be amended by deleting the sentence:

"The dues and assessments of those active members who have not completed their continuous residency training shall be onetenth the amount levied on all other active members."

Article XV, paragraph 3 will then read:

"The dues and assessments of those active members who have been graduated from medical or osteopathic college not more than five calendar years, not counting active service in the armed forces of the United States or in the United States Public Health Service, shall be one third the amount levied on all other active members. In no case may an active physician continue to pay such reduced dues more than seven years after the date of graduation from medical or osteopathic school."

The House Committee on Bylaws amended Resolution 80-31 in order to put into effect the following:

1. Create a resident class membership in which concurrent membership in a component county medical society is not required;
2. Include a grandfather clause so that residents who are currently members of any component county medical society will not have their membership status changed;
3. Create a procedure in which the residents are provided representation in the House of Delegates; and
4. Provide for dues for resident members.

Resolution 80-31, as amended, will now read:

Resolved, That the Bylaws of the Medical Society of the State of New York be amended to provide for resident membership in the Medical Society of the State of New York; and be it further

Resolved, That Article II, Section 1, paragraph 1 of the Bylaws of the Medical Society of the State of New York be amended by deleting the word "four" and by adding the word "five," and by adding the phrase "(d) resident."

Article II, Section 1, paragraph 1 would then read as follows:

"The membership in the Medical Society of the State of New York shall be divided into five classes: (a) active, (b) life, (c) honorary, (d) resident, and (e) student; and be it further

Resolved, That Article II, Section 1 be amended by adding a new paragraph 9 to read:

"Resident membership shall be limited to graduates of recognized medical or osteopathic schools who are in continuous residency training. Concurrent membership in a component county medical society is not a requirement for resident membership. This provision shall not affect the status of any individual currently in continuous residency training who became a member of a component county medical society prior to October 1981"; and be it further

Resolved, That Article II, Section 2 of the Bylaws be amended by adding a new paragraph 4 to read:

"The resident members shall be accorded all the rights and privileges of active membership. They shall be entitled to receive the *New York State Journal of Medicine* and the *News of New York*, but the *Medical Directory of New York State* only on request."; and be it further

Resolved, That Article III, Section 1, paragraph 1 be amended by adding the phrase "(e) duly designated delegate(s) from the resident membership."

Aricle III, Section 1, paragraph 1 would then read as follows:

"The House of Delegates shall be composed of (a) duly designated delegates from the component county medical societies; (b) officers of the Medical Society of the

State of New York, councilors, and trustees; (c) a duly designated delegate from each district branch; (d) a duly designated delegate from each scientific section; (e) duly designated delegate(s) from the resident membership; (f) duly designated delegates from the student membership; (g) the Commissioner of Health of the State of New York or a deputy designated by him, provided that any representative shall be a member of the State Society; (h) pastpresidents of the State Society and any pastpresident of the American Medical Association, provided that individual is a member of the Medical Society of the State of New York, who shall be a member for life; and (i) a representative from each of the medical schools in New York State, provided said representative is a member of the Medical Society of the State of New York."; and be it further

Resolved, That Aricle XV, paragraph 3 of the Bylaws of the Medical Society of the State of New York be amended by deleting the sentence: "The dues and assessments of those active members who have not completed their continuous residency training shall be onetenth the amount levied on all other active members."

Article XV, paragraph 3 would then read as follows:

"The dues and assessments of those active members who have been graduated from medical or osteopathic college not more than five calendar years, not counting active service in the armed forces of the United States or in the United States Public Health Service, shall be onethird the amount levied on all other active members. In no case may an active physician continue to pay such reduced dues more than seven years after the date of graduation from medical or osteopathic school."; and be it further

Resolved, That Article XV be further amended by the insertion of a new paragraph following paragraph 3 to read:

"The dues and assessments of resident members shall be onetenth the amount levied on active members."; and be it further

Resolved, That Article III, Section 1 be amended by adding a new paragraph 9 to read:

"At least sixty days prior to the annual meeting of the House of Delegates, the resident members shall meet for the purpose of electing the delegate(s) and alternate delegate(s) to which they shall be entitled in accordance with their membership rolls. The resident membership shall be entitled to one delegate and one alternate delegate and, according to the rolls of the Medical Society of the State of New York, sixty days prior to the annual meeting, one additional delegate for each additional 400 resident members. The maximum number of eligible delegates shall be three."

The House Committee on Bylaws fully believes that Resolution 80-31, as amended, will encourage membership and participation by residents in the Medical Society of the State of New York.

The Committee, therefore, recommends **APPROVAL** of Resolution 80-31, as amended.

Resolution 80-32, Student Membership

Introduced by Richard N. Pierson, Jr., M.D., as an Individual

Whereas, Article II, Section 1, paragraph 4 of the Bylaws of the Medical Society of the State of New York provides that whenever a student member ceases to be enrolled in a recognized school of medicine he shall be considered to have resigned from membership from the Medical Society of the State of New York; and

Whereas, It should be clarified that this clause does not apply to members who are no longer enrolled by reason of graduation; therefore be it

Resolved, That Article II, Section 1, paragraph 4 of the Bylaws be amended by inserting the phrase, "other than by reason of graduation" after the words "Doctor of Medicine" in the last sentence of paragraph 4.

Article II, Section 1, last sentence of paragraph 4 would then read as follows:

". . . When a student member ceases to be enrolled in a recognized school of medicine in the State of New York pursuing a course of study leading to a degree of Doctor of Medicine, other than by reason of graduation he shall be considered to have resigned from membership in the Medical Society of the State of New York";

and be it further

Resolved, That Article II, Section 1 be amended by adding a new paragraph after paragraph 4 to read:

"Upon graduation from medical school, the student member shall not be considered to have resigned from the Medical Society of the State of New York if he shall within a reasonable period apply for active membership or any other class of membership in which he shall be eligible."

The House Committee on Bylaws agrees that the first "Resolved" in Resolution 80-32 clarifies the fact that a student member is not deemed to have resigned from membership upon graduation from medical school. The Committee recommends that Resolution 80-32 be amended, however, by deleting the second "Resolved," since it is not necessary.

The Committee, therefore, recommends **APPROVAL** of Resolution 80-32 as amended.

Resolution 80-33, Membership for Students Enrolled in Osteopathic Schools

Introduced by Richard N. Pierson, Jr., M.D., as an Individual

Whereas, Under Article II, Section 1, paragraph 2 of the Bylaws of the Medical Society of the State of New York active membership is limited to graduates of recognized medical or osteopathic schools; and

Whereas, Under Article II, Section 1, paragraph 4 of the Bylaws of MSSNY student membership is limited to those members enrolled in recognized medical schools in the State of New York, who are pursuing a course of study leading to a degree of Doctor of Medicine; therefore be it

Resolved, That Article II, Section 1, paragraph 4 of the Bylaws of the Medical Society of the State of New York be amended by inserting the words "or osteopathic" after the word "medical" in line two; by inserting the words "or Doctor of Osteopathy" after the words "Doctor of Medicine" in line four; by inserting the words "or school of osteopathy" after the word "medicine" in line twelve; and by inserting the words "or Doctor of Osteopathy" after the words "Doctor of Medicine" in line fourteen.

Article II, Section 1, paragraph 4 would then read as follows:

"Student members shall be those members enrolled in recognized medical or osteopathic schools in the State of New York who are pursuing a course of study leading to the degree of Doctor of Medicine or Doctor of Osteopathy. Eligible students may become members of the Medical Society of the State of New York. Concurrent membership in a component county society and the American Medical Association is not a requirement for student membership. They shall apply for student membership on a form supplied by the secretary together with such dues as are fixed by the House of Delegates. When a student member ceases to be enrolled in a recognized school of medicine or school of osteopathy in the State of New York pursuing a course of study leading to a degree of Doctor of Medicine or Doctor of Osteopathy, he shall be considered to have resigned from membership in the Medical Society of the State of New York; and be it further

Resolved, That Article II, Section 1, paragraph 5 be amended by adding the words "or osteopathic" after the word "medical."

Article II, Section 1, paragraph 5 would then read as follows:

"A student member who is suspended from the rights and privileges of his medical or osteopathic school shall likewise be suspended for the same period from the Medical Society of the State of New York."

The House Committee on Bylaws agrees that since a graduate of an osteopathic school may qualify for active membership in the Medical Society, there is no reason why the student membership should not include students enrolled in recognized osteopathic schools in the State of New York. In addition, the House Committee on Bylaws has been advised that this resolution is not opposed by the student membership.

The Committee, therefore, recommends **APPROVAL** of Resolution 80-33.

Resolution 80-48, Unified Membership in County, MSSNY, and AMA

Introduced by New York County Medical Society

Whereas, The State of New York has a physician population of 48,000; and

Whereas, Only 26,100 (55%) are members of the Medical Society of the State of New York; and

Whereas, Of these 26,100 only 13,855 are members of the American Medical Association; and

Whereas, The AMA is the only "medical organization of medical organizations"; and

Whereas, The need for a unified membership becomes essential because of the encroachment of medicine by government and all other third parties; therefore be it

Resolved, That the Medical Society of the State of New York institute a campaign directed to all physicians in the State of New York advising them of the need for support and of the benefits which physicians derive by joining MSSNY and the American Medical Association; and be it further

Resolved, That membership in the county medical societies and MSSNY include unified membership in the AMA.

While the first "Resolved" in Resolution 80-48 does not request a change in the Bylaws, and therefore, is not properly brought before the consideration of the House Committee on Bylaws, it is nevertheless noted by the Committee that the substance of the first "Resolved" was adopted in Resolution 79-1. It has come to the attention of this Committee that the matter is currently being addressed as part of the Medical Society membership promotion campaign.

Although the Medical Society encourages AMA membership, the House Committee on Bylaws believes that AMA membership must remain voluntary. In the opinion of the Committee, mandatory membership in the AMA may cause the Medical Society to lose membership.

The Committee, therefore, recommends **DISAPPROVAL** of Resolution 80-48.

Resolution 80-51, Introduction of Resolutions

Introduced by Joseph F. Shanaphy, M.D., as an Individual

Whereas, Article III, Section 3, paragraph 4 of the Bylaws of the Medical Society of the State of New York provides that resolutions of the House of Delegates may only be submitted by members of the House of Delegates as individuals, or as delegates representing component county medical societies, district branches, and scientific sections, or by component county medical societies, district branches, and scientific sections; and

Whereas, The current Bylaws of the Medical Society of the State of New York does not provide any manner in which a delegate representing the student membership or a delegate representing a medical school may submit a resolution other than as an individual; and

Whereas, This situation has arisen solely through an oversight, and there is no good reason why a student delegate should not be permitted to submit a resolution as a representative of the student membership or why a representative from a medical school may not introduce a resolution as a representative of his medical school, or why a resolution may not be submitted in the name of the student membership; therefore be it

Resolved, That Article III, Section 3, paragraph 4 of the Bylaws be amended by adding the words "the student membership and medical schools" following the words "scientific sections" in line 4 and by adding the words "the student membership" following the words "scientific sections" in line 6. Article III, Section 3, paragraph 4 of the Bylaws would then read as follows:

"Resolutions may be submitted to the House of Delegates only by members of the House of Delegates as individuals, or as delegates representing component county medical societies, district branches, scientific sections, the student membership, and medical schools, or by component county medical societies, district branches, scientific sections, and the student membership."

The House Committee on Bylaws believes that the manner of introducing resolutions is needlessly redundant under Article III, Section 3, paragraph 4 and would remain so under Resolution 80-51. The Committee, therefore, recommends that Resolution 80-51 be amended as follows:

Resolved, That Article III, Section 3, paragraph 4 of the Bylaws of the Medical Society of the State of New York be amended by deleting the phrase "or as delegates representing component county medical societies, district branches, and scientific sections;" and by inserting the phrase "the student membership and medical schools" after the words "scientific sections."

Article III, Section 3, paragraph 4 would then read:

"Resolutions may be submitted to the House of Delegates only by members of the House of Delegates as individuals, or by component county medical societies, district branches, scientific sections, the student membership, and medical schools."

Note: If Resolution 80-31, relating to resident membership, is adopted, Article III, Section 3, paragraph 4 would read:

"Resolutions may be submitted to the House of Delegates only by members of the House of Delegates as individuals, or by component county medical societies, district branches, scientific sections, resident membership, the student membership and medical schools."

The Committee, therefore, recommends **APPROVAL** of Resolution 80-51, as amended.

Resolution 80-27, Proposed Revisions of the Principles of Professional Conduct

Introduced by Clifford L. Spingarn, M.D., as an Individual

Whereas, The Speaker of the House of Delegates has requested that a review of the PRINCIPLES OF PROFESSIONAL CONDUCT be made by the House Committee on Bylaws; and

Whereas, The fact that this study of the PRINCIPLES OF PROFESSIONAL CONDUCT has been called to the attention of the Committee on Ethics; and

Whereas, In the spirit of being cooperative with this study, the Council Committee on Ethics has proposed the attached update and revision of the PRINCIPLES OF PROFESSIONAL CONDUCT; therefore be it

Resolved, That the attached draft of the revised PRINCIPLES OF PROFESSIONAL CONDUCT be considered by the House Committee on Bylaws in accordance with Article XX of the Bylaws.

PROPOSED REVISIONS

PRINCIPLES OF PROFESSIONAL CONDUCT

DRAFT

CHAPTER I — *General Principles*

Section 1: The prime object of the medical profession is to render competent medical service with compassion and respect for human dignity.

Section 2: These Principles of Professional Conduct shall apply to doctors of medicine as individuals or as members of staffs of hospitals, clinics, colleges, schools, foundations, companies, partnerships, corporations or groups, by whatsoever name they may be known.

Section 3: The Medical Society of the State of New York does not prohibit the use of advertising when used in making certain information known to the public, which is entitled to know the names of physicians, the types of their practice, the location of their office, their office hours, fixed fees for specified routine professional services, and biographical data that will enable people to make a more informed choice of a physician.

The physician may furnish this information through the accepted local media for advertising; i.e., office signs, professional cards, dignified announcements, telephone directory listings, reputable directories and news media, which are open to all physicians on like conditions.

Solicitation of patients not in the public interest, directly or indirectly by a physician, by groups of physicians, clinics, institutions or organizations is unethical. Solicitation shall include:

(1) The not always obvious devices of furnishing or inspiring, by use of public relations firms or the news media, comments concerning cases in which the physician, group or institution has been or is concerned;

(2) the use of statements or claims intended or likely to create inflated or unjustified expectations of favorable results;

(3) the use of statements or claims that are self-laudatory and imply that the physician's skills are superior to other physicians engaged in his field or specialty of practice;
(4) offering gratuitous services or discounts in connection with professional services.

Section 4: Doctors of Medicine may provide appropriate information regarding important medical and public health matters which have been discussed during open medical meetings or in technical papers, which have been published, and he may reveal information regarding a patient's physical condition if the patient gives his permission, but he should seek the guidance of appropriate officials and designated spokesmen of component or constituent medical societies. When any sort of medical information is released to the public, the promise of radical cures or boasting of cures or extraordinary skill or success, is unethical.

Section 5:

(a) The acceptance of rebates on prescriptions or appliances or of commissions from attendants who aid in the care of the patient is unethical.
(b) When a patient is referred by one doctor of medicine to another for consultation or treatment, the offering, giving, soliciting or receiving any fee or other consideration is unethical.
(c) The prescription or dispensing by a doctor of medicine of secret medicines or other secret remedial agents, of which he does not know the composition or the manufacture or promotion of their use is unethical.
(d) A doctor of medicine shall not have any financial interest in or own a pharmacy or an optical dispensing facility, unless it is established to the satisfaction of the local county medical society that such participation or ownership is necessary to meet the needs of the community.
(e) Drugs, remedies or appliances may be dispensed or supplied by the physician provided it is in the best interests of the patient or in areas where they are not available.

CHAPTER II

Section 1: A doctor of medicine is free to choose whom he will serve. He should respond to any request for his assistance in an emergency.

Section 2: Once having undertaken a case, the doctor of medicine should not neglect the patient, nor should he withdraw from the case without giving notice to the patient and/or his relatives or his guardian sufficiently long in advance of his withdrawal to allow them to secure another medical attendant.

Section 3: The doctor of medicine should safeguard the confidences which he may receive from his patient; this obligation extends beyond the period of professional services. None of the privacies of individual or domestic life, no infirmity of disposition or flaw of character observed during medical attendance, should ever be divulged by doctors of medicine except when required by state law or by the courts.

Section 4: All voluntarily associated activities with cultists are unethical. Such activities lower the honor and dignity of the profession; in the same degree, it elevates the honor and dignity of the cultist.

CHAPTER III

Section 1: Every doctor of medicine should aid in safeguarding the profession against admission to it of those who are deficient in moral character or education.

Section 2: A doctor of medicine should expose, without fear or favor, incompetent or corrupt, dishonest or unethical conduct on the part of members of the profession.

CHAPTER IV

Section 1: Doctors of medicine should request consultations in perplexing cases, and the attending doctor of medicine should cheerfully consent to a consultation when desired by the patient or his representative.

Section 2: All due respect should be observed toward the doctor of medicine in charge of the case and no statement or remark should be made which would unjustly impair the confidence reposed in him.

Section 3: As soon as possible after the consultant has seen the patient, he should address the doctor of medicine in charge and advise him of the results of his investigation. Statements then may be made to the patient and/or his family or guardian in presence of all doctors of medicine concerned or unless another arrangement has been consented to by all physicians involved.

Section 4: The doctor of medicine in charge of the case is responsible for treatment of the patient. Consequently, he may prescribe for the patient at any time and is privileged to vary the treatment outlined and agreed on at a consultation whenever, in his opinion, such change is warranted. However, after such a change, it is best to call another consultation; then the doctor of medicine in charge should state his reasons for departing from the course decided at the previous conference. When an emergency occurs during the absence of the doctor of medicine in charge, a consultant may assume authority until the arrival of the doctor of medicine in charge.

Section 5: It may happen that the attending doctor of medicine and the consultant cannot agree in their views of the case or of the treatment to be pursued; with the consent of the patient another consultant may be called.

Section 6: When a doctor of medicine has acted as consultant in an illness, he should not become the doctor of medicine in charge in the course of that illness, except with the consent of the doctor of medicine who was in charge at the time of the consultation, unless the patient insists on the change.

Section 7: When a doctor of medicine makes social calls on another doctor of medicine's patient, he should avoid conversation about the patient's illness.

Section 8: A doctor of medicine should not take charge of, or prescribe for, another doctor of medicine's patient during any given illness (except in an emergency) until the other doctor of medicine has relinquished the case or has been formally dismissed.

Section 9: When a doctor of medicine does succeed another doctor of medicine in charge of a case, he should not disparage, by comment or insinuation, the one who preceded him. Such comment or insinuation tends to lower the confidence of the patient in the medical profession and so reacts against the patient, the profession, and the critic.

Section 10: When a doctor of medicine is called in an emergency because the personal or family doctor of medicine is not at hand, he should provide only for the patient's immediate need and should withdraw from the case on the arrival of the personal or family doctor of medicine. However, he should first report to the personal or family doctor of medicine the condition found and the treatment administered.

Section 11: Whenever a doctor of medicine requests another doctor of medicine to attend his patients during his temporary absence from his practice, professional courtesy requires the acceptance of such appointment if consistent with his other duties. The doctor of medicine acting under such an appointment should give the utmost consideration to the interests and reputation of the absent doctor of medicine. All such patients should be restored to the care of the latter upon his return.

CHAPTER V

Section 1: A doctor of medicine should not dispose of his services under conditions that make it impossible to render adequate service to his patients, except under circumstances in which the patient concerned might be deprived of immediately necessary care.

Section 2: Contract practice as applied to medicine means the practice of medicine under an agreement between a duly licensed doctor of medicine or a group of doctors of medicine, as principals or agents, and a corporation, organization, political subdivision, or individual, whereby partial or full medical services are provided for a group or class of individuals on the basis of a fee schedule, or for salary or for a fixed rate per capita. Contract practice per se is not unethical. Contract practice is unethical if it permits of features or conditions that are declared unethical in these Principles of Professional Conduct or if the contract or any of its provisions causes deterioration of the quality of the medical services rendered. Contract practice which allows diversion of fees for professional medical services to a hospital, organization, or political subdivision is unethical.

Section 3: It is not unethical for a fee to be prorated among two or more doctors of medicine when such physicians have actively participated in the medical and/or surgical care of a patient and each physician's fee is commensurate with the services he had rendered. The patient who has received such joint services shall be advised of the participation of each physician and shall receive a separate, itemized statement from each.

CHAPTER VI

Section 1: Doctors of medicine, as good citizens, possessed of special training, should promote the health of the community wherein they dwell. They should bear their part in enforcing the laws of the community and in sustaining the institutions that advance the interests of humanity. They should cooperate especially with the proper authorities in the administration of sanitary laws and regulations.

Section 2: Doctors of medicine should enlighten the public concerning quarantine regulations and measures for the prevention of epidemic and communicable diseases. At all times the doctor of medicine should notify the constituted public health authorities of every case of communicable disease under his care, in accordance with the laws, rules, and regulations of the health authorities. When an epidemic prevails, a doctor of medicine must continue his labors without regard to the risk of his own life.

Enforcement of the Principles of Professional Conduct

Component county medical societies should cooperate with the properly constituted authorities in the enforcement of the laws to the State of New York and of their respective localities relating to the public health and to the practice of medicine and should report promptly to such authorities any evidence received by them indicating any violation of such laws. The commission of an act or acts by a doctor of medicine which would subject him to reprimand or discipline or which would subject his license to practice medicine to revocation, suspension, or annulment shall constitute a violation of these Principles of Professional Conduct.

Amendments or Alterations

Any component county medical society may adopt other or amend or alter these regulations respecting professional conduct, binding only upon its own members if not inconsistent or in conflict with these Principles of Professional Conduct, or with the Bylaws of the Medical Society of the State of New York.

Enforcement, Discipline, and Punishment

Each component county medical society is charged with the duty of carrying out and enforcing, within its jurisdiction, the terms and provisions of these Principles of Professional Conduct. Any breach or infraction of any one or more of the terms or provisions of these Principles of Professional Conduct, or of any one or more of the terms or provisions of any further or additional regulations respecting professional conduct adopted as herein provided by any component county medical society shall subject the offender to and shall be sufficient cause for discipline. Each component county medical society, through bylaws provisions adopted in accordance with its own constitution and bylaws, and in accordance with the Bylaws of the Medical Society of the State of New York, shall (a) fix and determine the degree or degrees of discipline and the nature and extent of the penalty or punishment which may be imposed and shall (b) adopt its own rules and regulations of methods and procedure respecting all disciplinary investigations, proceedings, and action. Interpretations and rulings of each component county medical society with respect to these Principles of Professional Conduct or with respect to any further and additional regulations respecting professional conduct adopted by it as herein provided shall be binding upon its members until modified, revised, or reversed upon appeal by the Medical Society of the State of New York, or by a court of competent jurisdiction.

APPENDIX I

The Oath

I swear by Apollo the physician and Aesculapius and Hygeia and Panacea and all the gods and goddesses that according to my ability and judgment I will keep this Oath and this stipulation — to reckon him who taught me this Art equally dear to me as my parents — to share my substance with him and relieve his necessities if required — to look upon his offspring in the same footing as my own brothers and to teach them this Art if they shall wish to learn it without fee or stipulation — and that by precept, lecture and every other mode of instruction, I will impart a knowledge of the Art to my own sons and those of my teachers and to disciples bound by a stipulation and oath, according to the Law of Medicine, but to none others.

I will follow the system of regimen which according to my ability and judgment I consider for the benefit of my patients and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to anyone if asked nor suggest any such counsel; and in like manner I will not give to a woman a pessary to produce abortion. With purity and with holiness I will pass my life and practice my Art. I will not cut persons laboring under the stone but will leave this to be done by men who are practitioners of this work. Into whatever houses I enter, I will go into them for the benefit of the sick and will abstain from every voluntary act of mischief and corruption, and further from the seduction of females or males, of freemen and slaves. Whatever in connection with my professional practice or not in connection with it I see or hear in the life of men which ought not to be spoken of abroad I will not divulge, as reckoning that all such should be kept secret.

While I continue to keep this Oath unviolated, may it be granted to me to enjoy life and the practice of the Art respected by all men in all times. But should I trespass and violate this Oath, may the reverse be my lot.

Hippocrates
(460–357 B.C.)

Prayer

I begin once more my daily work. Be thou with me, Almighty Father of Mercy, in all my efforts to heal the sick. For without Thee, man is but a helpless creature. Grant that I may be filled with love for my art and for my fellowmen. May the thirst for gain and the desire for fame be far from my heart. For these are the enemies of Pity and the Ministers of Hate. Grant that I may be able to devote myself, body and soul to thy children who suffer from pain.

Preserve my strength, that I may be able to restore the strength of the rich and the poor, the good and the bad, the friend and the foe. Let me see in the sufferer the man alone. When wiser men teach me, let me be humble to learn, for the mind of man is so puny and the art of healing is so vast. But when fools are ready to advise me or to find fault with me, let me not listen to their folly. Let me be intent upon one thing, O Father of Mercy, to be always merciful to thy suffering children.

May there never rise in me the notion that I know enough, but give me strength and leisure and zeal to enlarge my knowledge. Our work is great and the mind of men presses forward forever. Thou has chosen me in thy grace, to watch over the life and death of Thy creatures. I am about to fulfill my duties. Guide me in this immense work so that I may be of avail.

Maimonides
(1135–1204 A.D.)

Declaration of Geneva

At the Time of Being Admitted as Member of the Medical Profession:

I solemnly pledge myself to consecrate my life to the service of humanity.

I will give to my teachers the respect and gratitude which is their due.

I will practice my profession with conscience and dignity.

The health of my patient will be my first consideration.

I will respect the secrets which are confided in me.

I will maintain by all means in my power, the honor and the noble traditions of the medical profession.

My colleagues will be my brothers.

I will not permit considerations of religion, nationality, race, party politics or social standing to intervene between my duty and my patient.

I will maintain the utmost respect for human life, from the time of conception; even under threat, I will not use my medical knowledge contrary to the laws of humanity.

I make these promises solemnly, freely, and upon my honor.

Adopted by the General Assembly of the World Medical Association at Geneva, Switzerland, September, 1948.

The House Committee on Bylaws decided to accept the proposed revisions to the Principles of Professional Conduct as submitted by Joseph G. Zimring, M.D., Chairman of the Committee on Ethics of the Medical Society of the State of New York as a substitute for Resolution 80-27. The proposed revisions provide:

PROPOSED REVISIONS
PRINCIPLES OF PROFESSIONAL CONDUCT

(Submitted by Joseph G. Zimring, M.D., Chairman, Committee on Ethics–4/19/81)

CHAPTER I–*General Principles*

Section 1: The prime object of the medical profession is to render competent medical service with compassion and respect for human dignity.

Section 2: These Principles of Professional Conduct shall apply to doctors of medicine as individuals or as members of staffs of hospitals, clinics, colleges, schools, foundations, companies, partnerships, corporations or groups, by whatsoever name they may be known.

Section 3: The Medical Society of the State of New York does not prohibit the use of advertising when used in making certain information known to the public, which is entitled to know the names of physicians, the types of their practice, the location of their office, their office hours, fixed fees for specified routine professional services, and biographical data that will enable people to make a more informed choice of a physician.

The physician may furnish this information through the accepted local media for advertising; i.e., office signs, professional cards, dignified announcements, telephone directory listings, reputable directories, and news media, which are open to all physicians on like conditions.

Solicitation of patients, directly or indirectly, by a physician, by groups of physicians, clinics, institutions or organizations is unethical. Solicitation shall include:

(1) The not always obvious devices of furnishing or inspiring, by use of public relations firms or the news media, comments concerning cases in which the physician, group or institution has been or is concerned;

(2) the use of statements or claims intended or likely to create inflated or unjustified expectations of favorable results;

(3) the use of statements or claims that are self-laudatory and imply that the physician's skills are superior to other physicians engaged in his field or specialty of practice;

(4) offering gratuitous services or discounts in connection with professional services.

Section 4:

(a) The acceptance of rebates on prescriptions or appliances or of commissions from attendants who aid in the care of the patient is unethical.

(b) When a patient is referred by one doctor of medicine to another for consultation or treatment, the offering, giving, soliciting or receiving any fee or other consideration is unethical.

(c) It is not unethical for a fee to be prorated among two or more doctors of medicine when such physicians have actively participated in the medical and/or surgical care of a patient and each physician's fee is commensurate with the services he had rendered. The patient who has received such joint services shall be advised of the participation of each physician and shall receive a separate, itemized statement from each.

Section 5:

(a) The prescription or dispensing by a doctor of medicine of secret medicines or other secret remedial agents, of which he does not know the composition or the manufacture or promotion of their use is unethical.

(b) A doctor of medicine shall not have any financial interest in or own a pharmacy or an optical dispensing facility, unless it is established to the satisfaction of the local county medical society that such participation or ownership is necessary to meet the needs of the community.

(c) Drugs, remedies or appliances may be dispensed or supplied by the physician provided it is in the best interests of the patient or in areas where they are not available.

(d) Contract medicine per se is not unethical. Contract practice which allows division of fees for professional medical services to a hospital, organization or political subdivision is unethical.

CHAPTER II

Section 1: A doctor of medicine is free to choose whom he will serve, except in the case of an emergency.

Section 2: Once having undertaken a case, the doctor of medicine should not neglect the patient nor should he withdraw from the case without giving adequate notice to the patient and/or relatives or guardian.

Section 3: The doctor of medicine should safeguard the patient's confidences within the constraints of the law.

Section 4: All voluntarily associated activities with anyone who violates the principle "of a method of healing founded on a scientific basis" are considered unethical.

Section 5: Doctors of medicine should request consultations when necessary or upon request of patient and/or family.

CHAPTER III

Section 1: The medical profession should safeguard the public and itself by exposing those physicians deficient in moral character or professional competence or who engage in illegal or unethical conduct.

Section 2: A doctor of medicine shall respect the rights of colleagues.

CHAPTER IV

Section 1: Doctors of medicine should strive continually to improve medical knowledge and skill. They can promote the health of their community by their contributions and by cooperating with the proper authorities in the administration of sanitary laws and regulations.

Amendments or Alterations

Any component county medical society may adopt other or amend or alter these regulations respecting professional conduct, binding only upon its own members if not inconsistent or in conflict with these Principles of Professional Conduct, or with the Bylaws of the Medical Society of the State of New York.

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Adopted by the General Assembly of the World Medical Association at Geneva, Switzerland, September, 1948.

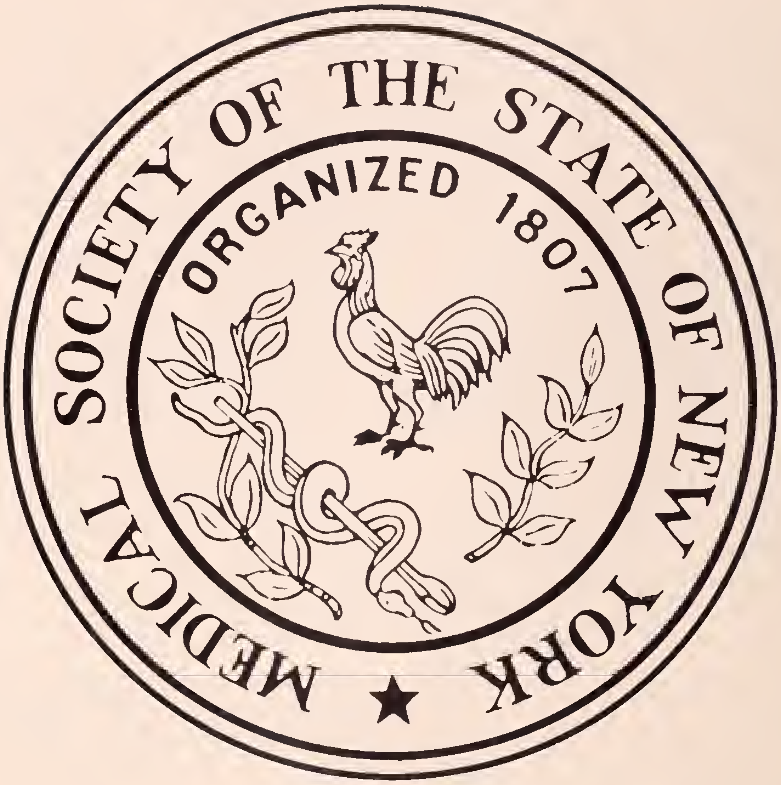
The House Committee on Bylaws feels that under the substitute proposal, the Principles of Professional Conduct will be more concise while the pertinent principles will remain intact.

The Committee, therefore, recommends **APPROVAL** of Resolution 80-27 as substituted.

Your chairman would like to thank in addition to the members of the Committee and the physicians who testified before it, those members of staff who have greatly aided this Committee; J. Richard Burns, J.D., General Counsel, Donald R. Moy, J.D., Staff Attorney, Mrs. Joan Grimm and Ms. Barbara Lacey, who provided their secretarial assistance to the Committee.

Respectfully submitted,

Daniel F. O'Keeffe, M.D. *Chairman*


MEDICAL SOCIETY OF THE STATE OF NEW YORK
ORGANIZED 1807

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"The practical effects of the proposed legislation are staggering," said Joseph Boyle, M.D., AMA Board Chairman. Dr. Boyle told the Senate Judiciary Subcommittee that "passage of this bill would have an adverse impact on critical physician-patient relationships and would create endless medical, ethical, and legal difficulties for the people of this nation."

Physicians could face serious dilemmas in advising pregnant patients, Dr. Boyle said. Under the bill, he noted, the physician would be responsible for the welfare of every fetus whose legal and health interest would, in the eyes of the law, be equal to, but may be in conflict with those of the woman."

Dr. Boyle listed some of the life-endangering conditions of pregnancy that physicians are presented with, and said the bill does not address these physician dilemmas or provide answers to physicians who must deal on a daily basis with these critical situations."

Effective medical intervention in these life-threatening situations would be prohibited under the measure, he said.

The issues raised by the bill go far beyond the realm of medical science and into social, religious, philosophical, ethical, and moral concerns, the witness said. "The issue is unsolvable solely from a medical and scientific view."

"In sum," concluded Dr. Boyle, "we see no end to the negative medical, legal, social, ethical, and moral repercussions of a national policy that declares that human life begins at the time of conception."

The bill in effect would allow the states to prohibit abortion for any reason. Anti-abortion advocates also have been pushing a Constitutional amendment that would achieve the same purpose. The outlook for either approach getting through Congress this year appears dim. To date, the lawmakers have concentrated their efforts on limiting the use of Medicaid funds for abortions.

* * *

Restricting freedom of choice for Medicaid beneficiaries would have a "devastating result" on the poor, the AMA has told Congress.

"A system under which Medicaid recipients have their freedom of choice restricted would result in an officially-sanctioned dual system of health care: one level of service for the poor, and a superior level of choice and options for everyone else," said Frederick Ackerman, M.D., Chairman of the AMA Council on Legislation.

The proposal was made by the Reagan Administration to accompany the five percent "cap" on federal Medicaid expenditures next fiscal year.

Testifying before the House Commerce Subcommittee on Health, Dr. Ackerman said the AMA endorses the concept of a "cap" as part of the President's program for improving the overall economic situation. We believe that if there is to be a general reduction in funds for federal programs across the board, health programs should shoulder their share of the cuts."

Taking issue with the curb on freedom of choice, however, Dr. Ackerman said "the individual should have the opportunity to select and change at will the physicians who serve him, or be permitted to choose to enroll in prepaid medical care organizations, or choose to use services provided by a closed panel or group practice."

This freedom is "fundamental," the AMA official declared.

The plight of the poor "would be even further aggravated" by another Administration proposal to eliminate current reimbursement requirements in the Medicaid law, Dr. Ackerman said. If Medicaid beneficiaries should remain eligible for quality care, "then it is important for all providers to receive reasonable reimbursement," Dr. Ackerman said.

Dr. Ackerman noted that the AMA in supporting a Medicaid "cap" has not suggested any particular figure. He expressed concern about the Senate Finance Committee's decision to lower the federal minimum matching percentage from 50 percent to 40 percent. This proposal would primarily hit 12 states and the District of Columbia. "The AMA believes that reductions should be sought which treat all states in fair and equitable manner," he said. "We believe that no state should be required to suffer cuts disproportionate to other states."

Achieving economies in Medicaid won't be easy, but states should be able to maintain essential services through greater efficiencies in administration and by elimination of fraud and abuse through vigorous enforcement of the law and judicious cutbacks where eligibility has become overextended," Dr. Ackerman said.

* * *

The question of whether the federal government has the right to forbid professional associations such as the AMA from enforcing ethical restrictions against advertising will be decided by the Supreme Court.

In a brief order, the Court agreed to hear the AMA's appeal from the 1979 FTC (Federal Trade Commission) ruling that barred the AMA from involving itself in physician advertising unless the advertising would be "false or deceptive" as defined by the FTC. After an Appeals Court by a 2–1 vote upheld the FTC last October, the AMA went to the Supreme Court, declaring the case is of "enormous importance" because it allows the government to "prevent professionals who have voluntarily associated together from taking a position against promotional practices which they believe to be deceptive."

As is customary, the high court gave no explanation for accepting the case for review. A hearing will be held this fall, following the summer recess. A decision won't be issued until later, probably next year.

The AMA said that if the FTC is upheld "the real loser will be the public, often the poor or unsophisticated, who are drawn to incompetent practitioners by the meaningless testimonials, inflated promises, nonverifiable claims of superiority, and outright lies that the AMA's 1976 statement (on advertising and solicitation) had condemned."

The Supreme Court was asked to hear the case "before responsible medical societies . . . simply abdicate the field to a government agency (FTC, which itself acknowledges that it is incapable of drafting precise guidelines)."

Joining the AMA in the appeal were the Connecticut State Medical Society and the New Haven County Medical Association, both of which were named in the FTC's original 1975 complaint. The American Dental Association supported the AMA position and has agreed to abide by rules similar to those set out for the AMA.

* * *

The FTC (Federal Trade Commission) has been challenged from another quarter. Legislation has been in-

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Medical Meetings

Hepatic Pathology

A course in continuing education on "Hepatic Pathology" will be held August 31 to September 4 for hepatologists, gastroenterologists, and pathologists, at the Armed Forces Institute of Pathology, Washington, D.C. The course director is Kamal G. Ishak, M.D., Ph.D. Sponsors are American Registry of Pathology, Armed Forces Institute of Pathology, and the American Association for the Study of Liver Diseases.

As an organization accredited for Continuing Medical Education, the Armed Forces Institute of Pathology (AFIP) certified that the Continuing Medical Education activities designated Category 1 meet the criteria on an hour for hour basis for the Physician's Recognition Award of the American Medical Association.

The Continuing Medical Education activities of the Armed Forces Institute of Pathology are acceptable for credit in Category 2D by the American Osteopathic Association.

Lucie Rudd Memorial Lecture

The first Lucie Rudd Memorial Lecture sponsored by the St. Luke's-Roosevelt Hospital Center, Department of Pediatrics, will take place on Monday, September 21, 1981. Guest lecturer, I. Ronald Shenker, M.D., will speak on Issues in Adolescent Medicine. For details contact: Joan Flanigan, M.D. C&Y Program, St. Luke's-Roosevelt Hospital Center, New York, N.Y., 10019, (212) 554-7254.

Fourth annual course

"Current Concerns in Adolescent Medicine: The Abused Adolescent and Abdominal Pain" will be presented September 24 and 25 at Loew's Warwick Hotel, 65 West 54th Street at the Avenue of the Americas, New York City, from 8:00 a.m. to 4 p.m., both days. This program is sponsored by the Department of Pediatrics, Long Island Jewish-Hillside Medical Center, and The Health Sciences Center, State University of New York at Stony Brook.

This continuing medical education offering meets the criteria for 14 credit hours from the ACCME (Accreditation Council for Continuing Medical Education). The ACCME is the successor organization to both the Liaison Committee on Continuing Medical Education and the Physician's Recognition Award of the American Medical Association.

For further information, contact: Ann J. Boehme, Continuing Education Coordinator, Long Island Jewish-Hillside Medical Center, New Hyde Park, N.Y. 11042; telephone (212) 470-2114.

9th Annual conference

The Center for the Study of Aging presents the 9th Annual Fitness After Fifty conference "Exercise and the Aging Response" October 2, 3, and 4, 1981, at the Institute on Man and Science in Rensselaerville, New York. This weekend conference with national authorities in exercise and aging is dedicated to improve the quality of life and lifestyles through exercise, rehabilitation, physical, mental, and holistic health.

Co-sponsoring agencies include: Northeastern Blue Cross and Blue Shield, The National Graduate University, The Institute on Man and Science, The National Council on Aging, The President's Council on Physical Fitness and Sports, and The American Geriatrics Society.

Continuing education credits are offered for physicians, nursing home administrators, physical therapists, and others.

Registration is limited. Inquiries should be directed to: Sara Harris, Executive Director, Center for the Study of Aging, 706 Madison Avenue, Albany, New York 12208; telephone: 518/465-6927 or 462-1331.

International symposium

The International "Thorax Centrum" symposium on applied physiology in clinical respiratory care will be held in Rotterdam, Holland, from November 19 to 21. For a copy of the program, please write or call: Mr. W. H. Roettger, Source Institute, Inc., P.O. Box 6106, Bridgewater, N.J. 08807; telephone: (201) 231-0123.

Annual meeting of the Association for Research in Nervous and Mental Disease, Inc.

The Association for Research in Nervous and Mental Disease, Inc., will hold its annual meeting on December 4 and 5, 1981, at the Waldorf-Astoria Hotel in New York City. This year's meeting will be devoted to the topic of "Epilepsy" and will summarize recent progress in this active field. The meeting will be held in conjunction with the American Epilepsy Society. They will have a day of free communication on December 3rd, 1981, on subjects related to epilepsy.

The Program Committee, Drs. Arthur Ward, Dominick Purpura, and J. Kiffin Penry, have selected a distinguished list of scientists, all of whom are in the forefront of their fields, to review the pertinent topics and present their own original contributions. The presentations will include discussion of mechanisms of neuronal excitability and neuronal pathophysiology, studies of neurotransmitter actions and intracellular neurochemical processes as they relate to an understanding of the epileptic process. There will be a comprehensive review of the mechanisms of action and clinical utilization of anticonvulsant drugs. Data regarding the genetics and epidemiology of epilepsy will be presented. Recent progress in diagnostic techniques will be surveyed including clinical studies using newer methods, clinical neurophysiological and radiographic techniques

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Material for inclusion in the medical meetings section must be received eight weeks prior to publication date.

Legal and Ethical Aspects of Treatment For Critically & Terminally Ill Patients

VISTA INTERNATIONAL HOTEL
WORLD TRADE CENTER
NEW YORK, NEW YORK

SEPTEMBER 25–26, 1981

Sponsored by: American Society of Law & Medicine and Concern for Dying

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Jane L. Greenlaw, J.D.
Angela R. Holder, J.D.
Ruth Macklin, Ph.D.
Dorothy Voorman, R.N.
Phyllis Mervis, M.S.W.
Fredrick Miller, J.D.
Robert Minion, J.D.
John Paris, S.J.
George Perera, M.D.
John Robertson, J.D.

For program information contact:

A Edward Doudera, J.D., Executive Director
American Society of Law & Medicine
520 Commonwealth Ave., Boston, MA 02215

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(positron emission tomography) with emphasis on the clinical utilization of these methods. Finally, psychosocial aspects of epilepsy will be discussed including the interface between epilepsy and behavior with particular emphasis on the role of stress and the interplay between epilepsy and aggression. The presentations will close with a discussion of the future perspectives for therapy.

Further information relative to this meeting can be obtained from the Secretary-Treasurer of the ARNMD, Bernard Cohen, M.D., Association for Research in Nervous and Mental Disease, Inc., Mt. Sinai School of Medicine, 1 Gustave Levy Place, Room 21-74, New York, N.Y. 10029; telephone (212) 348-8133.

Postgraduate course in ophthalmology

The Department of Ophthalmology of the State University of New York, Upstate Medical Center in Syracuse, will present its thirty-second Annual Postgraduate Course in Ophthalmology at the Hotel Syracuse, Friday and Saturday, December 4 and 5, 1981.

The following lecturers will participate: Kenneth R. Kenyon, M.D., Boston, Massachusetts; Daniel M. Albert, M.D., Boston, Massachusetts; and Myles Behrens, M.D., New York City.

Inquiries regarding the course may be forwarded to James L. McGraw, M.D., Department of Ophthalmology, State University of New York, Upstate Medical Center, 750 E. Adams Street, Syracuse, N.Y. 13210; telephone (315) 473-5253.

Lincoln Hospital to sponsor national symposium on trauma care

"Trauma Care '82," a national symposium on the systematic approach to treating critically injured patients, will be sponsored by John C. Lincoln Hospital and Trauma Center January 17–21, 1982, at the Alamos Resort in Scottsdale, Arizona.

Prior to the conference on January 15–16, Lincoln Hospital will sponsor an Advanced Trauma Life Support course offered by the American College of Surgeons.

Persons interested in obtaining more information about the trauma symposium or the Advanced Trauma Life Support course should contact Paul Halverson, administrative director of LIST, at (602) 943-3641 or write "Trauma Care '82," John C. Lincoln Hospital and Trauma Center, 9211 North Second Street, Phoenix, Arizona 85020.

Medical News

New York Academy of Medicine issues guidelines for attending physicians and residents

The NYAM (New York Academy of Medicine) has approved guidelines to resolve the conflict between attending physicians and residents over the increasing authority assigned to residents in hospital patient care. These guidelines are a result of a two-year study conducted by the Subcommittee on Hospital Practice at NYAM and were reported in the May, 1981, *Observer* of the American College of Physicians.

These standards advocate: explicitly defined and *written* residency training policies made available to the public by the institution; definition of authority and responsibility, with central authority belonging to the attending physician; measured and graded assumption of authority by residents under close supervision of attending staff; discretionary resident participation in surgical or other potentially hazardous procedures; and candid explanation to patients regarding the functions of the health team to facilitate his making an educated choice in accepting or declining treatment by hospital staff other than the primary physician.

The consensus of the study indicates that good education and good patient care can go hand-in-hand, once attending physician and resident roles are carefully defined.

Task force reports TB is on the rise in New York

A report issued in May by a statewide task force on tuberculosis cites the reemergence of this communicable disease as a threat to New Yorkers.

"The progressive decline in new cases of the disease in recent decades reversed dramatically in 1979 nationwide, including a 17 percent rise in New York City," explained William J. Hall, M.D., of Rochester, president of the New York Trudeau Society, the medical arm of the American Lung Association of New York State.

The task force report, entitled, "New Approaches to a Resurging Crisis," resulted from a statewide study commissioned by the Council of Lung Associations of New York State. Their findings call for aggressive and responsible action on the part of everyone involved in public health care.

While TB is increasing dramatically, U.S. Public Health Service support for the TB control program in New York has declined from a high of $1.4 million in 1974 to a low of $283 thousand in 1980, a drop of some 80 percent. As of May 15, 1981, this small amount has been reduced to approximately $75,000—a staff of one professional worker in New York City and one for the balance of the State.

"This level of effort must be regarded as inadequate," said Dr. Hall. "Tuberculosis, a disease which should be on the edge of extinction—we know how to prevent and control it—is actually on the rise."

Material for inclusion in the medical news section must be received eight weeks prior to publication date.

"In 1979, for the first time since 1963, the number of reported tuberculosis cases in New York increased and the problem continues," Dr. Hall explained. "There can be no greater shame for a society than to fail to prevent and control an infectious disease when it is able to do so," he concluded.

For more information on tuberculosis in New York, contact the American Lung Association, 8 Mountain View Avenue, Albany, New York 12205, (518) 459-4197.

CME film on anxiety receives international award

One of the motion pictures in a major continuing medical education program on anxiety has been awarded a CINE Golden Eagle Certificate, making it eligible to represent the United States in international film festivals.

The film, "Benzodiazepine Receptors," is one of six films in the CME program, produced by M.E.D. Communications under a grant from Abbott Laboratories. Juries of the CINE (Council on International Nontheatrical Events) selected it for submission to appropriate festivals abroad.

Animation of the benzodiazepine receptor in the human brain is featured in the motion picture. The film is narrated by Solomon H. Snyder, M.D., chairman and professor, department of neurosciences, The Johns Hopkins University School of Medicine. Moderator for the CME program and appearing in the film is Leo E. Hollister, M.D., professor of medicine, psychiatry, and pharmacology, Veterans Administration Medical Center and Stanford University School of Medicine.

The CME program on "Anxiety: The Therapeutic Dilemma" uses filmed case material to demonstrate clinical points and encourages audience participation. It is available free to hospitals and medical groups. Information about obtaining the program is available from M.E.D. Communications, 655 Florida Grove Rd., Hopelawn, N.J. 08861.

Other faculty for the program include David H. Mielke, M.D. (program coordinator), Tulane University School of Medicine; Julius Michaelson, M.D., past president, American Academy of Family Physicians, and Sidney L. Werkman, M.D., University of Colorado School of Medicine.

Cancer fellowships

The International Union Against Cancer, with the funds provided by the American Cancer Society, will award fellowships for **research on cancer.**

The awards will be granted to experienced investigators who have demonstrated their ability for independent research and who wish to broaden their experience by a period of study at a single institution in another country.

Fellowships will be granted only to persons on the staff of universities, teaching hospitals, research laboratories,

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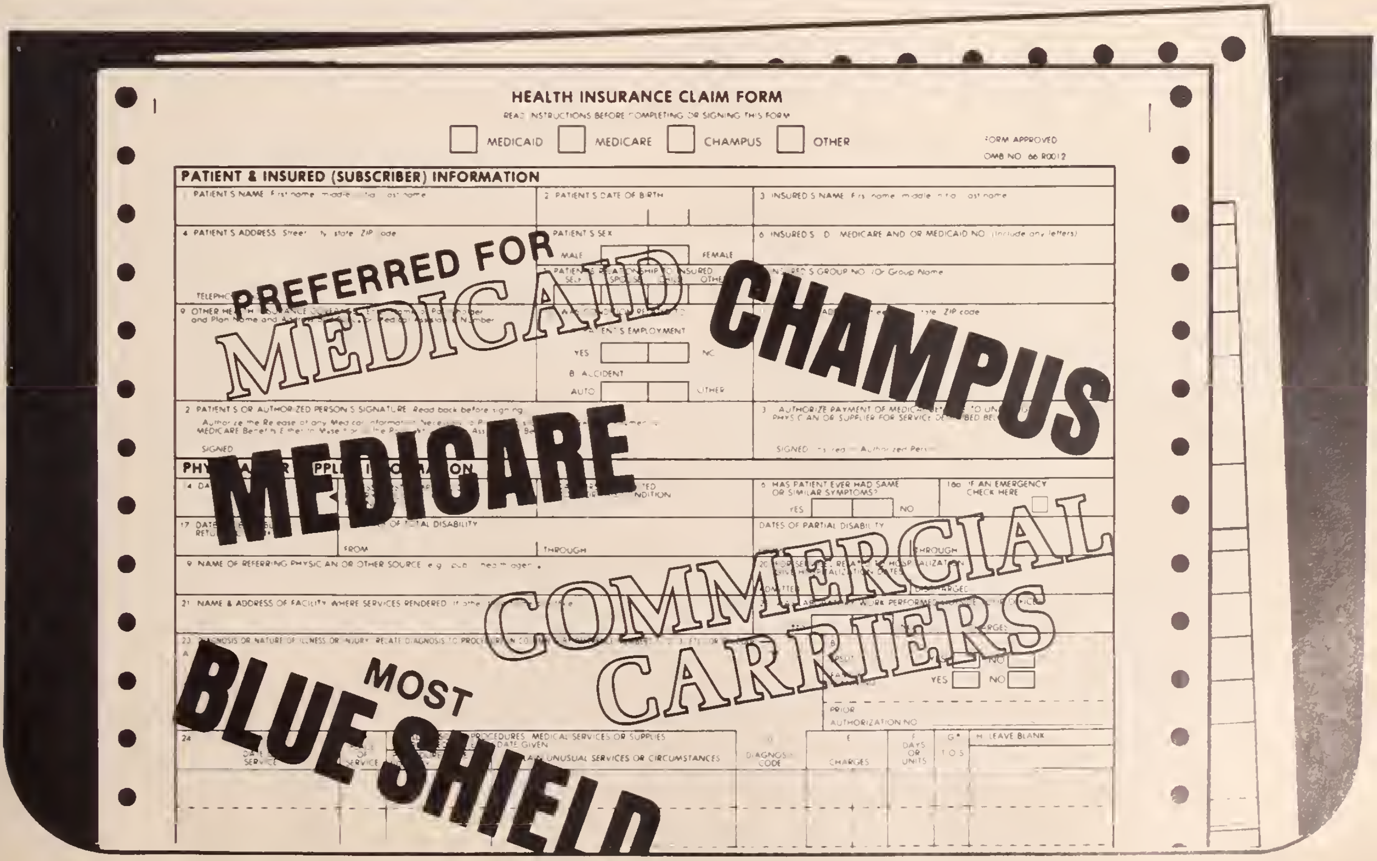

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or similar institutions.

Awards will be made to investigators who are devoting themselves either to the **experimental** or the **clinical** aspects of cancer research.

Fellowships will not be granted to persons who wish primarily to perfect their training in methods of cancer detection or in therapeutic techniques, or who wish to visit briefly several institutions abroad. The duration of the fellowships ordinarily will be one year but this period may be longer or shorter in special circumstances.

The stipend will be based on the current salary of the applicant and the salary of comparable qualifications in the place where the applicant expects to study.

An allowance will be made for the cost of travel of the fellow and of those dependents who will accompany him from his place of residence to the institution where he will work, and return.

Deadline for receiving applications and supporting documents: 1 October. Successful applicants may begin their Fellowship at any time during the twelve months' period beginning 1 May.

Application forms and additional information may be obtained from: International Union Against Cancer, rue du Conseil-Général, 3, 1205 Geneva, Switzerland.

The Yamagiwa-Yoshida Memorial International Cancer Study Grants are funded by the Japan National Committee for the UICC. These Study Grants are administered by the International Union Against Cancer.

They are designed to enable investigators of any nationality to gain experience in, or make comparative studies of, special techniques in both the biological and clinical aspects of cancer research.

The study grants will not be awarded for the purpose of visiting a number of institutes or of solely participating in congresses, conferences, and symposia.

They will be awarded for periods not exceeding 90 days.

Each grantee will receive a travel allowance, equivalent to tourist/economy air fare, and a living allowance towards the cost of board and lodging. No allowance will be paid for dependents.

The closing dates for receipt of applications will be 30 June or 31 December of each year.

Successful applicants will be notified within 90 days of each closing date. Study Grants must be activated within 180 days of the date of notification.

Application forms and additional information may be obtained from: The International Union Against Cancer, Conseil-Général 3, 1205 Geneva, Switzerland.

The International Union Against Cancer, with funds partly provided by the International Cancer Research Data Bank (ICRDB) of the National Cancer Institute of the United States of America, and partly by the International Union Against Cancer, will award "International Cancer Research Technology Transfer" grants for research on cancer.

The purpose of this programme is to promote direct and rapid person-to-person transfer of information about new or improved techniques or methods between investigators located in different countries who are working in areas of basic, clinical, or behavioural research in order to further the progress of cancer research.

The available funds are designed to permit investigators of any nationality* to visit a research centre or centres abroad for a period not exceeding 28 days. The funds cover travel and living expenses.

The selection of applicants will be on a continuous basis and the results of the selection will be communicated as rapidly as possible.

Additional information and application forms may be obtained from: **International Union Against Cancer, Conseil-Général 3, 1205 Geneva, Switzerland.**

The International Union Against Cancer, with funds provided by the Cancer Research Campaign (UK), will award fellowships for research on cancer. These are designed to enable investigators to work abroad to gain new experience in clinical or basic research in cancer. These fellowships are also open to investigators in the behavioural or social sciences relevant to cancer.

Fellowships will be granted only to persons on the staff of universities, teaching hospitals, research laboratories, or similar institutions. Applicants must have between two and ten year's post-doctoral experience (Ph.D., M.D., D.V.M.) or equivalent.

A fellowship will not be granted to a person who wishes primarily to perfect his training or who wishes to visit briefly several institutions abroad. The duration of the fellowships ordinarily will be one year but this period may be longer or shorter in special circumstances.

The stipend will be fixed on the basis of £9.000 per annum adjusted to the cost of living in the host country.

Travel of the fellow will be equivalent to tourist/economy class air fare. A round trip ticket will be provided to the spouse who wishes to join a fellow for six months or more.

Deadline for receiving applications and supporting documents: 1 October. Successful applicants may begin their Fellowship at any time during the twelve month period beginning 1 May.

Application forms and additional information may be obtained from: International Union Against Cancer, rue du Conseil-Général, 3, 1205 Geneva, Switzerland.

Free tours

Brookhaven National Laboratory's fifth summer tour session began on July 12. These tours will continue through August 30 from 10 a.m. and 3 p.m. on Sundays only.

For further information on the free Sunday Tours, call Brookhaven's Public Relations Office at (516) 282-2345.

President-elect selected

The Society of Surgical Oncology voted Gerald P. Murphy. M.D., D.Sc., director of Roswell Park Memorial Institute, president-elect at its annual meeting in Boston, May 11–13. More than 750 distinguished oncologists and surgeons are members of the Society.

The Society, founded in 1940, was originally known as the James Ewing Society in honor of the renowned surgical pathologist who devoted his career to oncology at Sloan-Kettering Cancer Center in New York City. It is dedicated to defining and promoting the surgeon's role in oncology.

Dr. Murphy, who served as vice-president of the Society in 1980, is also chairman of the Executive Board of the Damon Runyon-Walter Winchell Cancer Fund and the newly-elected chairman of the American Cancer Society's Medical and Scientific Committee.

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* In accordance with U.S. Federal Regulations, this Programme is not open to employees of U.S. Government Agencies.

USP advisory panel on radiopharmaceutical named

A new panel of experts in the field of radiopharmaceuticals has been selected to work with the USP (United States Pharmacopeial Convention, Inc.), in its drug-use information development programs. The USP Advisory Panel on Radiopharmaceuticals is one of 26 expert advisory panels which provide input into the publications of the USP Drug Information Division. In addition, the advisory panel provides advice to the USP Committee of Revision for the development of the official standards of strength, quality, purity, packaging, and labeling.

During its 1980–1985 term, the Panel will develop, review, and revise drug monographs for the annual editions of *USP Dispensing Information* (*USP DI*) and *About Your Medicines*, a new, lay language drug-use handbook. Panel members will also be involved in the continuing drug education and information programs of USP, including development of the bimonthly Updates to *USP DI*, a new consumer "About Your Medicines" newsletter, and a series of weekly newspaper columns.

The Radiopharmaceuticals Advisory Panel members were selected by its Chairman, Roscoe E. Miller, M.D., who was elected to the USP Committee of Revision by the 1980 Pharmacopeial Convention. Dr. Miller is Distinguished Professor and Chief, Gastrointestinal Radiology at the Indiana University School of Medicine.

Drug monographs must survive an exhaustive professional review process before being approved for inclusion in any of the USP publications. Drug use monographs for *USP DI* are first compiled in draft form by USP staff and are then presented for review by the appropriate advisory panel or panels. The revised draft is then published in the *USP DI Review*, a bimonthly publication, for public review and comment. The expert advisory panels then reconsider the monograph before submission to the Committee of Revision. The cycle may be repeated more than once before final consensus is achieved.

Named from the New York area has been: Merrill A. Bender, M.D., chief, Nuclear Medicine Department, Roswell Park Memorial Institute, Buffalo.

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The stipulation of dismissal was presented to Federal District Court Judge George Pratt on Friday, July 24, 1981, signed by him and entered in the District Court clerk's office. The lawsuit is thus officially over.

Medical Society of the
State of New York

Annual Dinner Dance

in honor of
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Sunday,
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Please send me ______tickets for the
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PLEASE NOTE: Reservations and ticket sales will close at 12 Noon on Sunday, October 11th, one hour before The House convenes.

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Please attach guest list

Annotations of Books Received*

ENVIRONMENTAL POLLUTION

Who's Poisoning America: Corporate Polluters and Their Victims in the Chemical Age. Edited by Ralph Nader, Ronald Brownstein, and John Richard. San Francisco, Sierra Club, 1981. Cloth cover, 369 pages. Price, $12.95.

Detailed studies of seven of the most publicized chemical pollution cases and the lessons to be learned for future prevention.

HEALTH SERVICES—U.S.

Health Care Delivery in the United States. Second edition. By Steven Jonas, M.D., and other contributors. New York, Springer Publishing Company, 1981. Paperback, 494 pages. Price, $16.95.

A text for an introductory course on the health care delivery system: how personal health services are organized and delivered in the United States.

STERILITY

Infertility: A Practical Guide for the Physician. Edited by Mary G. Hammond, M.D., and Luther M. Talbert, M.D. Chapel Hill, N.C., Health Sciences Consortium, Inc., 1981. Paperback, 134 pages. $

Working protocols in the attempt to standardize the evaluation and treatment of infertility patients.

BIOMETRY

Primer of Biostatistics. By Stanton A. Glantz, Ph.D. New York, McGraw-Hill Book Company, 1981. Illustrated, 352 pages. Paperback, $

An introductory text on the various tests and procedures in biostatistics.

PHYSIOLOGY

Neurophysiology IV. Edited by Robert Porter, M.D. Baltimore, Md., University Park Press, 1981. Illustrated, 256 pages. Cloth, $34.55.

Volume 25 in the Series of International Review of Physiology.

INSURANCE, PHARMACEUTICAL SERVICES

Pills & the Public Purse: The Routes to National Drug Insurance. By Milton Silverman, Philip R. Lee, and Mia Lydecker. Berkeley, University of California Press, 1981. Cloth, 232 pages. Price, $15.95.

Exploring the options in the regulation of the cost and quality of prescription drugs. Should national health insurance become a reality?

CARDIOLOGY

Cardiology, 1981. Edited by William C. Roberts, M.D., Dean T. Mason, M.D., Mary Allen Engle, M.D., and Lawrence H. Cohn, M.D. New York, N.Y. Yorke Medical Books, 1981. Illustrated, 364 pages. Cloth, $39.50.

The first of a projected annual summary of important developments in cardiology.

HOSPICES

Hospice: Complete Care for the Terminally Ill. By Jack McKay Zimmerman, M.D. Foreword by Dame Cicely Saunders. Baltimore, Md., Urban & Schwarzenberg, 1981. Hardcover, 191 pages. Price, $19.

A guide for those who are interested in, are developing, or are involved in the early stages of a hospice program.

ELECTROCARDIOGRAPHY

Learning Electrocardiography: A Complete Course. Second edition. By Jules Constant, M.D. Boston, Mass., Little, Brown and Company, 1981. Illustrated, 599 pages. Cloth, $29.50.

An updated and revised textbook in reading electrocardiograms using the question/answer format.

LITERATURE, MODERN

Don Carlos & Other Stories. By James A. FitzGerald, M.D. Washington, D.C., Bond Publishing Co., 1981. Cloth, 161 pages. Price, $9.95.

A collection of short stories taken from unusual occurrences in the field of medicine.

BRAIN—ATLASES

Serial Dissections of the Human Brain. By Carlton G. Smith, M.D., Ph.D. Baltimore, Md., Urban & Schwarzenberg, 1981. Illustrated, 93 pages. Hardcover, $14.50.

Photographs of serial dissections of the cerebral hemisphere and the cerebellum and the major pathways of the brain stem—for those who have an interest in the mechanisms of the brain.

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* Books received for review are acknowledged promptly in this column. No other obligation is assumed for the courtesy of those sending them for this purpose. Selection for review is made on the basis of merit and reader interest.

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troduced in Congress to impose a moratorium on the FTC's moves against state-regulated professions, including the medical profession.

Representative Thomas Luken (D., Ohio) has told the House that "one of the most questionable and controversial areas of expansion by the FTC in recent years has been its involvement in activities of state regulated professions." He continued: "Even though it has never been given express authority by Congress to do so, it has increasingly sought to usurp state responsibility, override state laws, and preempt state regulation of state regulated professions."

Luken said his bill would impose a moratorium on FTC action in the area until Congress determines what appropriate role, if any, the Commission should have with respect to state regulated professions.

Introduction of the legislation by Representative Luken and Representative Gary Lee (R., N.Y.) came shortly after word came from the FTC that it is preparing to release a lengthy study on the influence of professional health associations in planning, peer review, and rate-setting. A few days later, the Supreme Court announced its decision to hear the AMA versus FTC advertising ethics case.

* * *

The Supreme Court has pulled some of the teeth from the federal health planning law, ruling that it did not provide blanket antitrust immunity of the sort that would allow insurors to blackball hospitals that flout the planning program.

By a unanimous vote, the Supreme Court held that Blue Cross was not justified in boycotting a Kansas City, Mo., hospital—National Gerimedical Hospital and Gerontology Center—because the hospital's construction was not approved by the local planning agency on grounds the area had sufficient hospital beds.

Most state planning laws now require a certificate-of-need for such construction from the planning agencies, but in 1976 the Missouri planning agency—Mid-America—only advised against construction. The advisory nature of the planning agency's objection was stressed in the high court opinion.

Justice Lewis Powell said the action challenged in court was neither compelled nor approved by any governmental regulatory body. Instead, it was a spontaneous response to the finding of only an advisory planning body, he said.

The court said that there is no reason to believe that Congress specifically contemplated enforcement of advisory decisions of a Health Systems Agency by private insurance providers.

* * *

The Administration is exploring ways such as tax incentives to encourage employers to offer worksite prevention programs, HHS (Health and Human Services) Secretary Richard Schweiker has disclosed.

"If effective, this, in turn, would stimulate insurors and providers to offer preventive programs," he told a meeting on alcohol, drug abuse, and mental health problems.

Schweiker said employer programs pay dividends in terms of increased production, noting that alcohol abuse is estimated to cost $12.5 billion a year in lost productivity.

A health strategy "with prevention at its core offers us ways to foster health with a minimum of federal involvement and personal expense," the HHS Secretary declared.

A preventive measure that "can promote the health of millions of Americans" at little cost would be mandatory sodium labelling for all processed foods, the AMA has told Schweiker.

The AMA wrote Schweiker that food companies "have an obligation to at least let the public know how much sodium their products contain. There is no excuse for denying this basic, but vital, information. Without it, individuals cannot act to protect their own health."

Noting that excess sodium clearly aggravates high blood pressure in those who already have the disease, the AMA said mandatory sodium labelling "would generate very little expense to either government or the food industry."

* * *

Forty-six PSROs (Professional Standards Review Organizations) have been marked for termination within 90 days.

The HCFA (Health Care Financing Administration) said the closing notices were sent "due to the severely reduced budget which Congress finalized last week." Some $28 million was chopped from the $174 million allotment for the PSRO program.

The PSROs threatened with an abrupt cut-off of federal funds may appeal the decision at hearings beginning in mid-July.

The Reagan Administration has proposed phasing-out of the PSRO program over the next few years.

* * *

Donald Frederickson, M.D., Director of the NIH (National Institutes of Health), resigned effective July 1, declaring that "it is time to shed administrative duties for a while lest I forget completely how to be a scientist and a physician."

No policy differences with the Reagan Administration, which has been with NIH funds, prompted the resignation, according to NIH aides. Dr. Frederickson did not say what he will be doing next.

"I take this step with great ambivalence, for NIH is in the very marrow of my bones," he wrote in a letter to Health and Human Services Secretary Richard Schweiker. The resignation was accepted by Schweiker "with profound regret."

Dr. Frederickson has headed the NIH for six years. A career Public Health Service employee, he joined the National Heart Institute in 1953.

During his tenure as head of NIH, the government's medical research branch has continued to enjoy prestige but has been forced to live with ever-smaller budget increases for its activities.

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SELENIUM AND HUMAN NUTRITION

Orville A. Levander, Ph.D.
U.S. Department of Agriculture
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In 1957, Schwarz and Foltz[1] discovered that traces of selenium in the diet prevented nutritional liver necrosis in vitamin E-deficient rats. Very soon thereafter, selenium was found to protect against the development of certain vitamin E-associated animal diseases of practical agricultural importance, such as white muscle disease (nutritional muscular dystrophy) in lambs and calves and exudative diathesis in chicks and turkey poults. More recently, selenium has been shown to have desirable effects even in rats and chicks fed adequate amounts of vitamin E.

These beneficial effects of selenium were a significant "role reversal" for selenium because before these discoveries were made, the element had been regarded only as a poison, responsible for conditions such as alkali disease (chronic selenium toxicity) in livestock. Both selenium deficiencies and toxicities can occur in animals raised under natural conditions because of variations in the amount of selenium in the soil available for uptake by plants.

Biochemical Role of Selenium

For many years, nutritionists puzzled over the close metabolic relationship between selenium and vitamin E, two nutrients that are so dissimilar chemically. Early reserach had demonstrated vitamin E acts as a lipid antioxidant and most workers agreed that selenium must perform some vague antioxidant function in vivo. The situation was clarified considerably when selenium was shown to be a component of glutathione peroxidase, an enzyme known to destroy lipid peroxides.[2] A metabolic scheme was postulated whereby selenium via glutathione peroxidase eliminated any lipid peroxides that escaped the vitamin E antioxidant defense mechanism.[3] No other selenoenzymes have been characterized in mammals, but others have been isolated from microorganisms[4] so metabolic roles for selenium in mammals, in addition to glutathione peroxidase, cannot be ruled out. Since the role of selenium in animal nutrition is so well established, attention has now turned to determining what role it may play in the optimal nutrition of humans.

Evidence That Selenium May Be Nutritionally Essential for Humans

Several lines of evidence suggest that selenium is an essential trace element for humans. For example, the growth of human fibroblasts in culture is stimulated by selenium.[5] Also, the amount of selenium chemically bound to the enzyme glutathione peroxidase isolated from human erythrocytes is similar to that bound to the enzyme isolated from various animal sources.[6] Finally, recent work from both New Zealand and the People's Republic of China shows beneficial effects of small quantities of selenium given to persons thought to be consuming diets deficient in the element.

The New Zealand work[7] concerns a patient from a low-selenium area who had received long-term total parenteral nutrition due to complications after abdominal surgery. The patient developed severe muscular discomfort accompanied by loss of mobility that disappeared after supplemental selenium was added to the intravenous feeding solutions.

The work from China described Keshan disease, a cardiomyopathy that affects primarily children and is characterized by gallop rhythm, heart failure, cardiogenic shock, abnormal electrocardiograms and heart enlargement.[8,9] This disease is distributed in a long region running from northeastern China to the southwest and was shown to be associated with low levels of selenium in the blood and hair. Also, low levels of selenium were reported in several staple foods consumed in the affected areas. A large-scale intervention trial carried out over 4 years and involving more than 12,000 children demonstrated the efficacy of selenium in preventing this disease. However, the Chinese workers interpreted their data conservatively and suggested that factors other than selenium may be involved, since certain epidemiological features were not explainable only on the basis of selenium deficiency.

Dietary Sources of Selenium

The two richest dietary sources of selenium are seafoods and organ meats followed, in decreasing order, by muscle meats, cereals (depending on where grown), dairy products, and fruits and vegetables (reviewed in Reference 10). Several factors can influence the selenium content of a given food commodity but the most dominant factor is the amount of selenium in the soil available for uptake by plants grown in a particular agricultural area. Once taken up by the plants, the selenium is then passed up the food chain to animals and humans. Since crop plants are not known to require selenium, they are more or less passive indicators of the selenium available in the soils of different regions. Thus, the selenium content of wheat, for example, has been shown to vary over almost 3 orders of magnitude depending on where the grain was grown. Such variability in the selenium content of basic food staples makes estimation of the dietary selenium intake in different countries, or even different regions of countries, difficult unless samples representative of the food actually consumed are analyzed.

Limited studies with animal models have shown that there are differences in the nutritional bioavailability of selenium in different foods. The selenium in freeze-dried, water-pack tuna was less readily available to rats than that in beef kidney or wheat grown in a seleniferous area.[11] Selenium has been shown to protect against a toxicity of mercury in tuna,[12] perhaps partially as a result of complex formation with the mercury, and such complex formation may also help to explain the decreased nutritional availability of the selenium observed in the fish.[12]

Dietary Intakes of Selenium

There is a wide range of estimated dietary selenium intakes in various countries because of differences in the selenium content of soils in different parts of the world. In New Zealand, which is known to have selenium-poor soils, intakes as low as 28 μg/day have been reported.[13] On the other hand, intakes as high as 220 μg/day have been calculated in Venezuela,[14] which has an important agricultural production area in a high-selenium zone. Estimates of selenium intakes in the United States and Canada have ranged from 62 to 224 µg/day.[10] In a recent study of the selenium intakes of Maryland residents consuming self-selected diets, the mean intake of selenium was 81 ± 41 µg/day.[15] None of these diets provided less than 20 µg/day, 17% supplied less than 50 µg/day and 3% furnished more than 200 µg/day. The diets that were both highest in selenium and most selenium dense derived more protein and calories from seafoods, while the diets that were both lowest in total selenium and least selenium dense derived more protein and calories from dairy products and processed meats.

Dietary Requirements for Selenium

A "minimum daily requirement" for selenium of 20 µg/day was suggested on the basis of balance studies in New Zealand women consuming low-selenium diets.[16] The Chinese workers reported that no Keshan disease was seen in those areas in which the daily dietary intake of selenium exceeded 30 µg.[9] Long-term daily intakes of 28 to 32 µg have not been associated with any adverse human health effects in New Zealand.[13]

The Food and Nutrition Board has recently set a safe and adequate range of selenium intake of 50 to 200 µg/day for adults.[17] Since there is still uncertainty regarding the exact selenium requirement for humans, a range, rather than a specific level, was established. Most studies of North American diets have reported selenium levels in this range. The safe and adequate range was derived by extrapolation from research with animals since little work to determine requirements has been done with humans.[18] Although the precise level of selenium intake causing toxicity in humans is not clear, the upper limit of the safe and adequate range was set in order to guard against possible selenium overdosing through abuse of nutritional supplements.

A recent depletion/repletion study[19,20] showed that healthy young North American males suffered a 19% drop in plasma selenium levels after 2 weeks on a low-selenium formula diet (19 to 24 µg/day). After 45 days of depletion, the subjects lost about 1 mg of selenium or about 7% of the total body selenium stores. Supplementation with 200 µg/day of selenium as high-selenium wheat resulted in prompt restoration of the original plasma selenium levels.

Selenium and Human Health

The fact that selenium prevents such a diverse array of nutritional diseases in animals has led to considerations about its possible role in the maintenance of human health. Attempts have been made to link selenium with a number of human diseases including cancer and heart disease.

Levels of selenium in excess of the nutritional requirement prevent or delay the onset of chemically or virally induced cancers in laboratory rodents.[21] Also, certain inverse statistical associations have been made between dietary selenium intakes in certain countries or regions of countries and the incidence of cancer.[22] Such results have raised the question whether the optimal levels of selenium in the diet that satisfy the postulated nutritional requirement are the same as those needed for the prevention of cancer.[21] Some workers have advocated increased intakes of selenium (250 to 300 µg/day) either through selenium-rich diets or selenium supplements as a way of decreasing human cancer,[23] but others have concluded that human selenium supplementation is not called for at this time because there are reasonable doubts that selenium has any practical value against human cancer.[21] Moreover, certain studies with rodents suggest that some selenium compounds may cause cancer rather than protect against it.[24]

The Chinese experience with Keshan disease indicates that selenium at very low dietary intakes (about 30 µg/day) is required for proper heart function. As in the case of cancer, low-selenium intakes or blood levels have been associated with an increased incidence of cardiovascular disease.[25] However, in a multinational study, no differences were observed in the selenium concentrations of tissues from patients who died with or without myocardial infarction.[26] Thus, there appears to be little evidence that levels of selenium intake above those furnished by typical North American diets are of any help in counteracting human heart disease.

Summary

Selenium has a well-established role in animal nutrition and is gaining recognition as an essential trace element for humans as well. Its physiological role as a component of the lipid peroxide-destroying enzyme, glutathione peroxidase, explains its close metabolic relationship with the fat-soluble antioxidant vitamin E. Most North American diets furnish quantities of selenium that fall within the safe and adequate range of intake of 50 to 200 µg/day recently established by the Food and Nutrition Board. Some studies with laboratory rodents indicate that levels of selenium in excess of nutritional requirements protect against various forms of experimentally induced cancer, whereas other studies suggest that certain selenium compounds can cause cancer in rodents so the role of selenium in human cancer remains unresolved. Although reports from the People's Republic of China have associated Keshan disease, a juvenile cardiomyopathy, with very low dietary intakes of selenium (less than 30 µg/day), there is little evidence to suggest a role for selenium in human heart disease at more normal levels of intake.

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Reprinted from Contemporary Nutrition, General Mills, Inc., November 1980, Volume 5, Number 11.

Abstracts in Interlingua

Kanke, Y., Bashey, R. I., e Mori, Y.: Biochimia del glycosaminoglycanos; cognoscentia actual, **New York State J. Med.** 81: 1322 (Augusto) 1981.

Le glycosaminoglycanos ("GAG"), anteriormente denominate mucopolysaccaridos, es compostos intra le texito connective. Le structura e distribution in le texitos corporale es describite e su processos biosynthetic e degrative es commentate. Les morbos mucopolysaccaridoses que constitute un gruppo de morbos hereditari es le resultatos de alterationes del depositos o accumulationes ("storage") del GAG.

Feng, C. S.: Tests de laboratorio in le diabetes mellitus, **New York State J. Med.** 81: 1328 (Augusto) 1981.

Le tests de laboratorio usate in patientes con diabetes mellitus: glycemia, test oral del tolerantia al glucosa, glycosuria e glycohemoglobina, es commentate. Le importantia del evalutation clinic e del collection appropriate del monstras per le laboratorio pro inducer a le interpretation correcte del resultatos es illustrate. Le melior comprension del mechanismos e limitationes del tests de laboratorio pote adjutar al clinico pro attender adequatemente al pacientes. De accordo al opinion del autor, le laboratorio medic representa un attention directe del patientes.

Brandman, J. R., Ruckdeschel, J. C., O'Donnell, M. R., e Horton, J.: Cancer del pulmon ab cellulas parve; necrosis tumoral rapide conducente a infectiones pulmonari grave depost del chimiotherapia intensive, **New York State J. Med.** 81: 1332 (Augusto) 1981.

Le remission aggressivemente inducite per le chimiotherapia del cancer ab cellulas parve del pulmon ha essite, inevitabilimente, accompaniate con effectos adverse (cyclophosphamida, methyl-CCNU e sulfato de vincristina) resultante in infectiones pulmonari grave in le sito mesme del tumor intra 2 menses del initiation del tractamento. Le patiente I disveloppava un abscesso pulmonari in le sito necrotisate del tumor, como esseva visibile in le autopsia. Le patiente II disveloppava un empyema que poteva esser stabilisate depost le insertion de un tubo de drenage e del administration de antibioticos. In le culturas, le typic flora oral—aerobic e anaerobic—esseva disveloppate. Ambe patientes non esseva alcoholic e non habeva factores predisponente per aspiration. Le necrosis rapide del tumor, juncto con le intense leukopenia pote conducer a infectiones que devene apparente solmente quando le contage leukocytic retorna al normalitate.

Bapat, A. N., Malik, A., Delano, B. G., Stein, R. A., e Krasnow, N.: Abscesso mitral annulari; detection echocardiographic, **New York State J. Med.** 81: 1335 (Augusto) 1981.

Un nove trovato echocardiographic suggerente de abscessos del annulo mitral esseva observate in 3 patientes con insufficientia renal chronic e endocarditis staphylococcal. Le annulo produceva densitates ultrasonic blande e diffuse que variava con le stato clinic del patiente, e esseva associate con le folia posteriori del valve mitral in cata caso.

Albukerk, J.: Carcinoma hepatocellulari in adultos juvene, **New York State J. Med.** 81: 1341 (Augusto) 1981.

In le Statos Unite, le carcinoma hepatocellulari (CHC) es un neoplasma raremente trovate in adultos juvene. Durante un periodo de 2 annos, iste diagnose esseva facite in 3 patientes (16, 17 e 19 annos de etate). Le angiographia hepatic e le biopsia del ficato esseva particularmente utile per le confirmation de iste tumor. In le caso prime, un hepatitis chronic subclinic esseva associate a cirrhosis postnecrotic; in le caso secunde, le alcoholismo chronic esseva le causa etiologic. In le caso tertie, con tumor con cellulas characteristic de CHC—varietate unique de iste typo de cancer—un etiologia apparente non poteva esser establite.

Flanagan, T. D., e Deibel, R.: Infectiones del systema nervose central; observationes etiologic e epidemiologic in le Stato de Nove York durante 1978 e 1979, **New York State J. Med.** 81: 1346 (Augusto) 1981.

Le etiologia viral del infectiones del systema nervose central (SNC) esseva investigate in 1425 patientes in le Stato de Nove York, exclusive le Citate de Nove York, in 1978 e 1979. Le trovatos diagnostic esseva obtenite in 450 de iste patientes. Le enteroviruses continuva esser le plus commun del agentes neuropathogenic. Un numero non usual de virus de typo enteral, esseva observate in pueros e adultos juvene. Le virus del herpes simplex e illes del encephalitis de California esseva plus frequentemente trovate intra le virus non enteric. Le virus respiratori syncytial esseva fatal in un caso de Syndrome de Reye. Le virus del rubeola ("measles") esseva minus frequente que in annos anteriori; isto es concordante con le reduction integral del morbiditate per rubeola in le Stato e in le pais.

Translated by Eduardo I. Juliet, M.D.

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For further information contact Lila A. Wallis, M.D., The Association of Practicing Physicians of the New York Hospital, 1300 York Avenue, New York 10021. Tel: 212/737-4444.

Albert Einstein College of Medicine of Yeshiva University

1300 Morris Park Avenue
Bronx
* Robbins Auditorium-Forchheimer Building
September 25, Friday 8:30 a.m.–5:00 p.m.
SYMPOSIUM ON CONTINUOUS AMBULATORY PERITONEAL DIALYSIS CAPD STATUS & PROBLEMS 1981
Bertram Alpert, M.D., Robert E. Longnecker, M.D.
FEE: $50. CREDIT: AMA Cat. 1 (8 hrs.)
For further information contact Office of Continuing

Professional Education, Montefiore Hospital and Medical Center, 111 East 210th Street, Bronx 10467. Tel: 212/920-6676.

The Postgraduate Medical School of New York University Medical Center in conjunction with the Psychoanalytic Association of New York

550 First Avenue
9:00 a.m.–4:30 p.m.
September 26, Saturday
TREATMENT PROCESS IN PSYCHOANALYSIS AND PSYCHOTHERAPY by The Psychoanalytic Institute, NYU, Samuel Abrams, M.D., Harold P. Blum, M.D., Peter B. Neubauer, M.D., Shelley Orgel, M.D., Melvin A. Scharfman, M.D.
FEE: $50. CREDIT: AMA Cat. 1 (6 hrs.)
For further information write to Registration Department, NYU Post-graduate Medical School, 550 First Avenue, New York 10016.

NASSAU COUNTY

Long Island Jewish-Hillside Medical Center and The Health Sciences Center (SUNY)

* Loew's Warwick Hotel
65 West 54th Street (at Avenue of the Americas)
Department of Pediatrics
8:00 a.m.–4:00 p.m.
September 24, 25, Thursday and Friday
CURRENT CONCERNS IN ADOLESCENT MEDICINE: THE ABUSED ADOLESCENT AND ABDOMINAL PAIN
I. Ronald Shenker, M.D., Philip Lanzkowsky, M.D.
FEE: $165. CREDIT: AMA Cat. 1 (14 hrs.)
For further information contact Ann J. Boehme, Continuing Education Coordinator, Long Island Jewish-Hillside Medical Center, New Hyde Park 11042. Tel: 212/470-2114.

Nassau County Medical Center

2201 Hempstead Turnpike
East Meadow
September 25
TECHNIQUES IN EXTRACAPSULAR CATARACT SURGERY
David Nelson, M.D.
For further information contact Elsa K. Rahn, M.D., Director, Division of Ophthalmology, Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow 11554. Tel: 516/542-0123.

BUFFALO

State University of New York at Buffalo Children's Hospital

219 Bryant Street
Buffalo
* Buffalo Hilton Hotel
Buffalo
September 11–13
DIABETIC PREGNANCY AND THE INFANT
FEE: $200. CREDIT: AMA Cat. 1 (14 hrs.)
For further information contact Rayna Dutton, Coordinator, Continuing Medical Education, State University of New York at Buffalo, Children's Hospital, 219 Bryant Street, Buffalo 14222. Tel: 716/878-7689.

State University of New York at Buffalo

135 Cary Hall
3435 Main Street
Buffalo
* Niagara Hilton Hotel
Niagara Falls
September 12
FRONTIERS OF DRUG THERAPY
For further information contact State University of New York at Buffalo, 135 Cary Hall, 3435 Main Street, Buffalo 14214. Tel: 716/831-5526.

Roswell Park Memorial Institute co-sponsored by the Cancer Control Program of the Institute, and the American Cancer Society, New York State Division and Erie County Unit

September 17, Thursday
MEMBRANE RECEPTORS IN DISEASE
D. Doyle, Ph.D.
September 1982
EXPERIMENTAL THERAPEUTICS
Dr. Mihich
CREDIT: AMA Cat. 1 & AAFP
For further information contact Gayle Bersani, R.N., Cancer Control Coordinator, Roswell Park Memorial Institute, 666 Elm Street, Buffalo 14263. Tel: 716/845-4406.

NEWBURGH

Medical Society of the County of Orange, Inc. Cosponsored by Hahnemann Medical College

* Horton Memorial Hospital Auditorium
Middletown
8:30–10:30 a.m.
September 8, Tuesday
NEW MODALITIES IN THE TREATMENT OF COPD
Frederick Sachs, M.D.
NO FEE CREDIT: AMA Cat. 1 (2 hrs.)
For further information contact Paul Chellappa, M.D., Medical Society of the County of Orange, Inc., 465 Route 9W North, Newburgh 12550. Tel: 914/561-0381.

POUGHKEEPSIE

Marist College sponsored by St. Francis Hospital

Poughkeepsie
9:00 a.m.–5:00 p.m.
September 16
TEACHING DAY IN PSYCHIATRY FOR THE NON-PSYCHIATRIST
For further information contact Miss Catherine Tarella, St. Francis Hospital, Poughkeepsie. Tel: 914/471-2000, ext. 1386.

SYRACUSE

SUNY Upstate Medical Center

750 East Adams Street
Syracuse
* Hotel Syracuse
Syracuse
September 20–25
16TH ANNUAL REFRESHER COURSE IN ANESTHESIOLOGY
William Evers, M.D.
FEE: $325.

For further information contact Program Coordinator, Office of Continuing Medical Education, Upstate Medical Center, State University of New York, 750 East Adams Street, Syracuse 13210. Tel: 315/473-4304 or 473-4606.

VALHALLA

Westchester County Medical Center cosponsored by New York Medical College

Valhalla
September 24, 1:00 p.m.
ELECTROMYOGRAPHY IN CLINICAL PRACTICE—AN OVERVIEW
For further information contact Westchester County Medical Center, Valhalla 10595.

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COLLEGE OF PHYSICIANS OF PHILADELPHIA
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10-5-81

"I take particular case, Mr. Montague," returned the doctor, "as illustrating my remark, you observe. In this portion of Mr. Crimple's leg, sir, there is a certain amount of animal oil." Charles Dickens, *Martin Chuzzlewit*, 1843–1844. See page 1522.

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Reference 1 Hellerstein HK Friedman EH Sexual activity and the postcoronary patient Arch Intern Med 125 987 1970

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1501 Vasculitis; Associated with renal oncocytoma
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Annotations of Books Received*

ATHLETIC INJURIES

Sports Injuries: The Causes, Prevention and Treatment of . . . By Hans Kraus, M.D. New York, Playboy Press, 1981. Illustrated, 147 pages. Hardcover, $11.95.

For the everyday, amateur athlete.

EMERGENCIES—HANDBOOKS

Psychotropic Drugs: Manual for Emergency Management of Overdosage. Second edition. By Nathan S. Kline, M.D., and Jean-Pierre Lindenmayer, M.D. Oradell, N.J., Medical Economics Co. Book Division, 1981. Illustrated, 126 pages. Softcover, $15.95.

The revised and updated edition of the 1973 manual on how to save lives.

COMMUNITY HEALTH SERVICES

Preventive and Community Medicine. Second edition. Edited by Duncan W. Clark, M.D., and Brian MacMahon, M.D. Boston, Little, Brown and Company, 1981. Illustrated, 794 pages. Hardcover $24.95.

A textbook for medical and allied health student on the methods and etiology of prevention; the programs and services enabling prevention to be carried out; laws that regulate the practice of community and preventive medicine.

CARCINOGENS

A Theoretical Approach to the Preselection of Carcinogens and Chemical Carcinogenesis. By Veljko Veljkovic. New York, Gordon and Breach Science Publishers, 1980. Illustrated, 114 pages. Hardcover, $36.50.

An analysis of the problem of chemical carcinogenesis from the standpoint of physical principles.

HEALTH SERVICES RESEARCH

Using Nursing Research: Discovery, Analysis, and Interpretation. By Patricia Trussell, Anne Brandt, and Sally Knapp. Wakefield, Mass., Nursing Resources, 1981. Cloth, 240 pages.

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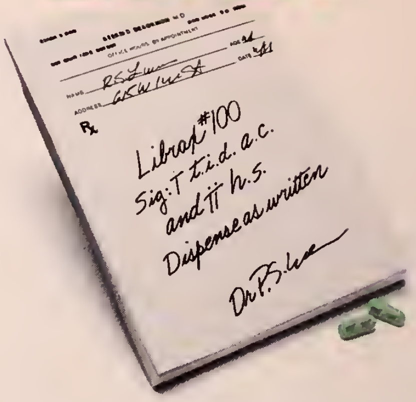
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1509 Hodgkin's Disease; Tracheoesophageal fistula during MOPP chemotherapy
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Grand Rounds In Medicine:
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Letters to the Editor

Mental health problems in the aging*

To the Editor: I was interested in the two special articles on mental health problems in the aging* featured in the April, 1981, issue. Our profession can certainly profit from the deeper understanding of the psychiatric needs and treatment approaches in this group. I would like to point out, however, that there was no mention of alcohol abuse and alcoholism in the elderly, a growing problem which has largely been ignored.

In the Third Special Report to the U.S. Congress on Alcohol and Health, the NIAAA (National Institute on Alcohol Abuse and Alcoholism) noted the significant number of persons over 60 years of age who experience problems with alcohol. Citing the work of Schuckit and Mill[1,2] and the NIAAA report by Armor et al.,[3] the prevalence of problem drinking among the elderly was reported at two percent for women and between two and ten percent for men. NIAAA further notes that about ten percent of the alcoholics in treatment are over 60.

The implication of alcohol abuse in general medical problems of the elderly is suggested by the finding that 18 percent of patients over 65 who were admitted to the acute medical ward of a large metropolitan hospital were active or inactive alcoholics. The interaction between alcohol and other psychoactive drugs in the elderly presents an additional hazard to which physicians should be alert.

I hope you will bring to your readers' attention this addition to an otherwise excellent discussion of the subject.

SHEILA B. BLUME, M.D.
Director, State of New York
Division of Alcoholism
and Alcohol Abuse
194 Washington Avenue
Albany, N.Y. 12210

References

1. Schuckit, M. A.: Geriatric alcoholism and drug abuse, Gerontol. 17: 168 (1977).
2. Schuckit, M. A., and Miller, P. L.: Alcoholism in elderly men: a survey of a general medical ward, Ann. New York Acad. Sc. 273: 558 (1975).
3. Armor, D. J., Johnson, P., Polich, S., and Stambul, H.: Trends in U.S. Adult Drinking Practices, summary report prepared for the National Institute on Alcohol Abuse and Alcoholism under Contract No. ADM 281-76-0020, Santa Monica, California, Rand Corporation, 1977.

Reply by Dr. Pardes

To the Editor: I thank Dr. Blume for directing attention to the problem of alcohol abuse and alcoholism in the elderly. She is clearly correct that the problem is serious and growing. She is also correct in her contention that the problem has been largely ignored.

The federal programs adopted by the Congress to help combat such problems are administered by the Alcohol, Drug Abuse, and Mental Health Administration. Its programs are carried out through the agency's three institutes: the National Institute on Alcohol Abuse and Alcoholism, the National Institute on Drug Abuse, and the National Institute of Mental Health. These Institutes endeavor to collaborate on crosscutting issues which affect special populations.

The National Institute of Mental Health has recently initiated a program within the Center for Studies of Mental Health of the Aging to identify critical research questions related to alcohol use in the elderly and to coordinate efforts to address these questions.

An early focus of this program has been on questions related to the interaction between alcohol and other psychotropic drugs. Another focus is on the association between alcohol use and the organic brain syndromes. We believe that this program will provide answers to questions which are critical to practicing physicians.

In later life, following retirement from the workplace, the alcoholic is less likely to be identified and, if identified, may fall victim to the pessimistic and fatalistic attitudes of many of the health care providers discussed in our April article. It is particularly important that the elderly alcoholic be identified and properly treated since alcohol adversely affects the same organ systems that have a high morbidity in advanced age. Thus, as Dr. Blume points out, there is an intimate relationship between excessive alcohol consumption and a variety of health problems in the later years.

Again, I thank Dr. Blume for sensitizing us to one of the serious health problems that confront our aged citizens.

HERBERT PARDES, M.D.
Director, Alcohol, Drug Abuse,
and Mental Health Administration
National Institute of Mental Health
Rockville, Md. 20857

Chronic granulomatous hepatitis

To the Editor: Lee Slavutin, M.D., in the April issue of the New York State Journal of Medicine describes a remarkable case under the rubic "Chronic Granulomatis Hepatitis." * However, the exquisite presentation is much more than a "granulomatis hepatitis." There is well-nigh universal dissemination of granulomata into every organ system, massive in extent, including liver, spleen, lungs, lymph nodes, heart, meninges, kidney, periadrenal fat, stomach, and breast, inter alia.

Had this patient not been examined by full autopsy, she would have been considered another case of the limited syndrome as described by Simon and Wolff. This raises the question of how many of the reported cases at full au-

---

* Pardes, H.: The aging; mental health problems, New York State J. Med. 81: 798 (Apr.) 1981; Jacobson, S. B.: Psychiatric treatment in the aged, ibid. 802.

* Slavutin, L.: Chronic granulomatous hepatitis; with myocarditis and meningitis, New York State J Med. 81: 782 (Apr.) 1981.

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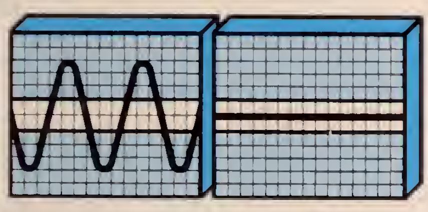

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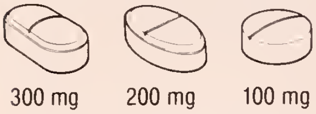

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Usage in Pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development, but neither have adverse effects on fetal development been established This is, unfortunately, true for most anti-asthmatic medications. Therefore, use of theophylline in pregnant women should be balanced against the risk of uncontrolled asthma
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Adverse Reactions: The most consistent adverse reactions are usually due to overdose and are
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Central Nervous System Headaches, irritability, restlessness, insomnia, reflex hyperexcitability, muscle twitching, clonic and tonic generalized convulsions
Cardiovascular Palpitation, tachycardia, extrasystoles, flushing, hypotension, circulatory failure, life threatening ventricular arrhythmias
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topsy might have shown generalized involvement and dissemination.

It is my opinion that this clinical picture and these tissue findings are more properly to be considered a systemic and constitutional reaction to a hitherto unrecognized noxious agent or agents. Slavutin is to be congratulated for his caution in claiming so little, but I think the facts warrant a bolder approach and a broader view.

LESTER TUCHMAN, M.D.
83 Orchard Street
Cos Cob, Connecticut 06807

Dr. Slavutin's reply

To the Editor: Thank you for your letter of July 1, 1981. Here is my response to Dr. Tuchman's Letter.

Dr. Tuchman correctly points out the systemic nature of this patient's disease. I described the case as "chronic granulomatous hepatitis" because that is how it presented, that is, fever of unknown origin plus hepatic granulomas.

I am in complete agreement with the suggested pathogenic mechanism of systemic reaction to an unidentified agent. The presence of epithelioid granulomas favors some kind of hypersensitivity reaction.

LEE SLAVUTIN, M.D.
Pathologist
Lenox Hill Hospital
100 East 77th Street
New York, N.Y. 10021

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How to find, read, understand, and evaluate research reports published in contemporary health care research literature.

WRITING

The Nurse's Guide to Writing for Publication. By Susan Kooperstein Mirin, R.N., M.S. Wakefield, Mass., Nursing Resources, 1981. Cloth, 209 pages.

A guide on how to: choose appropriate topics for specific journals, write a publishable article, understand the steps in the publishing process.

CARCINOMA

Manual of Cancer Chemotherapy. Third edition. Edited by S. Monfardini, K. Brunner, D. D. Crowther, D. Olive, J. MacDonald, S. Eckhardt, and J. Whitehouse. Geneva, Switzerland, International Union Against Cancer, 1981. UICC Technical Report Series, Volume 56. Paperback, 230 pages. $18, plus postage and packaging. (Available from above organization at 3 Rue du Conseil

Fundamental information about the theory and clinical practice of cancer chemotherapy, revised and updated.

Medical News

AMA publishes the sixth update to Current Procedural Terminology (CPT-4)

Over 60 revisions are included in the sixth update to the fourth edition of the Physicians' Current Procedural Terminology, the American Medical Association's comprehensive system for naming, coding, and reporting medical procedures and services.

The Summer, 1981, Update to CPT-4 includes the following changes:

1. The section on neurological surgery has been extensively revised.
2. In diagnostic radiology, the code numbers for reporting multiple views of the knee have been expanded.
3. CPT-4 codes for supervision and interpretation are provided for the performance of catheterization for cardiac radiography.
4. Coronary bypass angiography is now identified.
5. Osseous survey codes have been expanded.
6. Procedures for computerized tomography guidance for needle biopsy, cyst aspiration, and for placement of radiation therapy fields have been added.
7. Gastroenterology and gastric surgery sections now include prolonged recording of the esophageal reflux test and change of gastrostomy tube.
8. Cystourethroscopy with direct vision internal urethrotomy is now included.
9. Abortion by dilation and evacuation has been added.
10. A modifier device has been provided to record special computerized tomography procedures such as additional slices, follow-up, or limited studies.
11. New automated hemograms that include platelet counts are listed in hematology.
12. Additional new procedures in laboratory include tests for calcifediol, and calciferol endocrine receptor assays, leukocyte transfusion, KOH slide, and histochemical staining with frozen sections.

The sixth update was sent in July to individuals who have completed and returned the prepaid card included in the CPT-4 book.

Due to increased printing, labor and mailing costs, it has become necessary to institute a minimal service charge for future CPT-4 updates. This charge will be $5.00 per single copy for the seventh update.

CPT-4 was developed by and for physicians in response to the need for a uniform language that accurately designates medical procedures and services performed by physicians, thereby providing an effective means for reliable,

Material for inclusion in the medical news section must be received eight weeks prior to publication date.

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Will the professional liability problem ever be resolved?

There is not much we can do to change the present litigious environment nor, in my opinion, can we look to the State Legislature for help. We continue to hope that our legislators will write into law all of the recommendations made by the Governor's own McGill commission, but it doesn't appear as though they will.

A public fund established to serve as an insurance umbrella to protect physicians from unusually high awards granted because of poor results, rather than negligence, would be superb, but again, I doubt that it will be created. Can "wealthy" physician-defendants expect reasonable verdicts from sympathetic jurors? I wouldn't depend on it. Nonjury trials for medical professional liability cases though reasonable are unlikely. Something must be done and perhaps these suggestions will be helpful. If feasible one or more should be implemented as soon as possible:

(1) Create our own national umbrella insurance company with physicians and lay directors—the AMA should investigate this plan again. I believe it would do much to increase membership in our national organization.

(2) Establish risk management divisions in hospitals. Every hospital should adopt a plan to reduce the number of incidents that might lead to litigation.

(3) Physicians should be encouraged to enroll in an intensive malpractice prevention course sponsored by one or more hospitals, a county or state society, or the AMA during or immediately after completion of postgraduate training.

(4) The medical staffs, and governing bodies in our hospitals, should join forces and adopt a professional liability plan that would be beneficial to both parties. An example of this is in operation in the Hartford General Hospital in Connecticut. In cooperation with the Aetna Insurance Company they have an arrangement which may result in the reduction of premiums. It mandates the establishment of a risk management program by the hospital, and malpractice prevention courses for physicians on the active staff.

It is difficult to find objections to an intensive public education campaign. However, it must be carefully devised for it can be counter-productive if it is perceived by the public as being self-serving. Dramatic reminders to our patients may prove to be more effective. For example, every statement sent to patients should include a note indicating the percentage of the total fee directly related to the physician's professional liability premium. Some practitioners are already doing this and an honest statement of the facts would have an immediate impact on our patients. Millions of people would be reached very quickly and the public clamor that might result will be the best way to force legislators to pass statutory relief.

The medical profession needs an innovative plan and perhaps our readers will be stimulated by this article and come up with more practical solutions to this very serious problem. As everyone knows, the progressively increasing number of suits and the high awards escalate the cost of medical care, encourage excessive studies and testing, increase the discomfort of patients, encourage early retirement of physicians, and most important discourage badly needed young physicians from practicing in New York State. The recent increase in professional liability insurance premiums as requested by our own company and the amount to be added in 1982, if approved, will raise the premiums in high risk specialties above the 20 to 40 thousand dollar range. A newly licensed physician will find it practically impossible to start a solo practice in New York if he has to meet that premium while facing the additional cost of renting or buying office space, equipment, furniture, and hiring assistants. We must help ourselves. Unfortunately, depending on others has been unrewarding thus far and won't stop the exodus of young physicians from our State or prevent the early retirement of competent and experienced practitioners.

JULIUS E. STOLFI, M.D., F.A.C.P.
Associate Editor

Malpractice: the indicated public relations defense thrust

The malpractice plague is spreading but it is questionable as to whether the public has ever been properly informed of the causes of the current abuse. Possibly not!

After 35 years of practice, including ten years as Executive Director and one year as President of the Medical Society of the County of Queens, during which time I listened to the complaints of both the public and the physicians, it seems that the message has never reached the public in the right perspective. How might we correct this situation?

The malpractice scourge suddenly erupted when some hungry lawyers discovered they had a hidden bonanza in concocted suits against physicians—not only for actual malpractice (which would be entirely proper) but for vague, alleged conditions in which, despite a physician's honest attempts to ameliorate the patient's status, further improvement was physically impossible. The long-standing legal dictum is seemingly no longer valid, under which a physician treated a condition with such care as is usually used currently in practice in the surrounding professional area, would be faultless. Now the criteria for the pernicious suits revolve around the word "cure," if it is not completely successful, whether possible or not, it is claimed as prima facie evidence that it *must* be the physician's fault.

Then, a misled or mistakenly sympathetic jury gives its assent for a malpractice judgment. The result is obvious and foreseeable: as astronomical and irrational judgments are awarded, the insurance premiums rise, and, concurrently, physicians are forced into a paradoxical position, either they balloon their fees, quit practice (if feasible), or move to another state. Furthermore, young physicians just about to start practice are avoiding New York State. With the continued spread of the malpractice "disease," the fallacious and soaring dollar judgments, and the rise of the physicians' fees to meet the inflated overhead, the State is becoming denuded of physicians, *especially* in the poor and lower middle class areas which cannot support skyrocketing fees, whatever the cause. Either way, while medicine suffers, the public suffers more, especially since good physicians are abandoning practice. Richard Gladding, M.D., a former general practitioner for 25 years, who now works as a commodities trader at the Chicago Board of Trade, said he misses medicine but wouldn't return to practice because "25 years ago you could see a patient . . . and reassure him, but now with malpractice on everyone's mind, you can't reassure a patient because it would constitute a verbal contract (for a specific complete cure) and this takes all the joy out of practice.' "[1]

These circumstances, while well-known, have not been sufficiently documented for the public in understandable terms, except for a few physicians who have posted notices in their waiting rooms, apprising the patients of the catastrophe which *they*, not the physicians, face personally and continuously. If this had been done systematically in the offices of the approximately 35,000 physicians in the State, together with a news media blitz, some relief might have been achieved. Newspaper exposure of the malpractice scandal and the physicians' trips to Albany alone, fail to convey sufficiently *to the public* how "it has been taken."

Patients are understanding if they are aware of the situation. For example, this writer informed his patients of the malpractice scourge, and even though he subsequently more than doubled his fees, the *patients* informed him that he didn't charge enough. Patients are not stupid, and if apprised of the circumstances, they will realize that *they* are paying for the lawyers' charge and will learn who the real perpetrators are.

Now, even the New York State Department of Education[2] has issued a statement warning of the destructive effects of the malpractice scourge, and is calling for legislators and the Governor to take action. They suggest a "task force" to investigate the problem, but evidently they are not aware that the Governor *did* create a task force a few years ago, the McGill Commission, but then promptly made the politically-oriented decision to ignore the very worthy recommendations of his own comission. His decision, evidently, was not oriented toward the welfare of his constituents. He even vetoed a bill on "collateral sources" which had been passed by both Houses of the Legislature. This bill would have mandated the deduction of the amount already paid to the plaintiff by third-party insurance carriers from the settlement. The bill will be becoming up again soon, and the Governor's actions will bear watching. He has stated that he will sign it this time!

A few misguided patients (and some dollar-motivated ones) have swallowed whole the canard that "if the physicians didn't do something wrong, they wouldn't be sued," a myth cleverly created and disseminated by a certain sector of the trial lawyers in defense of their avarice. An attorney in California reported on the slow erosion of the malpractice reforms of the '70s by lawyers, and warned that there is a "lot of ingenuity in the bar."

In self-defense, the thrust of the medical community's attack *should* have been the *repeated* demonstration of the increased cost to *all* the public, and that the public, *not* the physician, is the real victim of the legalized extortion evident in the insidious malpractice suits against physicians.

The insufficient dissemination of the problem has not adequately aroused the public against what is happening to the physician. There often exists a feeling of "after all, physicians have lots of money, 'M.D.' means 'Million Dollars' . . . but if it can be irrefutable and repeatedly demonstrated that physicians who used to charge $10 and $15, now charge $40 and $50 or more for a simple brief visit because of the malpractice-suit threat, *then* the victimized public might be willing to join the medical profession in bringing pressure to bear against our "Governor."

Admittedly, in cases involving true malpractice, the patient *should* be fairly compensated. In our local medical societies there is a committee to advise insurance companies as to the validity of a claim which should be satisfied but, unfortunately, today all physicians are considered "fair game" by a group of the legal profession which repeatedly even embarrasses its more ethical legal colleagues as much as they abuse the medical profession. This group encourages suits almost to the point of barratry. Obviously, the patient did not come in well and was made sick; he came in sick and was helped as much as the circumstances permitted.

The problem arises when the patient is encouraged to sue, sometimes on a contingency basis in which it will cost the patient nothing if he loses, but in which he pays dearly if the attorney can swing a sympathetic jury to find for him. Often a lawyer deducts his "expenses" before the agreed split is made, thereby leaving the patient holding the short end.

This is where the Governor could have helped if he had heeded the advice of his own appointees of the McGill Commission; curiously, he was blind, or perhaps closed his eyes, to the evils under his nose.

A trial lawyer who was interviewed in a paramedical publication, very unashamedly said he'd nail every physician he could to the cross, even if the physician was "bare," had no insurance.[3] The public must be told this sordid story! It *cannot* be expected to be impressed by an appeal for sympathetic understanding, because it has been brainwashed with the concept that, "of course the physicians will squeal, but they're insured," and it appears that some juries seem to think that even if the physicians aren't guilty, "Why not give the poor patient a few dollars?" Again, these people fail to realize that in the long run, *they*, and not the physicians, are paying for the judgments.

The foregoing exposition should provide an indication of the direction that the thrust of the medical community's defense should take, it should be a repeated demonstration of the increased cost to the *public*, that *it*, not the physicians, is the real victim of this legalized extortion evident in the degenerate malpractice-suit epidemic, in which *two* lawyers benefit in each case, the plaintiff's and the defendant's. Unfortunately, the public has not been sufficiently apprised of the cost to itself because it has been misled into thinking that, "the physicians are insured, so why the fuss?" It's time the public was shown that *they* are the real victims who eventually pay for the ridiculously high judgments which cause the premiums to escalate to unsupportable heights. *The time is now!*

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Note of death of Judith Mona Lehotay, M.D.

The Journal does wish to call to the attention of our readers the recent early demise of Judith Mona Lehotay, M.D.; she was a very outstanding member of the Medical Society of the State of New York and the professional community, and as Chief Medical Examiner of Erie County rendered most excellent and conscientious service to all.

It is sad when such a promising career is interrupted so prematurely. All who knew her will miss her very much.

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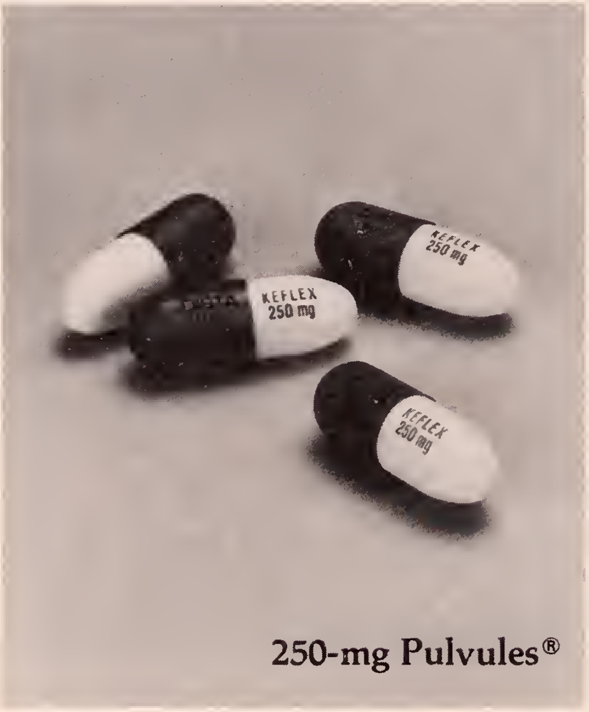

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Scientific Articles

Noninvasive Carotid Artery Testing

Role in management of patients with transient ischemic attacks

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The results of noninvasive carotid artery testing were correlated with angiography and clinical presentation on 120 carotid arteries in 60 patients. All of 24 high-grade stenoses and occlusions and 17 of 19 moderate stenoses were correctly identified with the test battery of pneumoculoplethysmography, supraorbital directional Doppler, and direct carotid flow study by Doppler pulse wave form analysis. Five of 5 obstructive plaques and 11 of 15 nonobstructive plaques were also correctly identified. Clinical correlation showed that 88 percent of high-grade stenoses or occlusions were symptomatic whereas only 35 percent of ulcerated plaques were symptomatic. Cerebrovascular symptoms also occurred ipsilateral to a normal carotid bifurcation on angiography 35 percent of the cases. The increased symptoms with high-grade lesions or occlusions were statistically significant ($p < 0.01$). Noninvasive carotid testing is effective in determining the extent of carotid artery disease and is useful in deciding the management of patients with transient ischemic attacks.

Transient ischemic attacks are often associated with atherosclerotic disease in the extracranial carotid artery circulation.[1] The optimal clinical management of patients with transient ischemic attacks remains controversial, particularly in patients with associated illnesses such as atherosclerotic cardiovascular disease. Whereas carotid endarterectomy has been shown to be of considerable value in preventing stroke associated with carotid artery lesions,[2] this procedure is not without risk.[3] Even diagnostic angiography has a small but significant proportion of complications, particularly in patients with vascular disease.[4] In addition, not all patients with transient ischemic attacks have lesions in the carotid artery,[5] and the majority of patients with transient ischemic attacks do not go on to have completed stroke.[6,7] Since medical therapy with platelet antiaggregant drugs has been shown to be of some value in preventing stroke in these individuals,[8,9] it becomes imperative to determine which patients require surgical intervention and which patients should be managed conservatively.

A number of noninvasive methods exist to determine the status of the carotid artery.[10] Some involve assessment of carotid hemodynamics and collateral flow, including ophthalmodynamometry,[11] oculoplethysmography,[12,13] and supraorbital Doppler.[14] Some offer direct measurements of flow kinetics in the carotid artery by Doppler ultrasonography and lumen diameter by ultrasound real time B-scan.[15–18] We report on our results employing a test battery of pneumo-oculoplethysmography,[12] supraorbital Doppler,[14] and direct carotid flow study by pulse wave form analysis[19] in assessing the status of carotid flow and hemodynamics as compared to angiography and its use in identifying clinically significant lesions.

Materials and methods

Patients. All patients who were tested with direct carotid flow study and underwent angiography were included in the study. In seven instances, ophthalmic artery pressure could not be measured because of local ophthalmic pathologic conditions. Results during the inception of the technique are included for completeness and to illustrate difficulties that can be avoided. Clinical evaluation was made at the time of the examination, although information from the referring physician was also included in the analysis.

Noninvasive techniques. Ophthalmic artery pressure was measured with a pneumo-oculoplethysmograph by the method of Gee et al.[12] and expressed as a percentage of brachial artery pressure.

Supraorbital Doppler was performed with a directional Doppler (Parks 806).[14] Superficial temporal and facial artery compression were performed to determine if augmentation or suppression of su-

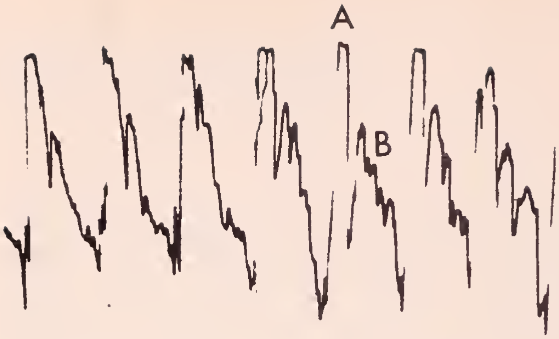

FIGURE 1. Normal pulse wave form with systolic peak (A) and gradual decline in diastolic flow (B).

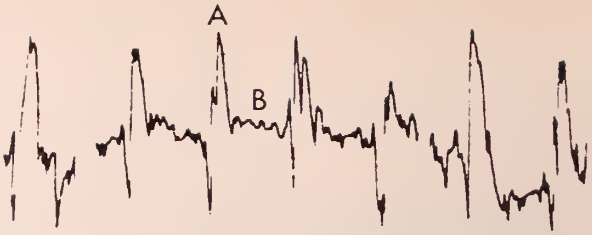

FIGURE 2. Reduction in flow, with attenuation of upsweep of systolic phase (A) and flattening of wave form in diastole (B).

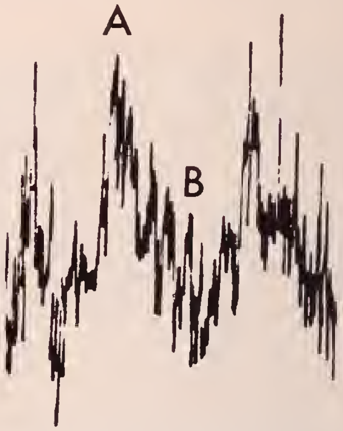

FIGURE 3. High-frequency turbulence from a high-grade carotid stenosis overlying relatively normal pulse wave form.

praorbital flow occurred. Augmentation is thought to reflect a patent carotid artery and suppression an obstructed carotid.

Direct carotid artery flow study was performed by the pulse wave form technique of Rutherford, Hiatt, and Kreutzer[19] with the same directional Doppler. The carotid artery was scanned along its entire course in the neck, and the bifurcation and internal and external branches were identified. Findings were classified as normal (Fig. 1), decreased in diastolic flow or in systolic and diastolic flow in the internal carotid only (Fig. 2), or decreased flow in both common and internal carotids. Some lesions were identified on the frequency pattern of turbulence of flow (Fig. 3).

Radiology. Aortic arch angiography with selective views of the carotid arteries was performed by femoral or axillary routes. Radiographs were interpreted independently from Doppler findings and the official reports of the radiologist were employed in the analysis. Lesions were classified as normal, nonobstructive plaque, obstructive plaque extending into the lumen, moderate-grade stenosis (50 to 75 percent), high-grade stenosis (greater than 75 percent), and complete occlusion.

Statistics. Statistical evaluation of the clinical data was performed by chi-square analysis.

Results

Comparison of Doppler analysis and angiography (Table I). Carotid Doppler pulse wave form analysis could accurately predict the findings of angiography of the cervical carotid artery in most instances (Table I). Eight of 9 occlusions and 15 of 16 high-grade stenoses were correctly identified. One occlusion and one high-grade stenosis were interpreted as normal because flow tracings were from a dilated external carotid with good runoff of flow from the common carotid.[20] However, a reduced ophthalmic pressure was found in both instances, so that the correct diagnosis was made noninvasively. This could possibly be avoided by applying the Doppler to the internal carotid in the tonsillar fossa.*

---

* W. T. Foley, M.D., personal communication, 1977.

TABLE I. Comparison of findings on Doppler pulse wave form analysis to findings on angiography.

Doppler	Angiography						
	Normal Bifurcation	Plaque Nonobstructive	Plaque Obstructive	Stenosis Moderate	Stenosis High	Occlusion	Aortic Arch Lesion
Normal	41	4	0	2	1	1	2
Turbulence							
Low-frequency	3	3	0	0	0	0	0
Moderate	1	2	1	0	1	0	0
High	4	0	0	3	5	2	0
Decreased Flow							
Internal							
Diastolic only	4	6	3	11	1	0	0
Diastolic and systolic	0	0	1	3	6	1	0
Common and internal	0	0	0	0	2	4	2

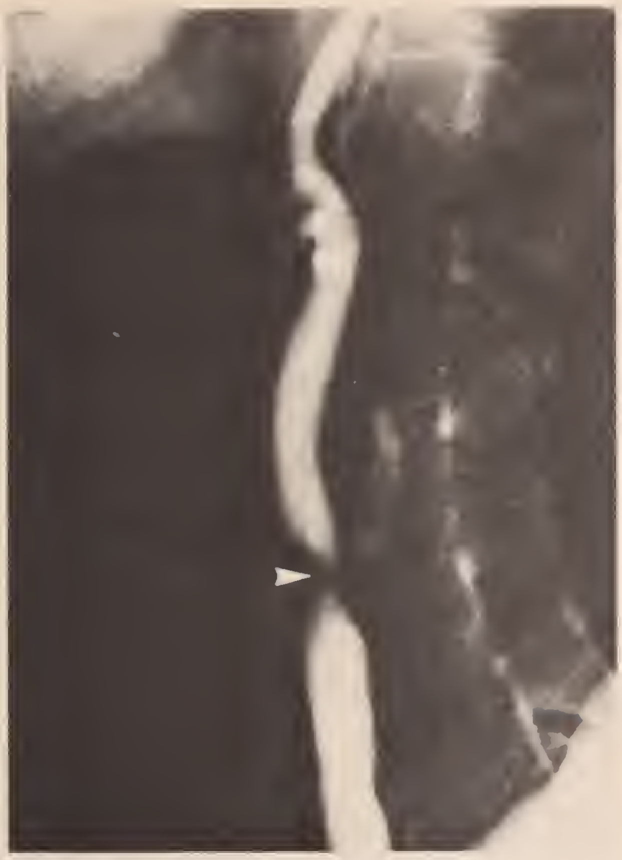

FIGURE 4. A high-grade stenosis identified by high-frequency turbulence but no reduction in flow, as in Figure 3.

In 7 of 25 high-grade stenoses, high-frequency turbulence was found rather than reduction in flow. Seventeen of 19 moderate stenoses were correctly identified, while in 2, no reduction in flow or local turbulence was detected in scanning (Fig. 4).

Five of five obstructive plaques were correctly identified. In one, decreased flow was found in systole as well as in diastole, indicating a more severe lesion. At surgery, a high-grade stenosis, which was not demonstrated on angiography, was found (Fig. 5).

Eleven of 15 nonobstructive plaques were correctly identified (Fig. 6). In six, there was a decrease in diastolic flow in the internal carotid and in five there was low- or moderate-frequency turbulence.

Forty-one normal carotid bifurcations were correctly identified. In 12 normal carotids, flow abnormalities were found. Four carotids examined early in the inception of the technique were originally thought to have high-frequency turbulence, but on later analysis were found to have high-velocity normal flow. In four, low- or moderate-frequency turbulence was found. This may have been due to small amounts of plaque or calcification not seen on angiography, although they are considered false positives in the analysis. In two, carotid artery kinking, which may have been sufficient to cause reduction in diastolic flow without affecting systolic flow or perfusion pressure, was present (Fig. 7.)[21,22] In the remaining two, decreased diastolic flow was determined in a normal carotid, probably because the Doppler probe was not measuring from the center of the lumen.

Two of four patients with stenosis at the origin of the common carotid from the aortic arch were correctly found to have normal flow through the carotid

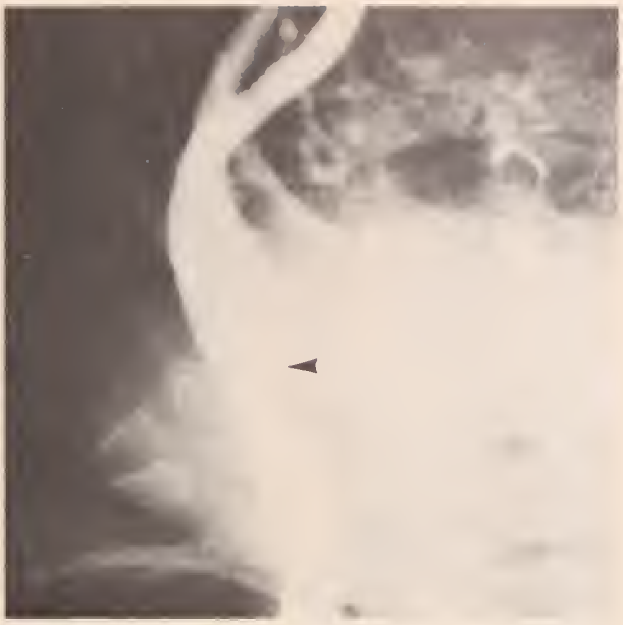

FIGURE 5. An obstructive plaque seen on angiography which caused reduction in flow as in Figure 2, and which was found to be a high-grade stenosis at surgery.

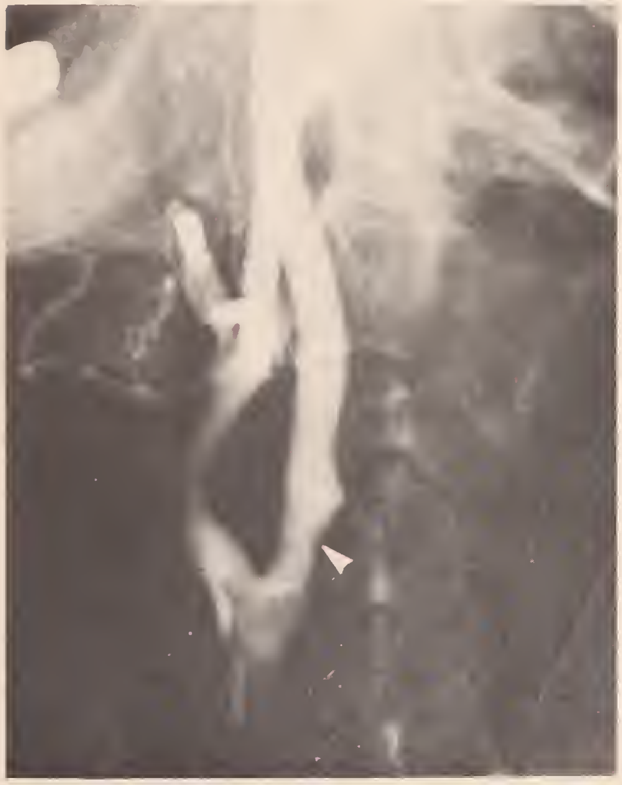

FIGURE 6. A nonobstructive plaque correctly identified by finding of low-frequency turbulence.

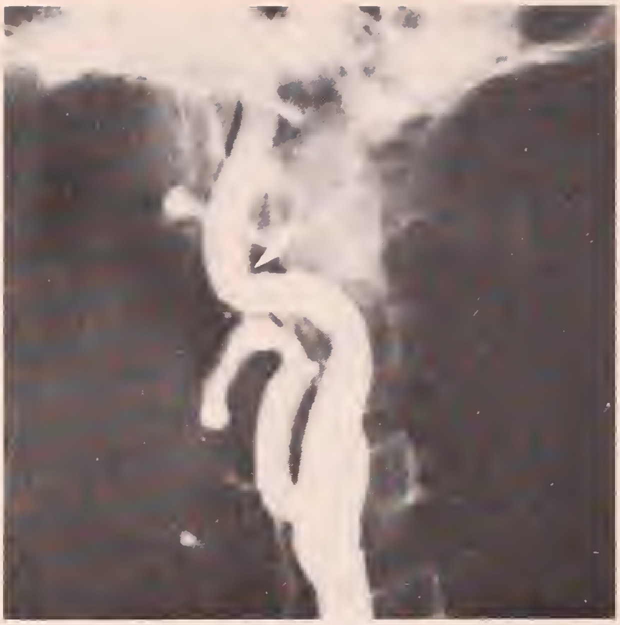

FIGURE 7. Kinking of cervical carotid artery distal to bifurcation from which reduction in diastolic flow was recorded.

bifurcation. Two with occlusion at the arch were identified correctly, with one having some flow from collaterals and one having no flow in the neck.

Findings of decreased flow or high-frequency turbulence were specific in identifying carotid lesions ranging from obstructive plaque to carotid occlusion, whereas moderate or low-frequency turbulence alone was usually associated with nonobstructive plaque but occasionally occurred in carotid arteries that appeared normal on angiography.

Tests for carotid hemodynamics (Table II). The tests of carotid circulation hemodynamics—oculoplethysmography and supraorbital Doppler—were employed mainly to assess collateral flow and to monitor the findings of the carotid flow study (Table II).

The normal range for ophthalmic artery pressure previously determined in this laboratory was 75 percent of brachial artery pressure, with a standard deviation of 5 percent.[23] Six patients with hemodynamically significant lesions on angiography had normal ophthalmic artery pressures. However, no patients with an ophthalmic artery pressure greater than 80 percent of brachial pressure had hemodynamically significant disease. Three patients with normal bifurcations on angiography had reduced ophthalmic pressure due to ophthalmic artery stenosis,[24] three due to lesions in the aortic arch, and one due to stenosis of the supraclinoid portion of the carotid. Oculoplethysmography was fairly specific but not very sensitive in predicting the findings at angiography. It was helpful in identifying one high-grade stenosis and one occlusion and was useful in assessing if lesions were hemodynamically significant.

Supraorbital Doppler showed augmentation on superficial temporal compression in 28 carotids with little or no disease, but also showed augmentation in two high-grade lesions and one occlusion. Retrograde flow with suppression was determined in 12 high-grade lesions and 3 occlusions, but also in 7 normal carotids and 2 aortic arch lesions. The majority of patients showed antegrade flow without augmentation, and when this occurred, the test could not distinguish between normal and abnormal carotid arteries. The test was most useful in assessing the collateral circulation of those patients identified as having high-grade lesions. Supraorbital Doppler and pneumoculoplethysmography were not sufficiently reliable without a method of direct visualization of the carotid, but they enhanced the accuracy and information obtained when used as a battery with the carotid flow study.

Clinical correlation with angiography (Table III). The need for noninvasive diagnostic techniques is demonstrated by the clinical correlation with angiography (Table III). Eight instances of hemispheric transient ischemic attacks, two instances of amaurosis fugax, three completed strokes, and four reversible ischemic deficits occurred, ipsilateral to a normal carotid artery on angiography. In addition, in four patients with "asymptomatic carotid bruits," no lesion was found in the carotid. On the other hand, two patients with high-grade stenoses

TABLE II. Comparison of findings of oculoplethysmography and supraorbital Doppler with angiography.*

	Angiography							
		Plaque		Stenosis				
Noninvasive Procedure	Normal Bifurcation	Nonobstructive	Obstructive	Moderate	High	Occlusion	Aortic Arch Lesion	Supraclinoid Lesion
Oculoplethysmography (percent)								
Below 70	3	0	1	6	15	5	3	1
70 to 80	31	9	1	11	2	3	1	0
Above 80	14	6	1	0	0	0	0	0
Supraorbital Doppler								
Retrograde	7	1	2	4	8	3	2	0
Antegrade	26	7	3	8	6	4	2	1
Augmentation	19	9	0	5	2	1	0	0

* Ophthalmic artery pressure is represented as the percentage of brachial systolic pressure and tabulated as below one standard deviation, normal range, and above one standard deviation.

TABLE III. Clinical findings on history and examination correlated with findings of angiography.

Clinical Findings*	Angiography							
		Plaque		Stenosis			Aortic Arch	Supraclinoid
	Normal	Nonobstructive	Obstructive	Moderate	High	Occlusion	Lesion	Lesion†
Asymptomatic	28	9	1	6	0	2	2	0
Bruit	4	1	2	4	2	0	1	0
Blackouts	2	0	0	1	0	0	0	0
Vertebrobasilar insufficiency	0	0	0	1	1	2	0	0
Hemispheric TIA**	8	2	0	5	8	1	0	0
Amaurosis fugax	2	2	1	1	3	1	0	0
Stroke	3	1	1	1	2	2	1	2
Reversible ischemic deficit	4	0	0	0	0	0	0	0

* Symptoms are classified by diagnosis of referring physician and consensus of authors.

† Normal bifurcation.

** TIA = transient ischemic attack.

and four with moderate stenoses had only a bruit, while three patients with bilateral disease had only dizziness, blackout, or vertebrobasilar insufficiency as a presenting symptom.[23] Twenty of 24 high-grade carotid stenoses or occlusions were symptomatic while only 7 of 19 plaques were symptomatic. Nineteen of 51 normal carotids had ipsilateral symptoms, the same percentage as for ulcerated plaques. This concurs with the the findings of Thiele et al.,[25] that symptoms of cerebrovascular disease correlate more with the presence of intracranial than extracranial vascular abnormalities on arteriography. The increased frequency of symptoms with high-grade stenosis was statistically significant compared with normal carotids and ulcerated plaques (probability less than 0.01).

Conclusions

The Doppler pulse wave form analysis appears to give a representation of pathologic conditions of the carotid artery in correlation with angiography equivalent to other methods of direct carotid Doppler studies.[15–17] This is in agreement with the findings of Rutherford, Hiatt, and Kreutzer.[19] The main disadvantage is that an actual image of the carotid is not obtained so that one has to infer the extent of carotid disease from the distortion of flow. However, its use in clinical management may thus be enhanced because it is actually measuring flow kinetics. In particular, alterations in diastolic flow caused by small lesions can be identified. In combination with oculoplethysmography and supraorbital Doppler, an assessment of carotid flow dynamics, carotid artery perfusion pressure, and availability of collateral circulation can be obtained without risk to the patient. Of course, angiography remains the definitive study and the noninvasive examination does not replace it.

Certain workers in the field would maintain that these tests are inadequate in identifying atherosclerotic plaque without stenosis and that angiography should be performed in all symptomatic patients.[26,27] This technique has been fairly successful in determining the presence of obstructive plaque extending into the lumen and of some value in locating nonobstructive plaque. The angiographic images obtained in patients with ulcerated plaque that have been reported to be associated with stroke usually are of the type we would classify as obstructive.[28]

It is still debatable whether or not every patient with carotid plaque formation actually requires carotid endarterectomy to prevent stroke. In two unselected series of patients coming to autopsy in which the carotid arteries were examined, many patients over age 65 had evidence of plaque formation, but stroke correlated primarily with ipsilateral high-grade carotid stenosis or occlusion.[29,30] Furthermore, our clinical correlation suggests that the risk of symptoms with plaque only is no greater than with a normal carotid on angiography, while the risk with high-grade stenosis is significantly increased. The mechanism of transient ischemic attack and stroke from ulcerated plaque is often attributed to platelet emboli[1] although cholesterol emboli can occur as well.[31] Platelet antiaggregant therapy appears to be of value in reducing the incidence of stroke in symptomatic patients,[8] presumably through reduction of emboli.

Although emboli still appear to play a major role in stroke associated with high-grade stenosis or occlusion,[32,33] thrombosis of the entire carotid involving the ostia of the intracerebral vessels also occurs.[33] This cause of stroke may be preventable if adequate collateral circulation exists. Thus, if collateralization is identified by supraorbital Doppler sufficient to maintain ophthalmic artery pressure, the risk of stroke in these patients may be lessened. This appears to hold true in patients suffering transient ischemic attacks ipsilateral to an occluded carotid artery who were being considered for superficial temporal-to-middle cerebral anastomosis surgery.[34]

Noninvasive carotid artery testing appears to be of most value in examining patients who are at high risk of complications from angiography and surgery due to associated heart disease. In these patients a knowledge of the physiology of carotid flow can aid in deciding whether or not to proceed further with invasive diagnosis and therapy. The risk of these procedures is greater in these patients, but if a high-grade lesion is identified with some certainty, then the benefit of carotid endarterectomy would appear to be greater than the risk. Also, if a patient has recently become symptomatic with transient ischemic attacks or amaurosis fugax and has a high-grade lesion in the carotid, the risk of stroke may be imminent whereas with less severe disease, a trial of antiaggregant therapy could be administered.

Noninvasive carotid testing is also useful in patients with complaints not specific to the carotid circulation in whom carotid disease should be ruled out. These include patients with dizziness and vertebrobasilar insufficiency who may not only benefit symptomatically from the improved hemodynamics with carotid endarterectomy, but may be at risk for cerebral hemispheric stroke as well. It is useful to evaluate patients with asymptomatic bruit by these methods because it can be determined if the bruit is in fact due to a lesion in the carotid artery or whether it is being transmitted from elsewhere. The extent of compromise of flow in these patients can be assessed to aid in determining appropriate management. Four "asymptomatic bruits" were not from the carotid at all. Occasionally, a patient is found to have a bruit, and silent high-grade stenosis is found on the opposite side.

Frequently the clinician is faced with an apparently insoluble dilemma when attempting to determine the best course in managing patients with transient ischemic attacks. The assessment of carotid circulation and hemodynamics obtained by noninvasive means can aid in making such decisions based on information concerning the extent of disease at the carotid bifurcation, carotid artery perfusion pressure, and status of collateral circulation.

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Primary Renal Transplant Wound Infections*

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Primary wound infections occurred in 21.7 percent of 175 renal transplant patients. Graft survival was profoundly reduced in patients with deep wound infections, but not compromised by superficial wound infections. Some wounds were associated with hematomas, allograft necrosis, and urinary leaks. Most staphylococcal infections probably arose from organisms implanted at operation, and many nonstaphylococcal infections, even in the absence of a urinary leak, were associated with urinary infections with the same organism. A single dose of antibiotics prevented wound infections in all patients except those with Penrose tube wound drains, which probably act as a postoperative source of wound contamination. Coincidentally the incidence of urinary tract infections was also dramatically reduced.

"Clean surgery" carries a risk of wound infection of about 1.8 percent,[1] but the risk of wound infection with kidney transplantation is higher. In centers that do not use antibiotic irrigation of the wound or prophylactic systemic antibiotics, incidences of 20, 31.5, and 38 percent have been reported.[2-4] Impairment of host defenses by azotemia and immunosuppression are probably responsible. We have reviewed the incidence of primary wound infections (infections in wounds that have not been re-explored) in our transplant population when antibiotics were not used, and analyzed their associations, bacterial flora, and contributions to morbidity and graft failure. Perioperative prophylactic antibiotic therapy was introduced in mid-1979, and the altered pattern of wound and urinary infections is described.

Materials and methods

From 1967 to mid-1979, 177 renal transplants were performed at Strong Memorial Hospital without systemic or local antibiotics. Adequate information was available on 175 of these transplants. Twenty-one recipients were 18 years of age or less, and 154 were more than 18 years old. Fifty-four kidneys were from LRD (live-related donors) and 121 were from cadavers. Four surgeons did the transplants. In 80 transplants, Penrose drains were placed in the wound and withdrawn at varying intervals, and in 95 transplants closed hemovac drainage (discontinued by day two) or no wound drainage was used. The bladder was decompressed either by suprapubic cystostomy or by urethral catheter until mid-1976, and only by urethral catheter drainage after that time. Sixty-one patients had suprapubic cystostomies and 114 had urethral catheters, usually retained for five to seven days. Increasing numbers of high-risk patients had kidney transplants during that decade, including elderly uremic patients, subjects with juvenile onset diabetes, and people with severe multisystem disease. The early immunosuppressive regimen was variable, but was gradually standardized to include prednisone 1 mg. per kilogram per day for adults and azathioprine 3 mg. per kilogram per day in the early post-transplant period. A 10-day course of intramuscular antilymphocyte globulin was given to recipients of cadaver kidneys only until 1972, and its use was discontinued in subsequent years. Acute rejection was treated by increased oral prednisone or a three-day course of intravenous methylprednisolone at 15 mg. per kilogram per day. In 1976, the policy of generally treating only two early acute rejections was adopted and there was a moderate reduction in azathioprine dosage in patients with renal failure.

In mid-1979 prophylactic antibiotic therapy was introduced, and 36 patients had kidney transplants under this protocol to the end of 1980. The regimen, a modification of that of Tilney et al.,[2] consisted of single intravenous doses of tobramycin sulfate 1.5 mg. per kilogram and methicillin sodium 2 Gm. preoperatively, and ampicillin 2 Gm. intraoperatively. Clindamycin 400 to 600 mg. was substituted for methicillin and ampicillin in penicillin-allergic patients. Two of these patients were children and 34 were adults; 8 kidneys were from live related donors and 28 were from cadavers. Urethral catheter drainage was used for all, generally for only two to three days, although some were retained longer. Twenty-five patients had short-term hemovac drainage or no wound drains, and 11 had Penrose wound drains. High-risk patients were again in-

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cluded in this group, and immunosuppression was similiar to that used from 1975 to mid-1979.

Results

Patients transplanted without antibiotic coverage. In patients transplanted without antibiotic coverage, there were 38 wound infections in 175 transplants, an incidence of 21.7 percent (Table I). The infection rate was higher from 1967 to 1970, lower from 1971 to 1974, and slightly worse thereafter. The differences, however, are not significant.

Wound infections were more common in recipients of cadavers than in recipients of LRD kidneys, and more common in adults than in children (Table II). Infections seemed to occur more frequently in patients with Penrose drains and suprapubic cystostomies, but the differences were not significant. Wound infection rates ranged from 18 to 27.4 percent among individual surgeons.

Most wound infections were discovered within 3 weeks of transplant, but 5 of 38 were discovered at 25, 32, 35, and 42 days, and at 5 months after transplant. Many infections were clinically obvious, but some developed without any symptoms or signs and were unexpected discoveries at open biopsy (four cases), allograft nephrectomy (three cases), and at autopsy at five months (one case).

Sixteen of the 38 wound infections were superficial and 22 extended below the deep fascia. Local conditions associated with wound infections include hematomas, allograft necrosis, a lymphocele, urinary leaks, and urinary tract infections (Table III).

The organisms cultured from the 38 wounds are as follows:

Single organism	
Staphylococcus aureus	15
Staphylococcus epidermidis	5
Escherichia coli	4
Klebsiella pneumoniae	1
Proteus rettgeri	1
Enterobacter species	1
Citrobacter species	1
Beta hemolytic streptococcus	1
Enterococcus	1
Yeast	1
Total	31
Mixed flora	
Staphylococcus aureus and *Pseudomonas aeruginosa*	1
Staphylococcus aureus and Enterobacter species	1
Staphylococcus epidermidis and Enterococcus	1
Staphylococcus epidermidis, Enterococcus, and Diphtheroids	1
Enterococcus and *Bacteroides fragilis*	1
Enterococcus, Proteus species, and *Escherichia coli*	1
Proteus species and *Klebsiella pneumoniae*	1
Total	7

TABLE I. Incidence of primary wound infections; no antibiotics

Interval	Number of Patients	Number of Infections	Percent
1967 through 1970	19	7	36.8
1971 through 1974	60	10	16.7
1975 through June 1979	96	21	21.9
Totals	175	38	21.7

TABLE II. Primary transplant wound infections patient groups

Data	Wound Infections/ All Transplants	Incidence of Wound Infections (Percent)	
Cadaver recipients	30/121	24.8	p <0.02
LRD recipients	8/54	14.8	
Adults (>18 years)	37/154	24.0	NS
Children (≤18 years)*	1/21	4.8	
Penrose drains	21/80	26.3	NS
No Penrose drains	17/95	17.9	
Suprapubic cystostomy	11/61	18.0	NS
No suprapubic cystostomy	27/114	23.7	

* 13 of 21 were LRD recipients.

TABLE III. Nature of 38 primary transplant wound infections

Conditions	Number of Infections
Superficial infection	16
Deep infection	22
Associated with	
hematoma	1
lymphocele	1
allograft cortical necrosis	4
urinary leak	
i) from bladder	5*
ii) from ureter or calyces	4
urinary tract infection	
i) same organism as wound	19
ii) different organism than wound	9

* 4 from defects created by suprapubic cystostomy.

A single organism was cultured from 31 and mixed organisms from 7 wounds. Coagulase-positive staphylococci were the organisms most frequently isolated in pure culture (15 cases). Wounds growing staphylococci comprised 20 of 38 cases (52.6 percent). Gram-negative organisms were present in pure growth in nine wounds and as part of mixed flora in five wounds. Enterococci were present either in a pure or mixed growth in four wounds.

The effect of deep and superficial wound infections on graft outcome is shown in Table IV. Allograft survival at six months was drastically reduced in patients with deep wound infections (probability less than 0.001), both in recipients of cadaveric and LRD kidneys. Superficial wound infections did not adversely affect graft survival.

TABLE IV. Primary transplant wound infections and allograft survival

Types of Wound Infections	Allograft Survival at 6 Months	(Percent)
Deep		
cadaver recipients	4/16	25.0
LRD-recipients	2/6	33.3
all recipients	6/22	27.3
Superficial		
cadaver recipients	12/14	85.7
LRD-recipients	2/2	100.0
all recipients	14/16	87.5
No wound infections		
cadaver recipients	60/91	65.9
LRD-recipients	40/46	87.0
all recipients	100/137	73.0

Deep vs superficial infections $p < 0.001$.
Deep vs no infection $p < 0.001$.
Superficial vs no infection NS.

TABLE V. Influence of prophylactic antibiotics on the incidence of primary wound infections

Method	Number of Patients	Number of Transplants	Incidence (Percent)	
No Penrose drains				
No antibiotics	95	17	17.9	$p < 0.05$
Antibiotics	25	0	0.0	
Penrose drains				
No antibiotics	80	21	26.3	NS
Antibiotics	11	5	45.5	

Other morbid events associated with wound infections included rupture of the arterial anastomosis in 3 patients, need for urgent allograft nephrectomy in 13 patients, and 2 deaths, 1 due to sepsis from *Klebsiella* subsequently discovered in a perinephric infection at autopsy. These complications occurred only in patients with deep wound infections.

Patients transplanted with antibiotic coverage. Thirty-six transplants were performed with antibiotic coverage (Table V). There were no wound infections in 25 patients who had no drains or short-term hemovac drainage. Five wound infections occurred in 11 patients with Penrose drainage: 3 infections were deep and 2 superficial and 1 produced a bacteremia. Two grafts were lost before 6 months and 3 are still functioning at intervals of 6 to 12 months. Bacteria in wound infections associated with Penrose drains, using prophylactic antibiotics, were as follows: enterococcus, two patients; enterococcus and *Bacteroides fragilis*, one patient; enterococcus, *Bacteroides fragilis* and *Escherichia coli*, one patient; and *Staphylococcus epidermidis* and *Peptostreptococcus*, one patient. The sequence of events was similar in all cases: routine daily cultures of Penrose drain sites were negative at first, became positive at a minimum of five days post-transplant; and wound infections with the same organism subsequently became apparent.

Antibiotic prophylaxis and emphasis on early (48 to 72 hour) removal of the Foley catheter significantly reduced the incidence of post-transplant urinary tract infections: of 175 patients who received no antibiotics, 144 had urinary tract infections (82.3 percent); and of 36 patients who received single pulse antibiotics and were subject to earlier catheter removal, 7 patients (19.4 percent) had urinary tract infections, (probability less than 0.001).

Comment

The incidence of primary wound infections in this transplant population was very high, but is comparable to that in other series where prophylactic antibiotics were not used.[2–4] They occurred more often in recipients of cadaveric than in live-related donor kidneys and more often in adults than in children. Kyriakides, Simmons, and Najarian[5] have discussed possible reasons why recipients of cadaver kidneys and those with post-transplant acute tubular necrosis have more wound infections than other transplant patients. The lower incidence in children in our series could be due to their better defenses and healing capacities, or to the fact that 13 of 21 patients in this group, or 61.9 percent, received live related donor kidneys.

Superficial wound infections sometimes prolonged hospitalization and exposed the patient to extra procedures and drugs, but they did not compromise graft or patient survival. Deep infections, however, were associated with disastrously reduced allograft survival and many morbid events.

Bacteria may be implanted into wounds at operation, be carried in with the allograft, or spread into wounds from infected urine, drain sites, or the bloodstream. There is evidence for most of these methods of spread in our transplant population.

Intraoperative contamination is probably a very common source of wound infection. According to Burke[6] contamination of wounds with bacteria at operation is inevitable, even with a clean procedure and meticulous technique, and the vast majority of implanted organisms (92 percent) are coagulase-positive staphylococci. These do not usually lead to infection in patients with normal defenses, but may do so in transplant patients compromised by azotemia, immunosuppression, foreign body reaction and interruption of the lymphatics. *Staphylococci* were the most commonly isolated organisms in our series, and Murphy et al.[3] observed the same pattern in his transplant population. Burke[6] has demonstrated that proliferation of implanted bacteria is maximally suppressed by antibiotics present in tissue at the time of implantation or given within three hours,[7] and regimens of antibiotic irrigation of wounds or perioperative antibiotic therapy are designed to eradicate such organisms. Table VI shows that these regimens have virtually eliminated staphylococcal and nonstaphylococcal wound infections in our experience and in that of other centers.

Contamination with infected urine could lead to wound infections. This probably happened at the

TABLE VI. Incidence of wound infections with prophylactic antibiotics

Procedure	Number of Transplants	Incidence (percent) Staphylococcal	Nonstaphylococcal	Total
Antibiotic wound irrigation[10]	96	0	0	0
Antibiotic wound irrigation plus systemic antibiotics[5]	439	1.1	5	6.1
Single perioperative dose systemic antibiotics[2]	87	...	...	1.1*
Single dose perioperative systemic antibiotics. No Penrose drains	19	0	0	0

* Organism not specified.

time of transplant in two of our patients. Both had sterile urine prior to transplant but had infected urine on the first postoperative day, one with *Pseudomonas aeruginosa* and one with *Proteus rettgeri*, and developed wound infections with the same organism. Urinary leaks are an obvious source of wound contamination, and all technical measures should be taken to avoid them.[8] Four of our superficial wound infections arose from suprapubic cystostomy sites with antecedent or subsequent urinary leaks, which is one reason this practice was discontinued. However, even in patients without obvious urinary leaks who had wound and urinary infections, the organisms in the wound and urine were often identical. This association pertained only to nonstaphylococcal organisms; 6 of 10 such patients with wound infections due to nonstaphylococcal bacteria had urinary infections with the same organism, while only 2 of 19 such patients (10.5 percent) who had wound infections with staphylococci, pure or mixed, had urinary infections with the same organism. Kryiakides, Simmons, and Najarian[5] made a similiar observation, reporting identical flora in wound and urine in 7 of 27 patients with wound infections (63 percent), and they could only show the relationship with nonstaphylococcal organisms. Thus, the urine may be the source of wound contamination in many nonstaphylococcal infections even when no leak can be demonstrated. When the urinary infection is acquired after transplant, this might imply migration of bacteria across the uretero-vesical anastomosis or site of bladder closure. If so, measures to prevent transmission of or post-transplant acquisition of urinary infection could reduce wound infections due to nonstaphylococcal bacteria. Indeed, with antibiotic prophylaxis and emphasis on early removal of the Foley catheter, the incidence of urinary infections in our transplant population has fallen dramatically. This allows at least two interpretations: that urinary infections arise after several days by colonization of the Foley catheter and earlier removal of the catheter prevents their development and subsequent wound contamination, or that urinary infections develop from small (initially undetectable) numbers of organisms introduced by catheterization and that this inoculum (and subsequent urinary and wound infection) is eliminated by the broad-spectrum perioperative antibiotic pulse.

The spread of bacteria along drains deserves consideration. Transplant patients with wound drains have a higher incidence of wound infections than those without,[9] and Schweizer, Kountz and Belzer[10] feel that Penrose drains actually may act as a conduit for infection. Wound infections were more common in our patients with Penrose drains than in those without Penrose drains when antibiotics were not used, although the difference was not significant. With antibiotic prophylaxis the difference has been striking, with wound infections in 45.5 percent of patients with Penrose drains as opposed to 0 percent in those patients without Penrose drains. Organisms colonized the drain sites several days after transplant when antibiosis was no longer in effect and then apparently spread retrograde into the wound. There was no preponderance of staphylococci in these wounds, mixed bacterial flora were usually cultured from them, and infections associated with Penrose drains were the only ones in this entire series from which anaerobic bacteria were cultured. These drains probably should not be used or should be removed very soon after transplant.

Conclusion

Wound infections commonly complicate renal transplantation when antibiotics are not used and are an important source of morbidity and graft loss. Many infections probably arise from implantation, some from urinary contamination even where there is no urinary leak, and some from drains. They can be prevented almost totally by antibiotic prophylaxis, reduction of urinary tract infections, modification of techniques, and elimination of Penrose drains. The incidence of urinary tract infections is also decreased by the use of prophylactic antibiotics and earlier removal of urethral catheters, a fact which should be reflected in less expense, inconvenience, medication, and perhaps even less graft loss from this source.[11]

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When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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Cystometric Changes in Cirrhosis

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Cystometric studies were performed in 16 alcoholic cirrhotic patients without evidence of urinary tract infection or obstruction. Thirteen patients had abnormal bladder capacity, seven (7) showed UC (uninhibited contractions), and five (5) had decreased MVP (maximal vesical pressure). Nine of the 12 (12) patients tested had impaired peripheral nerve conduction, four (4) of whom had UC. Six patients with orthostatic hypotension had decreased bladder capacity, as did four (4) patients with frequency, urgency, and nocturia. No correlation was found between the cystometric parameters and severity of ascites, levels of blood ammonia, serum bilirubin, or enzymes. Following clinical improvements, five (5) patients had repeat cystometry which revealed improvement of bladder capacity in three (3), disappearance of UC in three (3), and normalization of MVP in two (2) patients. These studies show that autonomic bladder dysfunction occurs with unsuspected frequency in alcoholic cirrhosis and that it may be reversible.

Neuropsychiatric and/or autonomic abnormalities are not uncommon in cirrhosis, whatever its cause. These manifestations have received generous appraisal by many investigators,[1] but the abnormalities of urinary bladder function due to liver disease have to our knowledge not been studied. We were prompted to embark on such an investigation when two patients with cirrhosis were admitted for urinary retention. Neither patient had outlet obstruction or urinary tract infection. The present study reports the results of cystometric studies in 16 patients who were admitted with advanced liver cirrhosis.

Materials and methods

Sixteen consecutive male patients with alcoholic cirrhosis between the ages of 39 and 68 were taken into the study. None had diabetes mellitus or any primary neurologic disease that could result in bladder dysfunction and none were taking drugs known to interfere with bladder function. Urinary tract infection, obstruction, and urethral malfunction were ruled out by history, physical examination of the prostate and bladder neck, urine cultures, intravenous pyelogram, voiding cystourethrogram, and cystoscopy. The presence of jaundice, ascites, and asterixis were noted. The severity of liver disease varied among these patients, yet all were coherent and competent to sign informed consent.

Serum bilirubin, alkaline phosphatase, SGOT (serum glutamic oxaloacetic transaminase), lactic dehydrogenase, and prothrombin time were measured using standard procedures. Serum ammonia levels were estimated by the colorimetric method.[††] Each patient had a liver scan with 99^{m} technetium. Cystometry was performed with the Lewis Water Cystometer.[2] Bladder capacity, MVP (maximal vesical pressure), and the presence or absence of UC (uninhibited bladder contractions) were recorded. Cystometric studies were repeated in five patients after two to three weeks. Motor and sensory NCV (nerve conduction velocities) were measured in 12 of the 16 patients to determine if these could be correlated with the results obtained by cystometry.

Results

Ascites was massive in nine patients, moderate in five, and absent in two. Seven patients had asterixis, and six of 13 patients tested who were normovolemic had an orthostatic drop of systolic pressure of more than 15 mm. Hg without accompanying tachycardia. These patients also had abnormal responses to Valsalva's maneuver. Liver function tests performed before cystometry are listed in Table I.

Thirteen of the 16 patients showed one or more abnormality by cystometry (Table II). Twelve showed a decrease and one an increase in bladder capacity (normal: 350–500 ml.). Four of the 16 patients who had experienced urinary frequency, urgency, and/or nocturia had decreased bladder capacity. Seven patients showed uninhibited contractions (Fig. 1A). (There are no UC in a normal cystometrogram.) Five patients showed a lowered MVP (normal: 45–110 cm. of water).

No correlation was found between the parameters of bladder function (bladder capacity, UC, and MVP) and degree of ascites, and levels of serum bilirubin, serum enzymes, and serum ammonia (Tables I and II). Of the five patients who underwent repeat cystometry, bladder capacity improved in three, UC

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TABLE I. Results of liver function tests

Patient Number and Age	Total Serum Proteins 6–8 Gm./dl.	Serum Albumin 3.5–5 Gm./dl.	Serum Bilirubin 0.1–1.0 mg./dl.	SGOT 7–40 mU/ml.	Alk. Phos. 30–85 mU/ml.	Serum Ammonia 18–48 μg./dl.	Serum Vit. B_{12} 150–800 μμg./ml.	Serum Glucose 65–100 mg./dl.	PT* 13 sec.
1. 63	6.7	2.6	6.0	48	159	43.0	744	80	22
2. 63	5.7	2.8	17.5	16	580	65.8	NP†	112	15
3. 61	7.5	3.1	17.5	24	330	71.0	NP	115	23
4. 58	6.1	1.9	3.7	62	185	74.1	1128	91	24
5. 46	6.8	2.9	1.7	48	167	80.5	NP	83	19
6. 68	7.5	3.1	2.8	113	112	38.5	NP	100	15
7. 59	7.5	3.7	0.7	27	104	25.3	NP	105	15
8. 49	6.9	3.3	4.6	90	311	18.5	270	85	13
9. 43	7.5	3.0	17.5	79	297	56.6	NP	75	18
10. 39	6.0	3.4	3.3	145	248	78.6	696	107	17
11. 59	5.5	2.3	1.1	101	110	80.1	NP	62	16
12. 56	7.0	2.5	1.0	24	182	29.2	NP	71	15
13. 50	7.1	3.0	14.5	69	395	93.4	1376	101	17
14. 56	7.2	2.9	3.6	40	194	71.4	NP	62	20
15. 45	5.6	3.0	4.3	32	194	134.0	725	60	21
16. 53	7.7	2.2	16.0	182	201	68.0	NP	90	21

* PT = prothrombin time.
† NP = not performed.

TABLE II. Results of cystometry and nerve conduction velocities

Patient Number and Age	Cystometry								Nerve Conduction Velocities		Asterixis	Ascites
	Initial				Follow-up							
	RV in ml.	UC	BC in ml.	MVP in cm. H_2O	RV in ml.	UC	BC in ml.	MVP in cm. H_2O	Motor	Sensory		
1. 63	0	P	150	100	NP	NP	NP	NP	NP	NP	P	+++
2. 63	0	–	80	70	NP	NP	NP	NP	NP	NP	P	++
3. 61	0	–	400	65	NP	NP	NP	NP	DR	DR	P	+
4. 58	10	P	220	50	NP	NP	NP	NP	NP	NP	P	+++
5. 46	0	–	520	30	NP	NP	NP	NP	DR	N	–	++
6. 68	0	P	200	35	0	–	450	45	N	DR	–	++
7. 59	0	–	380	40	NP	NP	NP	NP	N	N	–	+++
8. 49	0	–	200	50	0	–	300	50	N	N	–	–
9. 43	10	–	340	25	0	–	340	40	N	DR	–	–
10. 39	0	P	280	70	0	–	240	55	DR	DR	P	++
11. 59	0	–	400	75	NP	NP	NP	NP	N	DR	–	+++
12. 56	0	–	260	50	NP	NP	NP	NP	DR	DR	–	+++
13. 50	0	P	80	30	NP	NP	NP	NP	DR	DR	P	+++
14. 56	0	–	260	30	NP	NP	NP	NP	N	N	–	+++
15. 45	0	P	100	120	0	–	140	105	N	DR	P	+++
16. 53	0	P	300	55	NP	NP	NP	NP	NP	NP	–	+++

Abbreviations: RV = residual urine volume, UC = uninhibited contractions, BC = bladder capacity (normal 350–500 ml.), MVP = maximal vesical pressure (normal 40–110 cm. H_2O). + = mild, ++ = moderate, +++ = massive; P = present, – = absent, N = normal, DR = decreased response, NP = test not performed.

disappeared in three, and the MVP became normal in two patients (Figs. 1 and 2).

Of the 12 patients who had motor and sensory NCV measured, 9 had either abnormally low motor or sensory conduction velocities or both. There were eight patients with abnormal sensory NCV of which four had UC on cystometry. The four patients with normal sensory NCV had no UC. No correlation was found between abnormal motor NCV and bladder function. All the six patients who showed evidence of sympathetic vasomotor deficit had decreased bladder capacity.

Comment

Diverse neuropsychiatric disturbances in patients with liver cirrhosis constitute one of the major extrahepatic manifestations of the disease.[1] The psychiatric disturbances take the form of apathy, emotional lability, hypomania, dementia, or paranoid schizophrenia.[3] Involvement of cranial nerve, spinal cord, and peripheral nerve may be evident during examination of a cirrhotic patient.[4] Different grades of hepatic encephalopathy with characteristic electroencephalographic changes are well described.[5] Abnormalities of vasomotor response are seen and hypotension without compensatory tachycardia may occur on assuming erect posture.[6] The response to Valsalva's maneuver may be abnormal.

In the present report, autonomic disturbances of bladder function were found in 13 of 16 cirrhotic patients studied by cystometry. In nearly half the

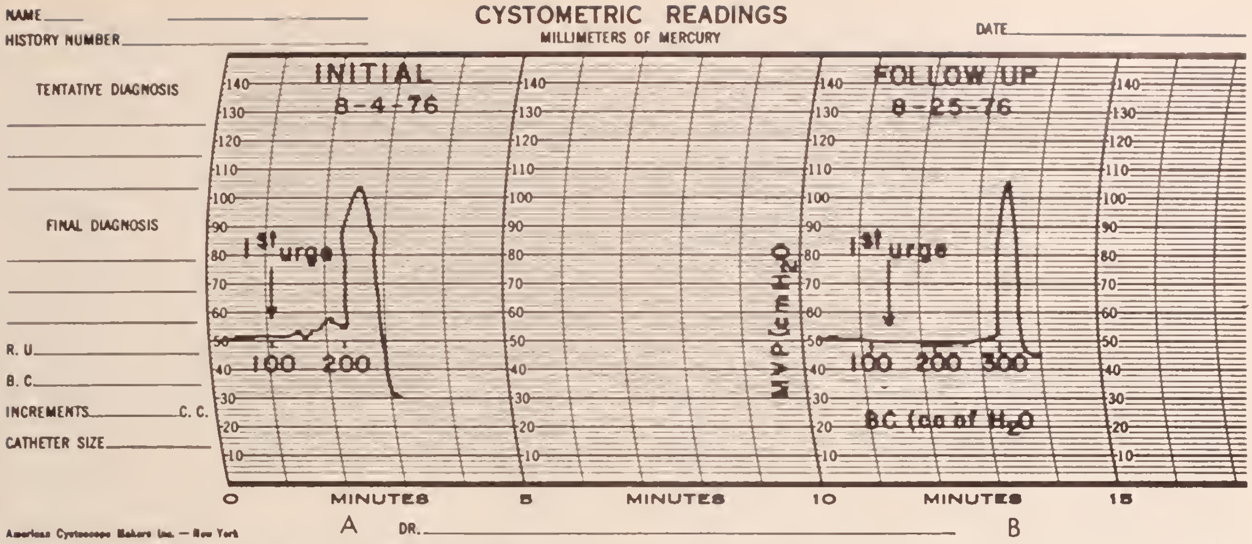

FIGURE 1. (A) Cystometrogram of patient 4 showing early occurrence of first urge to void (Normal: 150–200 ml.), presence of UC, and markedly decreased bladder capacity (N: 350–500 ml.), characteristic features of uninhibited neurogenic bladder. (B) Follow-up cystometrogram of patient 4 showing reversal to normal.

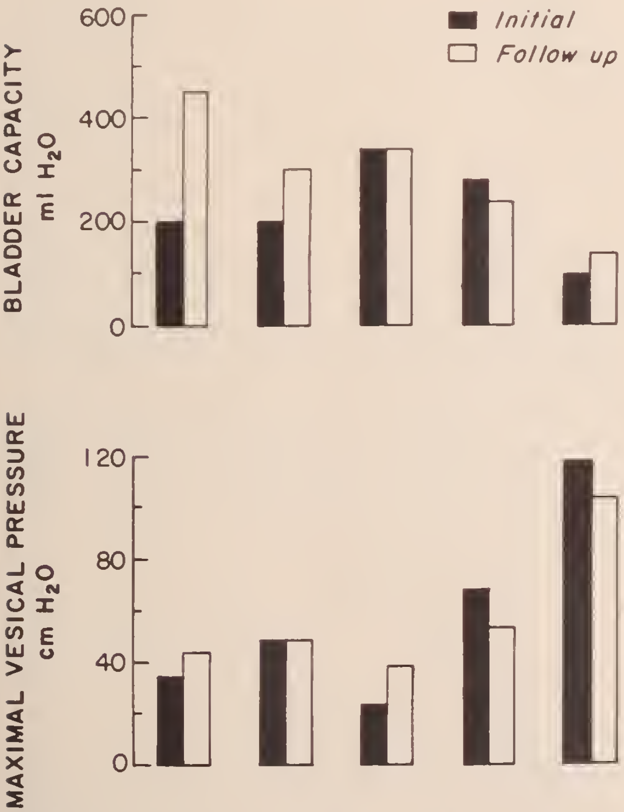

FIGURE 2. Initial and follow-up bladder capacity (N: 350–500 ml.) and MVP (40–110 cm. H_2O) in five patients, left to right, numbers 6, 8, 9, 10, and 15.

patients, an incomplete upper motor neuron lesion above S2, 3, and 4 (second through fourth sacral segments) of the spinal cord resulted in uninhibited neurogenic bladder.[7,8] One patient had a lower motor neuron lesion involving S2, 3, and 4 segments of the cord with a flaccid type of neurogenic bladder. There were no patients with complete upper motor neuron lesions which would cause a spastic neurogenic bladder.

Six patients displayed sympathetic vasomotor deficiency as well as parasympathetic detrusor muscle disturbances in the form of uninhibited neurogenic bladder. Also, 9 of 12 patients tested showed evidence of peripheral neuropathy. Thus, multiple neurologic deficits can occur in the same individual with liver cirrhosis. In some patients the UC disappeared, bladder capacity improved, and MVP became normal following clinical improvement. The disturbances of bladder function may be reversible in those less severely affected.

The morphologic basis for the varied neuropsychiatric manifestations of liver cirrhosis may take several forms, the most characteristic of which have been described by Victor, Adams, and Cole,[9] and Schenker, Breen, and Hoyumpa.[10] The gross changes in the brain consist of diffuse but patchy corticolaminar and pseudolaminar necrosis as well as polymicrocavitation at the corticomedullary junction which is most marked in the parietal and occipital lobes. The structural and physiologic changes may alter the central connections of the bladder with synaptic connections of micturition in the frontal cortex, the mesencephalic reticular formation, or its peripheral autonomic innervation by way of the pelvic parasympathetic nerves and the hypogastric sympathetic nerves.[11] The extent to which bladder function is compromised will depend on the location, severity, and duration of the neurologic lesion.

In summary, autonomic urinary bladder dysfunction occurs with unsuspected frequency in patients with liver cirrhosis. It should be considered once infection and obstruction have been excluded in the alcoholic cirrhotic patient with urinary symptoms.

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Physicians first to learn of chemical contamination

It is the physician in practice who first becomes aware of areawide chemical contamination that causes illness. The physician learns of the chemical poisoning as he seeks to determine what is causing his patients' illness.

An early lead to possible chemical contamination as the cause of illness often comes from the sufferers themselves. The physician must take seriously the complaint of the worker who believes something in the workplace is making him ill.

These are conclusions of the report of a workshop concerning areawide chemical contamination held at the National Academy of Sciences in Washington, D.C. The full report is now on the press. A summary appears in the April 17 Journal of the American Medical Association.

The report summarizes nine case histories of instances of chemical contamination, ranging from the Love Canal episode to Minamata disease in Japan to PBB poisoning in Michigan.

The cases illustrate the mounting problems owing to chemical contamination that often extends beyond the workplace into the community, says Robert W. Miller of the National Cancer Institute, Bethesda, Md.

In the public's eye, chemical contaminants are associated with causing cancer and birth defects, the report points out. But the chemicals also are associated with severe nervous system disturbances and disabilities of the reproductive system immediately after exposure.

The experience of the Atomic Bomb Casualty Commission in studying Japanese survivors in Hiroshima and Nagasaki serves as a model for future studies of communities exposed to unusual environmental contamination, the report says.

Among case histories summarized is that of workers in Hopewell, Virginia, who became ill after dealing with a pesticide, Kepone. The workers not only were severely ill themselves, they wore their contaminated clothing home and many of their family members also became contaminated.

Instances of lead pollution from smelters causing lead poisoning in the surrounding neighborhood are cited in Idaho and Texas. Other dangerous chemicals were absorbed by children near copper smelters and zinc smelters.

The PBB poisoning episode in Michigan occurred when a fire-retardant chemical mistakenly was put into bags of cattle feed. Cattle sickened and died.

The widely reported Love Canal episode concerned chemicals dumped as waste into an abandoned canal. Houses bordering on the dump area became contaminated, families were relocated and dwellings boarded up.

The Oak Ridge National Laboratory now has a Crisis Response Team that will search the scientific journals on a chemical that may be a health threat and provide summary information within 24 hours.

Most contamination problems are considered to be local and to require only practical public health control measures, the report declares. Local authorities can, if necessary, draw on state and national support resources.

Leukocytosis During Long-Term Lithium Treatment

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Peripheral blood specimens from 34 manic-depressive patients treated with lithium carbonate were examined for white blood cell count changes. Leukocytosis was present in 13 patients (39 percent) and persisted throughout lithium treatment in 6 patients. Neutrophilia was found in 33 of 34 patients and was sustained during the lithium therapy. This side-effect has been used to treat leukopenic conditions resulting from different diseases. It should not be confused with leukocytosis due to infection.

Lithium carbonate is well established in the treatment and prevention of manic-depressive psychosis. Hematologic changes have been found associated with lithium carbonate. Unexplained increases in WBC (white blood cell) counts have occurred during subacute or chronic states in psychiatric patients treated with lithium carbonate.[1–4] Mayfield and Brown[1] reported a consistent elevation in leukocytes accompanying lithium administration and a fall concomitant with its withdrawal. In their series, the mean of all WBC counts during lithium administration was 14,252, the highest being 16,000 per cubic millimeter. O'Connell[2] observed an intermittent leukocytosis in an outpatient population receiving lithium carbonate for the prophylaxis of recurrent affective disorders. This leukocytosis was statistically significant when compared with pretreatment levels and with a control group. Murphy, Goodwin, and Bunney,[3] studying 28 manic-depressive patients, noted the same effects. The same phenomenon was also noted in a study conducted by Shopsin, Friedmann, and Gershon[4] who studied 23 patients on lithium carbonate.

We undertook the study of a group of manic-depressive patients treated with lithium carbonate in our hospital to ascertain the presence of leukocytosis.

Material and method

Forty consecutive manic-depressive patients treated with lithium carbonate were examined physically in the course of the years 1979 and 1980 to ascertain the presence of infection. Different tests (chest x-ray, sedimentation rate, urine for culture) were performed to exclude the presence of infection. Six patients were excluded on this basis (three with clinical evidence of infection and three with sedimentation rates higher than 10). Out of the 34 remaining patients, 16 were outpatients and 18 were inpatients. Total WBC and differential counts as well as sedimentation rates and plasma lithium levels were performed after the patient was found suitable for inclusion in the study. The charts of these patients were reviewed, and evaluation of all the WBC counts performed before and after the start of lithium carbonate were recorded. Those tests showing evidence of infection—high sedimentation rate or evidence of clinical infection at the time the test was performed—were excluded. Plasma lithium levels recorded at the time these tests were performed were included in the study. The aim of this test was to determine the presence or absence of any correlation between plasma lithium levels and leukocytosis.

Of the total number of patients, 14 were females and 20 were male patients. Their ages ranged from 21 to 73 years with a mean of 49.3 years. The demographic data of these patients are presented in Table I.

The patients have been on lithium therapy from 1 to 13 years (mean 5.7 years), with current doses varying from 450 to 2,100 mg. per day (mean dose, 1,175 mg. per day). Ten patients were receiving only lithium while 24 patients were on a combination of lithium and various psychotropic drugs. Four patients took antidepressant agents. Twenty were on various types of phenothiazines. Their doses were reduced to chlorpromazine equivalents, according to Davies.[5] The doses ranged from 150 to 2,000 mg. per day of chlorpromazine equivalence, with a mean of 600 mg.

Results

The normal figures for the WBC count are: total WBC: 5,000 to 10,000 per cubic millimeter, neutrophils (adult) 54 to 62 percent, neutrophils (juvenile) 3 to 5 percent, eosinophils 1 to 3 percent, basophils 0 to 1 percent, lymphocytes 25 to 33 percent, and monocytes 3 to 7 percent.

TABLE I. Demographic data on lithium-treated patients

Variables	Males (N = 20)	Females (N = 14)
Age (in years)		
Range	21 to 73	36 to 64
Mean	47.5	52
Duration of lithium treatment (in years)		
Range	1 to 13	1 to 1[illegible]
Mean	6.5	4.9

Total WBC count. The total WBC count before the institution of lithium carbonate treatment varied between 5,300 and 9,600 per cubic millimeter (mean 7,303). The corresponding values after lithium therapy was initiated ranged from 5,300 to 18,500 per cubic millimeter (mean 11,518). Out of the total patient group, 13 patients, or 38 percent had WBC counts over 10,000. Six patients (17 percent of the total) had sustained WBC counts over 10,000 while one patient had an intermittent leukocytosis. None of the patients had readings over 10,000 at any time before lithium carbonate therapy was started.

Neutrophil count. In the pretreatment period, the neutrophil count varied between 54 and 78 percent of the total white cell count. Only two readings showed levels above 62 percent. On the other hand, in the post-treatment period, 33 patients showed neutrophil counts varying between 63 and 91 percent. In one patient, there was a 56 percent neutrophil count. In all the patients, the readings showed sustained neutrophilia during the course of treatment.

Other WBC components. There was no evidence of abnormality in the remaining components. As expected, there was relative lymphopenia. In particular, at no time was there evidence of an abnormal number of juvenile leukocytes.

Plasma lithium levels. The plasma lithium levels varied between 0.39 and 0.98 mEq. per liter (mean 0.61). There was no correlation between the WBC level and plasma lithium levels.

Comment

As seen in our results, lithium therapy causes leukocytosis in a large number of patients. This leukocytosis is of the neutrophilic type. In most cases it is sustained during the course of lithium therapy. This effect has been noted to occur rapidly and is observed within a week of initiating therapy. Then, it returns to normal when lithium administration is discontinued.[2,4] This leukocytosis, however, is not accompanied by the appearance of juvenile leukocytes, which may signal the onset of infection. In fact, all the blood components studied were within normal limits.

The mechanism by which lithium carbonate induces leukocytosis has been postulated as a direct action on the bone marrow, thus stimulating the pluripotent stem cell to differentiate into granulocytes.[6,7]

This side-effect has, more recently, been used to treat conditions accompanied with leukopenia: Felty's syndrome,[8,9] neutropenia in acute myeloid leukemia,[10] neutropenia in aplastic anemia,[11] neutropenia induced by cancer chemotherapy,[12–14] and leukopenia induced by psychotropic agents,[15–17] with favorable results.

An important point that needs to be emphasized is that this side-effect does not seem to be related to the lithium plasma level and, consequently, lithium has been used to treat leukopenic conditions in lower than conventional doses.[18]

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A series of articles dealing with current status

Recent Advances in Management of Carcinoma

Management of Prostate Carcinoma

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Prostate carcinoma is the most frequent cancer among men over 65 years of age, causing approximately 22,000 deaths annually. This article reviews the methods of clinical detection, current diagnostic and staging procedures, principles and therapeutic alternatives of management, and complications.

Carcinoma of the prostate is the most common cancer among men over 65 years of age,[1] and it is the second most frequent cause of cancer death in the United States. There are approximately 66,000 new cases of carcinoma of the prostate diagnosed each year, with 22,000 deaths annually.[2] The incidence and mortality rates among U.S. blacks are higher than among U.S. Caucasians.[3] The cell type in virtually all cases is adenocarcinoma.

Clinical detection

Early detection usually follows the finding of a small prostatic nodule by rectal examination. Alternatively, unsuspected carcinoma of the prostate might be noted in the surgical specimen removed after treatment of prostatic hypertrophy by transurethral resection of the prostate or suprapubic or retropubic prostatectomy. Some patients first appear with difficulty initiating micturition, urinary dribbling, urinary retention, and hematuria. Patients with advanced carcinoma of the prostate might appear with recent onset or chronic obstructive urinary symptoms, azotemia, anemia, anorexia, weight loss, or bone pain from metastasis. Rarely is the first finding a pathologic fracture, inguinal or supraclavicular adenopathy, or disseminated intravascular coagulation.[4]

Diagnostic and staging procedures

The most important diagnostic procedure is the rectal digital examination. Fifty percent of isolated and indurated or irregular palpable nodules of the prostate are proved carcinoma after biopsy.[5] Different methods of prostatic biopsy are currently used; needle biopsy, either perineal or transrectal, is preferred, but on occasions, open perineal biopsy is required. Serum enzymatic prostatic acid phosphatase might be elevated. Generally, elevation of the serum acid phosphatase indicates metastatic disease. However, 25 percent of patients with locally extensive disease (Stage C) have elevated serum acid phosphatase.[6] The radioimmunoassay[7] and the counterimmunoelectrophoretic[8] methods of prostatic acid phosphatase determination have recently been introduced and appear to be more specific and more sensitive for prostatic acid phosphatase, but the true value of these tests in the diagnosis of otherwise unsuspected carcinoma of the prostate is not clear. It is hoped that with these tests those patients with disease localized to the prostate can be identified earlier than they were by enzymatic determinations that have been used in the past. When this is reliably achieved, considerable progress will have been made in terms of early diagnosis of carcinoma of the prostate. Alkaline phosphatase is frequently elevated in patients with bone metastasis.[9] Patients with carcinoma of the prostate should receive a chest x-ray, plain film of the abdomen, excretory urogram (intravenous pyelogram), cystoscopy, and bimanual examination under anesthesia. Metastatic bone surveys in patients with bone metastasis frequently are positive for cancer, with osteoblastic changes in 90 percent of patients and/or positive findings in radioisotope bone scans. Radioisotope bone scan findings are positive in about 20 percent of patients with negative results of metastatic series.[10]

Pedal lymphograms to assess the status of pelvic

TABLE I. Stages of carcinoma of the prostate*

Stage		Finding
Stage A (Occult)	Stage A-1-F	Microscopic focus of carcinoma
	Stage A-1	Three or fewer microscopic foci of well-differentiated carcinoma, or microscopic tumor involving less than one lobe
	Stage A-2	Multifocal or diffuse carcinoma
Stage B (Nodule within Prostate)	Stage B-1-N	Solitary nodule of firm or stony consistency no more than 1.5 cm. diameter
	Stage B-1	Nodule involving most of one lobe
	Stage B-2	Diffuse nodular involvement of both lobes
Stage C		Firm induration or stony hardness extending through the prostatic capsule
Stage D	Stage D-1	Regional metastasis to lymph nodes below aortic bifurcation
	Stage D-2	Distant metastasis to lymph nodes above aortic bifurcation to other sites

* After Whitehead and Leiter.[5]

TABLE II. Therapeutic alternatives for carcinoma of the prostate

Stage	Therapeutic Alternatives
A-1	Observation, or radical prostatectomy, external or interstitial irradiation, with/without staging lymphadenectomy
A-2	Radical prostatectomy, or external or interstitial radiation, with/without staging lymphadenectomy
B-1	Radical prostatectomy, external or interstitial radiation therapy, with/without staging lymphadenectomy, or observation (B-1-N)
B-2	Radical prostatectomy or external or interstitial radiation therapy with pelvic lymphadenectomy
C	Radical prostatectomy or external or interstitial radiation therapy with pelvic lymphadenectomy, radical prostatectomy, and hormonal therapy with castration with pelvic lymphadenectomy, observation with/without hormonal therapy or castration
D	Hormonal therapy and/or castration, cryosurgery, nonhormonal cytotoxic chemotherapy, palliative radiation therapy for bone pain

nodal involvement, when findings are grossly positive, are of assistance in staging the disease and in selecting therapeutic alternatives (Table I).[11] The ultimate staging procedure is pelvic lymphadenectomy.

Pelvic nodes are positive in 15 to 20 percent of patients with Stage B-1 disease, 25 to 35 percent of patients with Stage A-2 and Stage B-2 disease, and 40 to 60 percent of patients with Stage C disease after pelvic lymphadenectomy.[12] Thus, at the present time, it is generally believed that staging lymphadenectomy should be performed in all patients except those with Stage A-1, and perhaps Stage B-1, disease, most of whom would not be expected to have positive pelvic lymph nodes. In patients with Stage A-1 disease, further therapy might not be required[13]; for Stage B-1 patients the incidence of positive lymph nodes would be so low that some urologists and radiation therapists do not suggest staging lymphadenectomy prior to definitive therapy with radical prostatectomy or radiation therapy.

Survival of patients with carcinoma of the prostate correlates well with the stage and grade of the disease at the time of diagnosis,[14-16] which may be more important than the method of therapy selected. Therefore, it is recommended that all men over 50 years of age should receive a careful rectal digital examination at least one time per year.

Treatment

In deciding whether radical prostatectomy, supervoltage external radiation therapy, interstitial irradiation therapy, or conservative therapy should be employed (Table II), it is essential that the patient's expected longevity and expected quality of life be carefully evaluated with respect to the extent of disease (stage and grade) and any intercurrent illnesses. In addition, the risks and complications of each therapeutic alternative and the patient's acceptance of the morbidity associated with these procedures must also be taken into consideration.

Radical prostatectomy. The generally accepted procedure of choice, at the present time, for cure of those patients with localized disease (Stage A and Stage B) is radical prostatectomy (total prostatectomy with seminal vesiculectomy and excision of a cuff of bladder neck), performed either by the retropubic or perineal approach, usually after simultaneous or earlier staging pelvic lymphadenectomy.[17,18] Radical prostatectomy should be limited to those patients with localized disease who: 1) have a negative lymphadenectomy; 2) are otherwise in reasonably good health; 3) are usually less than 70 to 75 years of age; 4) have a good prognosis for a 10-year survival; 5) are willing to accept secondary erectile impotence that occurs in many patients—with the possibility of subsequent penile prosthesis implantation; and 6) are willing to accept the modest risk of urinary incontinence—with the possibility of subsequent anti-incontinence prosthesis implantation.[19] Unfortunately, only 5 to 10 percent of patients meet these criteria.

After radical prostatectomy for patients with Stage A and Stage B disease, the combined survival rates are as follows: 5-year, 70 to 80 percent; 10-year, 50 to 60 percent; and 15-year, 30 to 40 percent.[11]

Radical prostatectomy for Stage B disease can give a 15-year survival rate as high as 65 percent.[20] After radical prostatectomy for patients with Stage C disease, the 5-year survival rate approximates 60 to 70 percent, and the 10-year survival rate approximates 30 to 50 percent.[11]

Because radical prostatectomy offers significant palliation to patients with Stage C disease, it has been recommended for those patients with significant local symptoms with this stage of disease.[21] In certain circumstances, the preoperative use of DES (diethylstilbestrol) for six months to "convert" some Stage C tumors to resectable tumors with radical prostatectomy has produced a 5-year survival rate of approximately 60 percent, a 10-year survival rate of approximately 50 percent, and a 15-year survival rate of approximately 30 percent.[22]

External supervoltage radiation. External supervoltage radiation therapy has had a curative role in localized (Stage B) and locally invasive (early and advanced Stage C) carcinoma of the prostate. With this method of treatment the prostate and pelvic nodes are incorporated into the radiation field, and if metastases in the nodes are present a beneficial effect might be expected. Doses vary between 4,000 and 5,900 rad, but can be as high as 7,000 rad over a period of seven weeks.[23] It has been noted that almost one half of the patients receiving supervoltage radiation therapy for localized prostatic cancer had residual tumor present one and one-half years after radiation therapy,[24] and after seven years only one third of patients had negative prostatic biopsy specimens.[25] There is, however, controversy regarding whether or not these tumors are still biologically active and potentially lethal to the host.

After external radiation therapy for patients with Stage A and Stage B carcinoma of the prostate, the 5-year survival rate approximates 70 to 90 percent, and the 10-year survival 50 to 80 percent.[11] After external radiation therapy for patients with Stage C disease, the 5-year survival approximates 48 percent (significantly less than the 60 to 70 percent following radical prostatectomy), and the 10-year survival rate approximates 30 percent.[26]

Interstitial I^{125} or Au^{198} radiation therapy. The primary aim of implantation of I^{125} or Au^{198} (radioactive isotopes of iodine and gold) is to minimize the complication rates and side-effects compared with those following radical prostatectomy or radiation therapy, and at the same time obtain adequate tumor control. Patients considered for interstitial radiation therapy should be in otherwise reasonably good health and have an estimated minimum life expectancy of at least five years.

Since its introduction in 1972,[27] interstitial I^{125} combined with pelvic lymphadenectomy has received considerable application and is being performed in several medical centers, including the Beth Israel Medical Center in New York City.[28] Patients selected for this form of therapy generally have localized disease not greater than Stage C. If the pelvic lymph nodes are positive, postoperative radiation therapy is usually recommended. After treatment with I^{125}, the combined five-year survival rate of patients with Stage B and Stage C disease has been reported to be 83 percent (58 percent tumor-free); for patients with Stage B disease the five-year survival rate is 90 percent (69 percent tumor-free), and for patients with Stage C disease the five-year survival rate is 74 percent, (46 percent tumor-free).[29]

Interstitial Au^{198} implantation into the prostate after bilateral pelvic lymphadenectomy supplemented by external radiation therapy, particularly for patients with Stage C disease, is an alternative procedure. The 5-year survival rate for patients with Stage A-2 and Stage B disease approximates 90 percent, and the 10-year survival rate approximates 80 percent.[30] For patients with Stage C disease the one-to-five-year survival is 25 percent and the five-to-ten-year survival is approximately 30 percent.[31]

Complications after surgery and radiation therapy. The complications following radical prostatectomy include: temporary stress and/or urgency, urinary incontinence, permanent total urinary incontinence, and impotence.[11] The complications following external radiation therapy include: impotence, prostatitis, cystitis, bladder-neck contracture, dysuria, urethral stricture, dermatitis, colitis, and anorectal stenosis. The most frequent complications after interstitial I^{125} implantation and pelvic lymph-node dissection are: lymphocele, hematoma, pelvic abscess, cellulitis, pulmonary embolus, and wound infection.[32] We have found the incidence of urinary incontinence to be nil and the incidence of impotence approximately 12 percent.[28] Others have reported impotence in only 7 percent of patients,[32] and, similarly, after Au^{198} radiation therapy, impotence occurs in less than 20 percent[33]; after radical prostatectomy by any route, the incidence of impotence is approximately 90 percent,[34] and the incidence of incontinence may be significant. After external supervoltage radiation therapy the incidence of impotence is as high as 50 percent.[11]

At the present time it is not clear if either radical prostatectomy, external radiation therapy, or interstitial therapy are superior to the other means, in terms of survival. However, it appears that interstitial radiation therapy offers at least comparable survival statistics to those of the other therapeutic alternatives, with the benefit of improved quality of life after therapy in terms of a lower comparative incidence of impotence, incontinence, and bowel and urinary problems.[33]

Conservative therapy. Because localized or metastatic carcinoma of the prostate might be an extremely slow-growing and indolent tumor, some urologists prefer observation with follow-up only, particularly in elderly and poor-risk patients. A recent report indicates that biopsy or biopsy and endocrine manipulations alone, for localized carcinoma of the prostate (Stage A and Stage B), can result in a high proportion of long-term, cancer free survivors.[34]

Cryosurgery. Although rarely used, cryosurgery of the prostate by the transurethral or open perineal approach, sometimes with a percutaneous trocar cryoprobe,[35] has been found effective in eradicating the local lesions[36] and, perhaps, in stimulating an immunologic response.[37]

Hormonal therapy and/or castration. Exogenous estrogen therapy or castration (bilateral orchiectomy) are currently the appropriate treatment choices for palliation of pain, and expectant relief of urethral and ureteral obstruction in patients with metastatic carcinoma of the prostate. Frequently, a dramatic symptomatic response is noted in patients with bone pain due to metastases. Approximately 70 to 80 percent of such patients treated for the first time will have a favorable response.[38] Bone metastases may disappear, the serum acid phosphatase may return to normal, the prostate frequently shrinks in four to six weeks, and the previously palpable tumor may no longer be apparent. However, it does not appear that survival is increased by hormone therapy and/or castration, and eventual relapse of the disease usually occurs in most patients after two to three years.[38]

It has been clearly shown that 1 mg. of DES per day produces a satisfactory benefit in terms of tumor control while substantially reducing the incidence of thromboembolic complications, in comparison with those noted with doses of up to 5 mg. of DES per day.[39] Estrogen therapy must be employed cautiously in older patients because of the potential complications of DES therapy—cardiovascular effects, gynecomastia, nausea, and fluid retention; whereas bilateral orchiectomy is a safe, quick surgical alternative that may be expeditiously performed under local anesthesia with minor morbidity, achieving equal palliation, equally decreased serum testosterone, and a lower risk of cardiovascular hazard. Testicular prostheses are rarely required after bilateral orchiectomy. In addition, it has been noted that in patients over 55 years of age treated with estrogen the mortality rate from cardiovascular disease increases with age regardless of the presence or absence of identifiable cardiovascular disease, and in patients who receive estrogen the risk of death is doubled if preexisting cardiovascular disease is present, compared with patients of equivalent age without cardiovascular disease.[40] Medical adrenalectomy with aminoglutethimide has been advocated for progressive metastatic disease that is unresponsive to conventional therapy.[41]

Nonhormonal cytotoxic chemotherapy. In many patients a relapse ultimately occurs after temporary hormonal control or response to bilateral orchiectomy; some patients are unresponsive to such therapeutic manipulations from the outset. It is in these patients that recent studies have demonstrated a beneficial effect in terms of relief from pain, increased performance status, objective stabilization, and partial regression of disease when treated with nonhormonal chemotherapeutic agents, such as cyclophosphamide (Cytoxan) and 5-FU (5-fluorouracil). In one study a beneficial effect occurred after therapy with cyclophosphamide in 46 percent of patients, and a similar beneficial effect occurred in 36 percent of patients after therapy with 5-FU.[42,43] In addition, a beneficial effect has been noted using estramustine phosphate (Estracyt).[44] Chemotherapy is generally well tolerated in older patients although signs of toxicity must be carefully monitored and a reduction in dosage made as necessary.

Preliminary studies from the National Prostatic Cancer Project indicate that a combination of hormone and a cytotoxic agent, such as DES and cyclophosphamide, delays progression substantially beyond that customarily following treatment with hormones alone. Patients who show a significant response to chemotherapy also survive longer.[45] A recent report reveals encouraging preliminary data indicating superior results with combined hormonal (bilateral orchiectomy or DES) and chemotherapy (cyclophosphamide or 5-FU),[46] and another recent preliminary report indicates superior results with similar hormonal therapy and cis-platinum.[47]

Conclusion

In conclusion, it is hoped that in the future further refinements in staging will occur through the employment of receptor site determination tumor markers, either hormonal (androgens and estrogens) or immunologic, and biochemical factors.[48,49] In addition, it is expected that the use of adjuvant chemotherapy in patients undergoing radical prostatectomy, external radiation therapy, or interstitial irradiation therapy, after negative pelvic lymph-node staging, will show improvements in both the quality of life and the length of survival after therapy.

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Scientific Sessions held at
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February 4, 1980

ABSTRACTS AND REPORTS OF PROCEEDINGS

New York Society for Cardiovascular Surgery

ALLAN ELLIA BLOOMBERG, M.D., Editor

Fall Session

The Fall meeting of the New York Society for Cardiovascular Surgery was held on February 4, 1980, at the North Central Bronx Hospital. Joseph A. Buda, M.D., President of the Society, was in the chair.

Dr. Buda: The first paper of the evening will be presented in abstract form as the following article.

Extra-Anatomic Bypass

Changing concepts

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The utility and low operative risk of F-F (femorofemoral) and A-F (axillofemoral) bypasses are well established. During the past three years we have used expanded PTFE polytetrafluoroethylene grafts to perform 42 F-F, 40 A-F, and 26 A-P (axillopopliteal) bypasses. Three-year life table patency rates are 88 percent (F-F), 83 percent (A-F), and 45 percent (A-P). Operative mortality rates were 0, 3, and 4 percent respectively. Further analysis of this experience has resulted in several conclusions. First, TLA (transluminal angioplasty) can correct a hemodynamically significant iliac artery stenosis that coexists with a contralateral iliac occlusion. In seven cases this has permitted performance of F-F bypass in circumstances that would otherwise have required A-BF (axillobifemoral) or aortobifemoral bypass. Femorofemoral bypasses performed after TLA appear to have patency rates equal to standard F-F procedures. Second, if only one limb is threatened, unilateral A-F bypass rather than A-BF bypass should be performed. In contrast to previous reports, the three-year patency for unilateral procedures (80 percent) has equaled that of A-BF operations (84 percent) in our experience. Third, A-P bypass is useful in patients facing imminent amputation in whom no standard arterial reconstruction is feasible because of disease or infection involving groin and intra-abdominal arteries. We have achieved limb salvage for over one year in 12 of 20 patients and for over two years in four of eight patients. These data indicate that TLA and PTFE grafts may help to extend the utility, effectiveness, and simplicity of extra-anatomic bypass.

The next paper appears in its entirety.

Thoracic Outlet Syndromes

Real or imaginary?

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Thoracic outlet syndrome is a real entity. Differential diagnosis is important and interference with arterial and/or venous flow for whatever reason often requires contrast studies and in some instances operative correction. Patients suffering from neurologic symptoms are the most frequently observed group, and require accurate diagnosis and, for the most part, conservative nonoperative therapy. No single operation is ideal. Rather, each patient should have the procedure that is tailored to his special needs.

There is an Alice-in-Wonderland aspect to some of the papers appearing in surgical journals describing various authors' experiences with thoracic outlet syndromes. For the most part they are expansive, favorable, and suggest that "all systems are go." Occasionally one finds a paper suggesting that all is not "beer and skittles" and that a conservative and selective surgical approach is in order.

For instance, in 1976 Roos (in discussion with Stallworth)[1] states that he had performed more than 1,000 first-rib resections in 12 years, culled from some 3,000 patients examined. The latter figure is derived from an earlier report by Roos[2] that only one third of his patients required an operation. Urschel stated that he had operated on 900 patients with thoracic outlet problems with good results in 90 percent, similar to the findings of Roos.[1] Both surgeons found that some 95 percent of their patients suffered from neurologic interferences with the brachial plexus and no more than five percent were troubled with arterial and venous abnormalities. Recently, Kelly[3] recorded his experiences with 304 patients subjected to first-rib resections in a ten-year period; 12 had a venous problem and none had difficulty with the subclavian artery.

Of further interest, Roos and Kelly decry electrodiagnostic tests as uninformative and arteriograms as of little or no value. They rely on several clinical tests such as the three-minute elevated-arm exercise test, wherein early fatigability and heaviness of the involved arm develops, associated with gradual onset of numbness and tingling in the hand. As noted by Kelly,[3] Wright[4] found obliteration of the radial pulse in at least one upper extremity that was tested in an elevated arm position in 92.6 percent of 150 asymptomatic normal patients. It is obvious that this test, recommended by Roos, simply interferes with arterial flow to the upper extremity and has nothing to do with the brachial plexus. The second test recommended by Roos and Kelly is the observation that thumb pressure on the brachial plexus in the supraclavicular fossa causes tenderness and numbness when the patient has a thoracic outlet problem. I submit that all normal patients will experience exactly the same symptoms.

It is my belief, shared by Dale and Lewis,[5] Stallworth, Quinn, and Alben,[1] Brindley,[6] and Klinefelter,[7] that patients who experience symptoms in the upper extremity should be categorized into arterial, venous, or neurologic subsets for diagnostic accuracy. The arterial group may require special tests and may require conservative or operative therapy. Similarly, patients who have interference with flow through the subclavian vein will be diagnosed and treated in a variety of ways.

In the neurologic group of patients—by far the largest number—a careful and deliberate progression of diagnostic tests and conservative therapeutic measures should suffice in the overwhelming majority of patients. Electrodiagnostic tests are valuable for unmasking the carpal tunnel syndrome, not infrequently initially confused with thoracic outlet syndrome. Here operative intervention, when the median nerve is significantly compressed, will be curative. With the exception of a clinically obvious cervical rib as the cause of the patients symptoms, I hold that conservatism in the management of patients with neurologic symptoms in the upper extremity should be the order of the day. They should have the benefit of neurologic consultation, physiotherapeutic measures, psychotherapy when indicated, reassurance, and the early settlement, if possible, of lawsuits involving injury, commonly "whiplash" of the cervical spine. It is noteworthy that Cloward[8] in his excellent monograph fails to comment on the thoracic outlet syndrome as a sequela of injuries to the cervical spine including whiplash. In many instances symptoms will clear spontaneously. In others, symptoms are so mild that patients can live with them without serious interference with work or play. Klinefelter[7] has observed marked improvement in some 200 patients when Johnson's[9] exercises are conscientiously followed.

Differential diagnosis includes cervical medullary cord tumors, cervical root pressure due to an arthritic spur or protruded intervertebral disk, amyotrophic lateral sclerosis, multiple sclerosis, peripheral neuritis secondary to alcoholism and vitamin deficiency, and last, malingering and self-induced defects.

Unquestionably there are patients who will ultimately need an operative procedure to relieve pressure on one or more elements of the brachial plexus and will obtain excellent results. These patients should be culled carefully from those noted above and, in my opinion, there are not many such patients. In 1978, in four major hospitals in New York City with an acute bed capacity of over 2,000 patients, only seven patients were operated on for thoracic outlet syndromes. From 1949 through 1979 I have personally performed only 205 operations for thoracic outlet syndromes. Similarly, Jacobson[10] from 1962 to 1980 has carried out only 90 operations.

Another bone of contention is the concept of Roos, Urschel, and Kelly that all patients should have the first rib resected by the transaxillary approach; and if a cervical rib is present, then remove it through the same exposure. Although I have performed only 35 transaxillary resections of the first rib, I consider this not to be a "simple" procedure with relatively few complications. In fact, direct injury to the subclavian artery and vein is rare, but injury to the brachial plexus is possible not only by inadvertent laceration and by retractor pressure but also by undue traction on the arm in order to provide exposure for the operation to proceed safely. I am relieved each time a patient has awakened and expressed no new neurologic complaint. I am aware of two patients who suffered serious loss of a useful upper extremity due to marked brachial plexus trauma secondary to excessive stretching during the operation. In one case a huge award was made to the plaintiff and the second one has not yet been resolved. In both instances board-certified surgeons were involved.

On the positive side I would urge surgeons to consider adopting that procedure which is safest and best for the patient's special problems. For instance, if the main objective is to provide room between the clavicle and first rib which is the cause of the difficulty with the brachial plexus and/or the subclavian artery, then Roos and Owens's[11] procedure of transaxillary resection of the first rib is ideal. If the problem is pressure on the subclavian vein, then section of the scalenus anticus muscle and fascia, along with partial excision of the subclavius muscle and costocoracoid ligament is effective.[12] If a cervical rib is causing pressure on the brachial plexus and subclavian artery, resection of the cervical rib and division of the scalenus anticus muscle and fascia through a supraclavicular approach is simple and safe. For the patient whose primary problem is the hyperabduction syndrome, section of the pectoralis minor tendon and scalenus anticus muscle and fascia is usually rewarding.[13] If a direct operative procedure is indicated on the subclavian artery for aneurysm, obstruction, or ulcerated plaque with embolic phenomena, then total claviculectomy with removal of the periosteum to prevent regeneration is the ideal procedure.[14,15] The cosmetic result is excellent and technical safety is at its highest. If there is a bony abnormality of the clavicle, such as nonunion or neoplasm associated with the thoracic outlet syndrome, then total claviculectomy with removal of the periosteum is the best procedure.

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The following paper is abstracted.

Intraoperative Arteriography for Peripheral Vascular Reconstruction

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A retrospective analysis of 391 intraoperative arteriograms performed after reconstructive surgery of the carotid, aorta, and lower extremity vasculature showed the value of incorporating this procedure as a routine only for the last procedure. Identification and correction of inadequacies due to technique are possible. Revisions in technique based on these experiences have significantly diminished their incidence. Routine IOA (intraoperative arteriography) for lower extremity revascularization procedures has further enabled us to reliably classify the run-off and correlate these findings with subsequent graft patency. Late graft closure, predominantly due to progressive or accelerated obliterating atherosclerosis in the distal circulation, occurred almost exclusively within the first year following reconstruction of those patients identified as having poor run-off by IOA. This group in particular should be closely monitored by noninvasive physiologic means and even postoperative arteriography to enable either prophylactic or therapeutic correction.

In some instances, based on IOA or subsequent studies, fruitless and potentially harmful reoperative vascular procedures may be obviated. Correlation with intraoperatively determined electromagnetic flowmeter recordings confirmed the value of IOA and superiority of the latter with regard to prognosis for long-term graft function.

Vascular Access for Hemodialysis

The need for surgical judgment

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The following paper is presented here in its entirety.

Seventeen years after the report of Quinton, Dillard, and Scribner[1] maintenance dialysis has become an accepted method for the treatment of end-stage renal disease. Federal legislation has allowed extension of treatment to almost all patients, regardless of age or socioeconomic status. A complication-free repeated access to the circulation is a prerequisite for the successful rehabilitation of these patients. While the description of vascular access techniques is readily available in numerous reports in the surgical literature, most of these report experience with certain varieties of techniques or modifications of previously described techniques, with little attention being paid to the choice of a particular procedure for a particular patient.[1-4]

As with any new modality of treatment, surgical judgment has matured through trial and error. Some of the general principles learned during construction of vascular access in more than 800 patients with end-stage renal disease during the last nine years will form the basis of this report.

External arteriovenous shunt

Basically, there are two procedures available to the surgeon in establishing a vascular access for hemodialysis. One is the construction of an external A-V (arteriovenous) shunt in which an artery and a vein are cannulated using silastic cannulas. These are then brought through the skin and connected as an external arteriovenous shunt. This was the original method described by Quinton, Dillard, and Scribner[1] and is frequently referred to as a "Scribner shunt." The external A-V shunt is the access of choice for the patient with end-stage renal disease who for any reason is "medically unstable." This includes patients with complications of renal failure such as pericarditis, severe congestive heart failure, widely fluctuating blood pressure with periods of hypotension, sepsis, pulmonary infection, and other types of complications. There are also a number of cases in which this is the procedure of choice for various organizational reasons. If any of these indications are present and the surgeon has decided to construct an external A-V shunt, decisions will have to be made regarding the choice of extremity, peripheral vessels to be cannulated, and the type of cannulas that will be used at the time of surgery. There are advantages and disadvantages to any approach, and careful planning will assure success.

Choice of site for shunt placement

If the shunt is to be constructed in the upper extremity there is no need for patient immobilization, and technically, the arteries in the upper extremity are more accessible and easier to expose.

The disadvantage of using the upper extremity is that it may be more difficult to locate a suitable vein, because in these very ill patients the veins are frequently thrombosed following multiple venous punctures for blood samples and the intravenous administrations of solutions and drugs. In the lower extremity the saphenous vein at the ankle level is usually patent and suitable for cannulation. On the other hand, the arteries in the lower extremities are somewhat more difficult to expose and are more frequently involved with peripheral arteriosclerosis. The posterior tibial artery or the anterior tibial artery can be cannulated. The use of the dorsalis pedis artery is not recommended because motion at the ankle joint may cause dislodgement of the cannula or precipitate trauma to the cannulated artery with early shunt thrombosis.

Preoperative evaluation and choice of cannulas

Prior to proceeding with surgery, careful examination of all four extremities should be carried out. Palpation of peripheral pulses will provide the needed information regarding patency and adequate arterial flow. Using a venous tourniquet, a suitable vein should be located in the upper extremity and marked to facilitate placement of the incision and avoid unnecessary dissection. With the venous tourniquet in place, the surgeon can percuss the vein and determine proximal patency. Frequently veins at the wrist level would be patent, but are then obstructed proximally. These partially obstructed veins are not suitable for cannulation because high venous resistance will precipitate early shunt failure. Since the artery will have to be ligated distally prior to cannulation, it is advisable to use an extremity in which both arteries are patent to avoid complications due to ischemia. Of the numerous types of cannulas available commercially, the straight cannulas were found to be more satisfactory in our experience, because of the ease with which a thrombosed shunt can be declotted using standard shunt declotting techniques or a Fogarty embolectomy catheter. The few minutes spent in planning the procedure carefully will save the surgeon hours of frustration in the operating room searching for a suitable vein or artery, not to mention the morbidity and discomfort associated with extensive dissection, postoperative declotting of thrombosed shunts, and the need for shunt revisions.

Subcutaneous arteriovenous fistula

The peripheral subcutaneous A-V fistula as described by Brescia et al.[5] is currently the procedure of choice for a permanent vascular access in the patient with end-stage renal disease requiring maintenance dialysis. The surgical technique for the construction of such a fistula is simple and detailed descriptions have been published in the surgical literature.[2,4,5] Basically, the procedure involves anastomosis between the cephalic vein and the radial artery at the wrist level in an end-to-side or end-to-end fashion, thus creating a subcutaneous A-V fistula, with the arterialized vein then to be used as an easy repeated access to the circulation. As with the external A-V shunt, careful examination preoperatively of both upper extremities is of the utmost importance. The presence and the adequacy of the peripheral pulses should be ascertained. Using a venous tourniquet, the veins in the forearm should be carefully examined for size, distribution, and proximal patency, using the percussion technique. In most patients the cephalic vein and, less frequently, the basilic vein are the only ones suitable for arterialization. The veins on the volar surface of the forearm are seldom useful for arterialization and dialysis. These thin-walled veins are usually torn by the large dialysis needles, precipitating extensive subcutaneous hematomas and early failure of the vascular access. If the preoperative examination of both upper extremities does not reveal a suitable vein for arterialization, an access using a vascular prosthesis should be constructed as a primary procedure.

Surgical considerations

The following are some of the errors that are likely to be committed by the less experienced surgeon:

1. Proceeding with surgery without a thorough preoperative examination.
2. Constructing an A-V fistula using a small vein in the hope that with the increase in blood flow the vein will eventually dilate sufficiently and allow for successful dialysis. Although these fistulas may appear "technically" successful, as evidenced by patency of the anastomosis, in practice they usually fail due to frequent perivascular infiltrations caused by tears of the small vein or due to the lack of adequate flow for efficient hemodialysis.
3. A thrombosed vein is used in the construction of the fistula after venous thrombectomy during surgery using balloon catheters. Fistulas constructed using "thrombectomized" veins seldom achieve long-term patency.
4. The belief of the surgeon that the construction of a peripheral A-V fistula is worth trying, although the vessels, either the artery or the vein, do not appear to be suitable. A fistula that at the time of surgery, or prior to it, is considered unlikely to succeed, seldom does. The patient is unnecessarily subjected to multiple procedures and eventual rehabilitation is delayed.
5. There is an erroneous belief among some surgeons that a peripheral A-V fistula is rarely successful in diabetic patients or if successful, is frequently complicated with distal ischemia. Neither of these beliefs is true and diabetic patients are suitable candidates for peripheral A-V fistulas.
6. A peripheral A-V fistula is constructed in an otherwise very ill and unstable patient. These fistulas will frequently thrombose during periods of hypotension and low flow, requiring additional surgery.
7. There is a belief among some surgeons that a fistula should preferably be constructed in the nondominant extremity. This is basically true, all other things being equal. In general, however, the choice of extremity should be based on consideration of the quality of vessels available for arterialization rather than the dominancy of the extremity.
8. At the time of surgery, the presence of a pulse without palpable thrill distal to the A-V anastomosis is considered a sign of an adequately constructed A-V fistula. The presence of arterial pulsation in the vein distal to an arteriovenous communication is obviously a sign of patency of the anastomosis. The absence of a palpable thrill, however, is a bad prognostic sign both for short- and long-term patency of the fistula. It may be due to proximal obstruction in the arterialized vein or to a very low flow through the fistula due to arterial spasm. The presence of either should be examined for, and the surgeon believing that thrill will appear later on, is usually disappointed. A useful maneuver during surgery is to leave the anterior suture line of the anastomosis partially incomplete (Fig. 1). An occlusive vascular clamp is placed across the anastomosis allowing flow through the proximal portion. If a thrill is palpable and the fistula appears adequate, the remaining anterior sutures can then be placed. If there is lack of thrill or the flow appears to be inadequate, the vessels are reoccluded, and, using a Fogarty embolectomy catheter, the patency of the vein can be ascertained and the artery can be dilated without the need of interrupting the anastomotic suture line. If mechanical dilatation is insufficient to overcome the

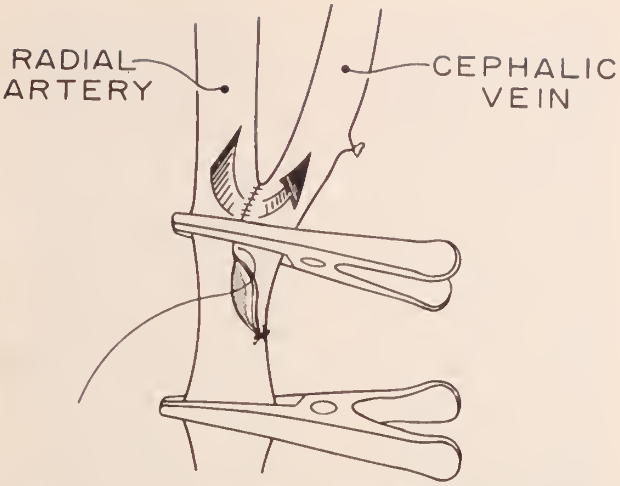

FIGURE 1. Techniques used during surgery to evaluate flow through newly constructed A-V fistula.

spasm, 20 mg. of papaverine is injected intra-arterially into the brachial artery via a percutaneous arterial puncture or through a Fogarty irrigation catheter. These maneuvers have usually been sufficient to overcome arterial spasm. On the other hand, if an unexpected arterial or venous obstruction is encountered, a new fistula will have to be constructed. If before starting the arterial anastomosis, one has tested the vein for peripheral resistance by the injection of heparinized saline, unexpected obstruction in the vein is seldom encountered.

9. Plain x-rays of the upper extremities have shown diffuse arterial calcification and this is considered a contraindication for the construction of a peripheral A-V fistula. This is a false assumption for many heavily calcified arteries on x-ray do carry sufficient flow for construction of a functioning fistula.

10. "Two fistulas are better than one." Patients on maintenance hemodialysis require only one adequate access. All the patients in our experience in whom cardiac failure was thought to be precipitated by A-V fistulization had two simultaneously functioning fistulas.

Use of arterial substitutes

Various types of arterial prostheses have been used in the construction of vascular access for hemodialysis. They have included the use of saphenous vein autografts and allografts,[6–8] modified bovine heterografts,[3,8] dacron velour grafts, and lately the newly available polytetrafluoroethylene (PTFE) vascular prosthesis.[9] These grafts can be placed either in the forearm in a straight or loop fashion,[10] in the upper arm, or in the lower extremity. The basic design of some of these A-V fistulas is illustrated in Figure 2.

Vascular access using any type of prosthesis is somewhat more demanding to construct technically: it has a higher incidence of complications, especially thrombosis or infection; a higher incidence of ischemic complications; and a lower long-term patency rate, when compared with the standard peripheral A-V fistula.[3] Although inferior to the standard fistula, the graft is not necessarily a procedure that should be used only in patients in whom a peripheral A-V fistula has failed. If initial physical examination reveals unsuitable arteries or veins in the upper extremity for construction of a standard peripheral A-V fistula, grafts can and have been used as a primary access procedure. Grafts in the forearm, between the radial artery and the antecubital or brachial vein, are preferred, if they can be performed satisfactorily in a given patient. They are usually more convenient for dialysis purposes.

Grafts in the upper arm between the brachial artery and the brachial vein are reserved for patients in whom both elements, artery and vein, are missing in the forearm. These grafts have a higher incidence of "steal" with peripheral ischemia. We have found that if the pulses distal to the anastomosis in the

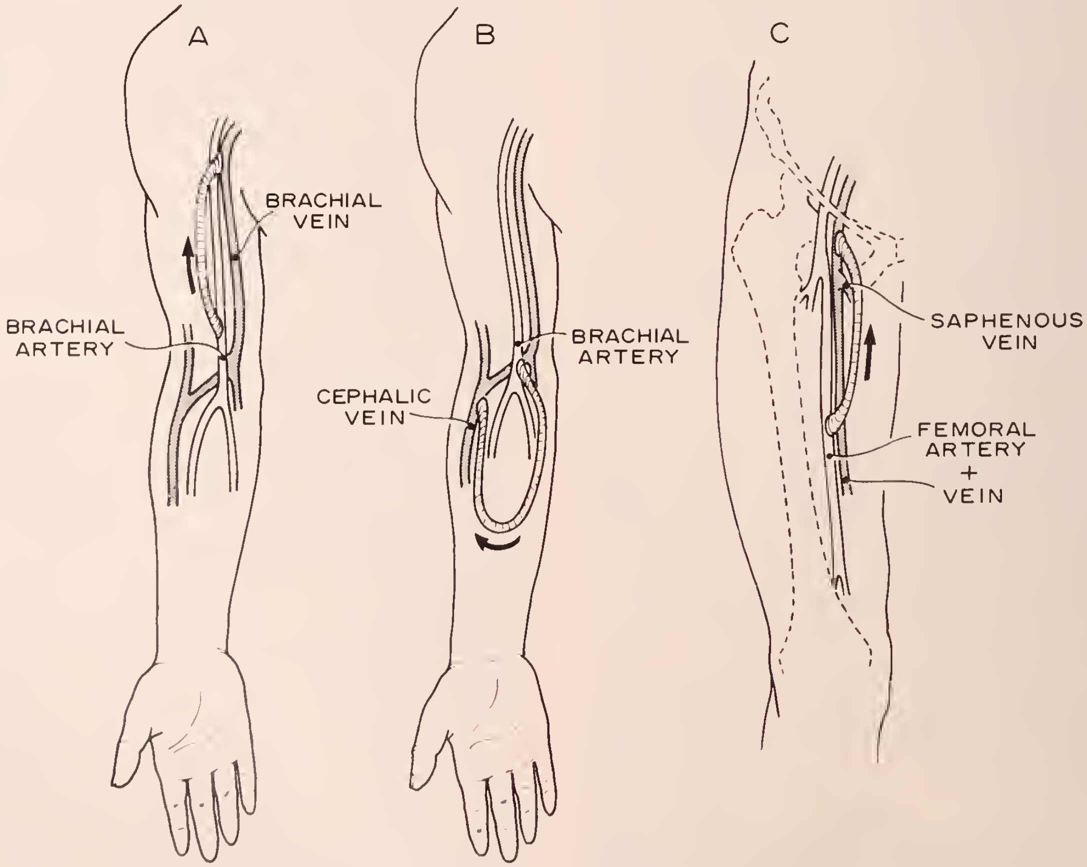

FIGURE 2. Commonly used configurations for A-V fistulas employing vascular prostheses.

upper arm are preserved following release of the vascular clamps, ischemia will seldom occur. However, if the pulses become considerably weaker or disappear completely, the anastomosis should be narrowed to the point where distal pulses are again palpable. If available, intraoperative measurements of the flow through the graft can be helpful in avoiding this complication. A flow of 400 cc. to 600 cc. per minute is usually adequate for dialysis purposes. The main cause for long-term graft failure is endothelial proliferation and thickening of the arterialized vein distal to the anastomosis (Fig. 3). Grafts anastomosed to larger peripheral veins usually have had better long-term patency. In the lower extremity we usually have used the common femoral vein as the outflow vein rather than the saphenous vein for this very reason (Fig. 2).

Summary

The surgical judgment involved in the preoperative evaluation, choice of procedure, and the intraoperative management of patients requiring vascular access for hemodialysis, has been outlined. The external arteriovenous shunt is the access of choice for patients with acute and potentially reversible renal failure, and patients with end-stage renal disease who require immediate hemodialysis or are "medically unstable." The judgment involved as to the choice of site, intraoperative management and technique, and choice of cannula has also been outlined. The peripheral subcutaneous A-V fistula is the procedure of choice for a permanent vascular access. Careful preoperative evaluation of the vessels available for arterialization is of paramount importance. The various pitfalls which may be encountered preoperatively and intraoperatively are stated in this article. Avoidance of these pitfalls combined with meticulous surgical technique will assure early as well as long-term success. The use of arterial substitutes may be required in patients with unsuitable vessels for the construction of peripheral A-V fistulas. Careful choice of site for the placement of these A-V substitutes and intraoperative flow evaluation is important to avoid ischemic complications and to assure satisfactory long-term results. Careful appraisal of lessons learned during the last decade will help prevent morbidity and unnecessary surgery, thus facilitating the rehabilitation of patients with end-stage renal disease.

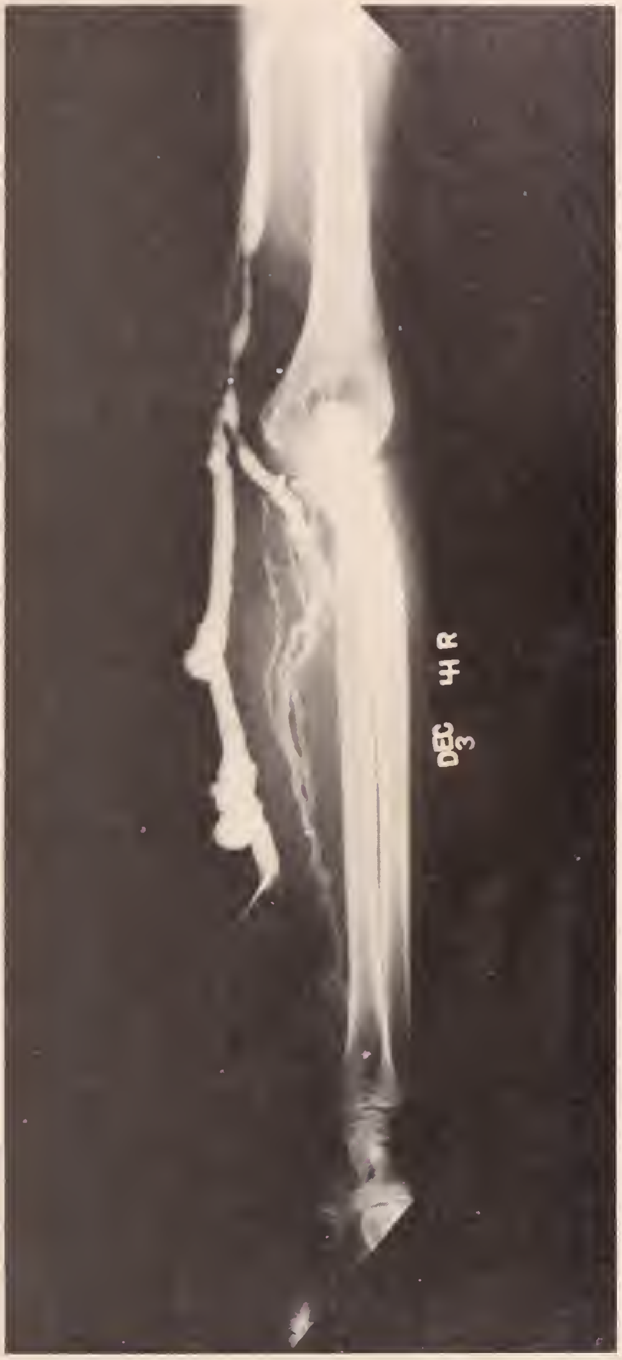

FIGURE 3. Extensive narrowing in brachial vein distal to venous anastomosis in bovine heterograft A-V fistula. Contrast material is being injected directly into heterograft.

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Discussion

Dr. Jesse Blumenthal: Vascular access for hemodialysis has presented us with vast new problems. I hope that our panelists, Drs. Bonfils, Haimov, Stubenbord, and Tellis will give us some of the answers.

Dr. Bonfils: Bovine heterografts have found wide application as shunts for hemodialysis. The indications for insertion of this study were: failure to mature, lack of veins of satisfactory caliber, or the need for immediate vascular access for hemodialysis. Most of these were brachiobrachial grafts. In the past year, we have favored the radiobasilic or radiocephalic grafts. Femorosaphenous grafts are no longer performed.

In the past two years we have learned that we now can achieve 100 percent immediate patency and satisfactory long-term results. In a particular group, five cases had to be explored to control immediate postoperative hemorrhage, these were perhaps the first five cases, three clotted their grafts within 24 hours, but responded well to thrombectomy.

The bovine graft is a segment of calf carotid artery kept in a glass container with a preservative solution. It usually measures about 40 cm. in length and between 6 and 9 cm. in diameter. Early in our experience we used to insert the largest graft available, but lately we have been inserting a prosthesis 6 to 7 mm. in diameter.

The calf carotid artery is beautiful material to work with. The intima, smooth and shiny, lends itself very well to suturing. We use 5-0 or 6-0 prolene sutures. Earlier, we anticoagulated these patients by giving 5,000 to 7,000 units of heparin. Many of these patients had been dialyzed during the early part of the day, therefore we encountered rather important bleeding. For the past two years, we do not inject heparin if we see that the patient is not clotting, or we give just 2,000 units of heparin at the time of anastomosis.

We can almost always trace thrombosis to faulty puncture technique at the time of hemodialysis. To correct this has involved education and learning for both surgeons and members of the dialysis unit. If the patients are referred right after the thrombosis occurs, we try to do a thrombectomy. If they come 24 or more hours after thrombosis, thrombectomy is not done, particularly if the graft has been inserted for a long time. In these cases, a new graft is inserted. Infection occurred in three arm grafts and four groin grafts and always resulted in the loss of the graft. One patient died of exsanguinating hemorrhage after the rupture of an infected aneurysm.

We haven't used the groin shunt procedure for almost two years. Our only cases of disabling edema and ischemia happened on this type of graft. Groin infections are very difficult to treat; there is also always the danger of leg loss.

Dr. Stubenbord: There are several things that I would like to emphasize from our experience. One, I feel that grafts are performed too frequently and there is not enough emphasis on trying to create a primary fistula, either peripherally in the area of the wrist or more proximally in the antecubital area. We have seen a number of patients whose grafts have developed complications and in whom we could subsequently get a conventional fistula. With the complications that we associate with grafts, I would rather make every effort to get a conventional fistula. I think in many instances this is possible. The percentage of patients in whom we have to place a graft is somewhere in the 5 to 10 percent range and we are not anywhere near experiencing the number of grafts that are being reported in the literature by many groups.

My second point is that good technique obviates many of the problems. Good technique involves both the patient and the nurse in the dialysis unit. It is here that one can be of great service to and for the patient. Cannulation sites should be varied and attention paid to sterility of person and equipment in order to avoid infections, thrombosis, and false aneurysms.

Another concern of mine is the steal syndrome and ischemia that can result from a fistula. If the fistula is a little too big, the steal may be quite apparent. Some of these patients, especially when they are on the machine, complain of much pain in the extremity related to the diversion of blood flow through the fistula. The creation of a fistula is not without hazards and our own experience, one instance, has led to the amputation of an upper extremity. More recently we saw a patient who had several shunts placed about 10 years ago in the forearm and then had a successful transplant. Now, eight or nine years after the transplant, with accelerated atherosclerotic disease, he has a painful ischemic hand because the radial artery is absent and the ulnar artery is markedly sclerotic throughout its course. In the future I think we will probably see more of these long-term problems.

Dr. Vivian Tellis: I would like to stress that although there has been a great deal of emphasis in the literature on bigger and better operations for dialysis access, I do not think that we are doing enough to prevent the problems, as Dr. Haimov has pointed out. Over the years of creating access since 1968, we have become very aware of how precious each blood vessel is and, therefore, we should start as peripherally as possible. The purpose of the procedure is not to have a "good fistula" or a "great anastomosis." It is to provide an easily accessible site for safe venipuncture three times a week for the rest of a patient's natural life. There is no point in creating a fistula in someone weighing 400 pounds and arterializing a vein that cannot be cannulated.

Our first rule is to create a fistula, when possible, long before dialysis becomes necessary. For example, in patients with polycystic disease, end-stage renal failure can be anticipated and a fistula can be performed six months before it is needed. The first dialysis is then an innocuous outpatient procedure instead of a big problem. Likewise, in diabetic patients, people followed in renal clinics, with people who have postoperative problems (such as drug nephrotoxicity) the arm should be protected from venipuncture. The access procedure can then be a simple one.

The second rule, is that the type of incision is important. One tends to think in terms of a large "adequate" incision which is a marvelous rule in vascular surgery. However, dialysis technicians are taught to avoid puncture near a scar. When an incision extends along one half the forearm there is little room for safe venipuncture, so that a technically good operation producing good thrill can result in a fistula useless for dialysis. We therefore tend to make our incisions as small as possible without sacrificing safety.

Rule three is that we avoid placing external shunts unless no other choice exists, because the permanent destruction of an artery and vein should be justified by a reason other than physician convenience.

There really is very little reason to insert two foreign bodies into the vasculature of the average person. Emergency dialysis in patients without access can be performed by various methods. Peritoneal dialysis is one simple method. A subclavian line can be used for hemodialysis. Percutaneous femoral venous cannulation has been possible for numerous years and routine outpatient femoral dialysis is possible for months at a time. Our nephrologists have used this approach for years, with rare complications in proportion to the large numbers being done. There is therefore no reason for the routine placement of an external shunt, although there are times when it is unavoidable. In a patient who has recently had a bifemoral vascular graft and may have had multiple abdominal procedures and does not have a free peritoneal cavity the choices are limited. We may then insert a shunt, but we think very long and hard before we do so.

With regard to choice of procedure, our preference is to anastomose the radial artery and distal cephalic vein near the wrist, if we have that luxury. If this is not possible there often is a larger forearm vein located more proximally that is too deep-seated for the average intravenous puncture. It communicates with the system of antecubital veins and may be undamaged. Also, the radial artery can be used at any point up to its origin. Usually, a little stump of radial artery is available at its origin even when the rest of it is occluded. In the event of infection or other serious problems, it can be ligated with little potential for major complications, unlike a brachial artery anastomosis. When it is unavoidable we do use the brachial artery for anastomosis. We also prefer to avoid use of the ulnar artery. Although others have reported the successful use of both the radial and the ulnar arteries for access, there is always the risk of ischemic injury to the arm; we prefer to avoid the risk. A fistula using the ulnar artery tends to arterialize the basilic vein at the back of the forearm which creates difficulty in venipuncture for technicians as well as for patients. It rolls around and is inaccessible, and thus tends to be impractical.

Recently we have tended to avoid the antecubital fistula because our patients are usually obese, diabetic, or both, and we do not have extensive control over venipuncture. We deal with several dialysis units—treating over 300 patients—and the degree of expertise in venipuncture is highly variable, to say the least. With an antecubital fistula the arteralized segment of vein is short and deep-seated; in that same area lie the brachial artery and median nerve, either of which may be damaged by the 15-gauge needle.

When we have not been able to do a direct arteriovenous anastomosis, (roughly 5 or 10 percent of the time) the reasons can be varied. Inaccessible veins in obese patients have been mentioned. Other examples are drug addicts with no superficial veins, or elderly patients with good veins but no patent distal artery and veins. These are the circumstances in which grafts are used. We keep the technique as simple as possible. The arterial end of the graft is attached to the peripheral radial artery. For the other end, we invariably use the basilic vein above the antecubital crease because below the elbow the graft often ends in a "T" configuration tending to cause turbulence and early occlusion. If the distal artery is unusable we use the proximal artery and make the graft U-shaped. If there have been multiple procedures and the medial arm and forearm are not available we use the external aspect of the arm which has usually been spared. The graft is led across the joint at the extremity of the crease, rather than the middle, so that even in full flexion of the arm, the graft forms a gentle curve rather than an acute angle. The graft is then curved gently across the biceps, adding considerable length in unoperated area with no major structures that can be damaged by the needle.

Our choice of prosthesis has changed from bovine heterograft to PTFE (polytetrafluorethylene) for many of the reasons Dr. Bonfils outlined. The bovine graft initially is exciting material to use; however, with the passage of time it breaks down causing aneurysms, bleeding, and infection. The resultant problems in management become dreadful. The surrounding tissue reaction is very dense, yet there is no substance to the graft. It is difficult and hazardous either to suture or to excise. The advantage with PTFE grafts is that they are more substantial. When occlusion occurs it can be easily managed. In placement of the upper arm graft, we pass a #24 red rubber catheter through the tunnel. It is exactly the size of the graft so that the tunnel is not too large, enabling one to confirm the absence of any twist, and there is little room for hematoma to collect.

At the end of a year or so, many of these grafts will occlude but they can be easily thrombectomized. A new segment is attached, if necessary, to the venous end and the life of the graft is prolonged. Roughly one half of the grafts performed three years ago, in patients still alive, are functioning. The rate of patency is about 83 percent in grafts (at risk for a year). Infection occurs at times, but infections of PTFE grafts can often be simply managed. A localized infection around a needle site is treated by incision and drainage. We expose the graft, treat it with povidone-iodine, and usually achieve secondary healing. If the graft has been inserted in the preceding two months, the whole substance may be infected and the graft may be lost, but many grafts can be salvaged by conservative management.

To summarize our philosophy, we believe in avoidance of external shunts and creation of access long before dialysis is needed. Every possible effort must be exerted to conserve blood vessels, since the quality of the patients' future life style, measured in years, will depend on good access.

If at all possible, grafts should be avoided, but are preferable to a poorly functioning fistula with inaccessible veins. When a graft is necessary, our experience leads us to prefer PTFE to other materials available at present. With graft insertion, as with other access surgery, the least invasive, least destructive approach that is compatible with good function is the one to be used. Procedures should be planned to simplify the management of future complications because the access route will be deliberately and repeatedly traumatized over many years.

More hospitals to adopt corporate management style

Marketing. Promotion. Diversification. More and more, these watchwords of "Big Business" are entering the vocabularies of our nation's hospital administrators, according to American Hospital Associations writer Donald F. Phillips in the Impact section of American Medical News (May 29).

In order to centralize policy management and control over capital, Phillips explains, hospitals increasingly are adopting a corporate type of organizational structure, with a chief executive officer and a management team of specialists in finance, law, marketing, purchasing, and human resources development.

The shift toward corporate thinking is reflected in the efforts of hospital administrators to apply marketing techniques in their relations with physicians and patients. Physicians, for instant, are wooed by aggressive recruitment campaigns that offer such benefits as help in developing an office practice; relief coverage and flexible scheduling; and the services of nurse practitioners, nurse midwives, and physician assistants.

In addition, hospitals are providing physicians with a wider choice of practice modes, including satellite and mobile clinics, regional group practices and intercommunity cooperative, or shared physician services.

Patients are the focus of an intense effort to market health promotion and physical fitness, inspired by the need for hospitals to diversify beyond traditional inpatient acute care, Phillips says. Cardiac rehabilitation centers, weight control counseling, smoking cessation clinics, and stress avoidance seminars are just a few examples from an explosion of programs that accomplish two things for hospitals: They generate extra revenue and they attract outpatients who eventually may use inpatient services.

There are financial risks in diversifying, and hospitals are seeking ways to minimize those risks, Phillips notes. Some hospitals find it economically attractive to contract with outside firms for services such as data processing and credit and collection if they cannot commit their own resources to these functions.

Hospitals without adequate resources or management expertise also can benefit from diversification by joining a multihospital arrangement. In one system, similar institutions share services, cooperate in planning or merge into multihospital chains. In another system, institutions providing different levels of care integrate their services to improve continuity and quality. This arrangement might involve nursing homes, rehabilitation centers, hospice care, day care, home health care, and a variety of ambulatory services along with primary, secondary, and tertiary care hospitals.

Electrocardiograms of the Month

Montefiore Hospital and Medical Center
The Bronx, New York

Editors
IRA L. RUBIN, M.D.
Head, Department of Electrocardiography
JULIAN FRIEDEN, M.D.
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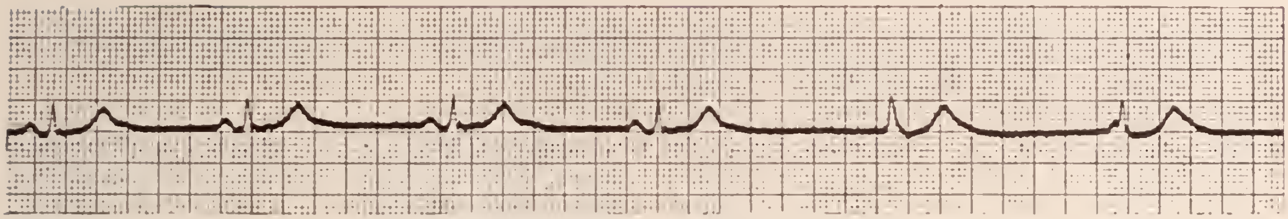
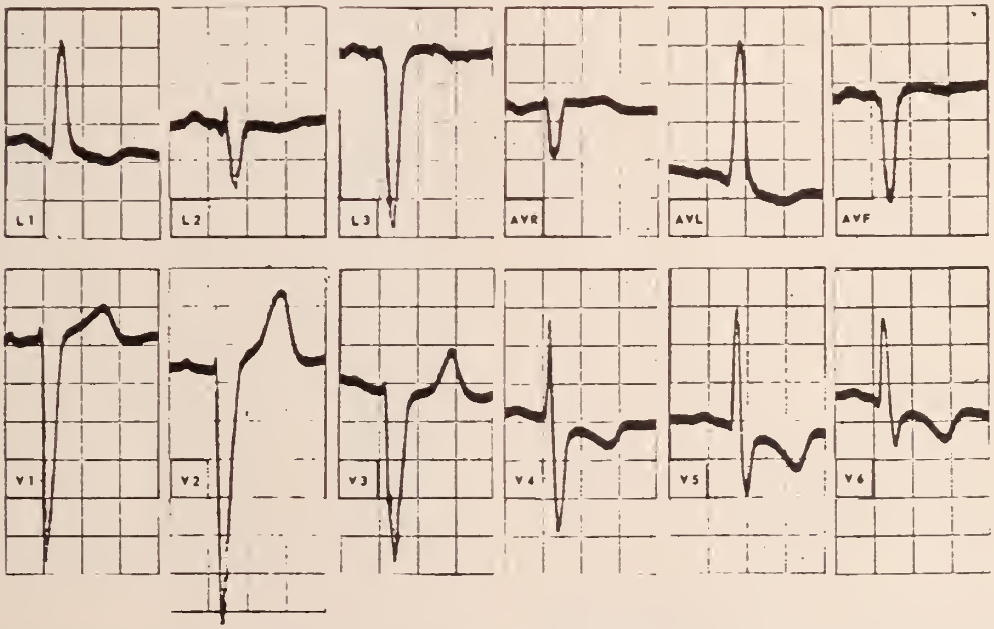


QUESTION 323. Lead 2. What is the rhythm?



QUESTION 324. The patient was a 62-year-old male with a long history of hypertension and anginal syndrome. He was admitted in severe congestive heart failure with chest pain. What is the interpretation of the electrocardiogram obtained on admission?

Electro-
cardiograms
of the Month

ELUCIDATION

Question 323. The initial four beats are sinus in origin at a rate of 49 per minute. The interval between QRS 4 and 5 is greater than that between 1 and 2, 2 and 3, and 3 and 4. The fifth QRS is not preceded by a P wave although it is similar in form but slightly wider than the first 4 QRS complexes (0.10 second compared to 0.08 second). In the S-T segment of QRS number 5 is a negative wave that is not present in the other S-T segments. The inverted wave is a negative P wave. The fifth complex is a junctional escape beat followed by retrograde conduction to the atria.

The sixth QRS is preceded by a P wave but it is superimposed on the QRS. The P wave is upright and similar to the preceding sinus P waves. It is not conducted to the ventricle because the P-R interval is too short. The sixth QRS is also a junctional escape beat.

With marked slowing of the sinus rate, a lower center, usually junctional, escapes and assumes the pacemaking function of the heart until the sinus rate speeds up and resumes control.

Question 324. The rhythm is sinus. The QRS is widened to 0.12 second. There is marked left axis deviation of the QRS. There is a prominent Q wave in lead II and a QS in aVF with a notch on the downstroke. Lead III is initiated with a small r wave. There is high voltage of the QRS with the R in aVL of 18 mm. The T wave is inverted in lead I and aVL. The S-T is depressed and the T wave is inverted symmetrically in V_4 to V_6.

The wide QRS is due to an intraventricular conduction defect. The high voltage suggests left ventricular hypertrophy. The intraventricular conduction defect and the S-T and T changes are probably secondary to left ventricular hypertrophy. The symmetry of the T wave suggests associated myocardial damage and/or ischemia. The small q wave in lead II and the QS in aVF may indicate inferior wall myocardial infarction though the r in lead III makes the diagnosis uncertain. The combination of marked left axis deviation with a Q wave in lead II may indicate left anterior fascicular block in the presence of inferior wall myocardial infarction.

Further evidence found that smoking injures unborn infants

Further evidence of the ill effects of maternal smoking on the unborn infant is presented in a recent issue of an American Medical Association specialty journal.

It had previously been known that fetal growth is restricted by maternal smoking, and that prematurity with all of its attendant health risks, is more common.

And now, reporting on new studies, Stanley M. Garn, Ph.D., of the University of Michigan, Ann Arbor, relates that maternal smoking also substantially lowers the all-important Apgar Score.

The Apgar Score, designed by the late Virginia Apgar, M.D., is a simple set of measurements applied to the infant at exactly one minute and again at five minutes after birth. It gives a quick evaluation of the infant's condition. The physician observes the infant's color, heart rate, respiration, reflex response to nose catheter, and muscle tone. Top score is 10, rarely achieved. The lower the score, the more problems the infant faces. A score of four or less indicates severe problems.

Dr. Garn studied data on 43,492 live-born infants, and found that the proportion of low and depressed Apgar scores is related to the extent of maternal cigarette usage during pregnancy. In particular, the three-pack level of smoking (41 to 60 cigarettes per day) is reflected in a near-quadrupling of low and depressed one-minute and five-minute Apgar scores in both blacks and whites, he says.

The depressed Apgar Score levels in the children of smoking mothers suggests that the fetus may be suffering from prenatal carbon monoxide poisoning, Dr. Garn concludes.

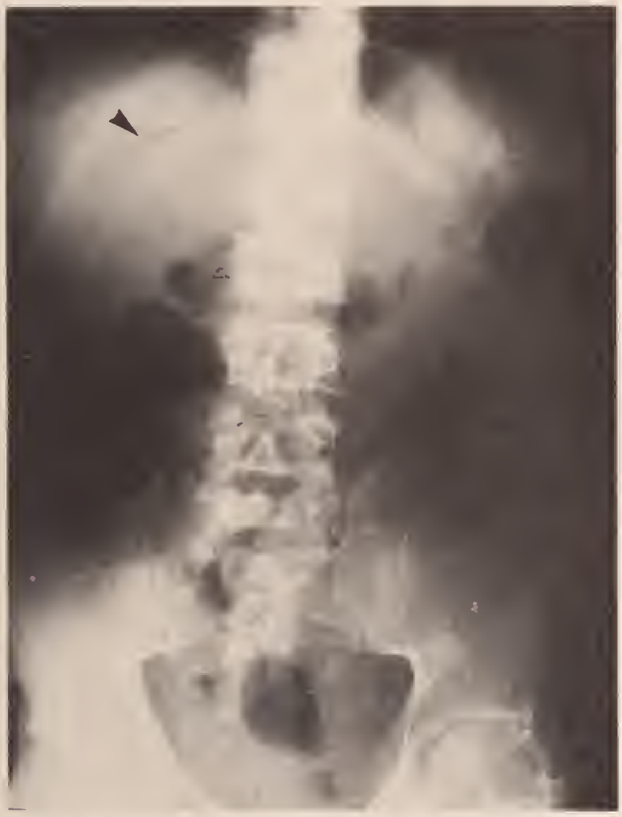
The report is in the June issue of American Journal of Diseases of Children.

Radiologic Problem of the Month

Montefiore Hospital and Medical Center
The Bronx, New York

Editor
KAKARLA SUBBARAO, M.D.
Professor of Radiology at
Albert Einstein College of Medicine

Acute Abdomen



Radiogram of a 41-year-old lawyer whose complaint was acute abdominal pain of few hours duration.

Elucidation

Supine view of the abdomen reveals a nonspecific distribution of gas in the small and large bowel segments. In addition, an arc-shaped lucency (arrow) is present overlying the right lobe of liver. Obviously, this is extraluminal gas and by the anatomical location should be placed in Morison's pouch. Any acute abdominal crisis demands a series of films including a chest film in erect posture, supine and decubitus lateral views of the abdomen, and an erect view of the abdomen including pelvis. These films help in outlining possible etiologies of acute abdominal pain, such as pulmonary embolism, mechanical small bowel, obstruction due to inguinal hernia and colonic obstructions. However, limitations to diagnostic study do exist due either to lack of awareness of the crisis and the appropriate type of investigation by the concerned physician or due to the inability of the patient to cooperate. Hence, only a single supine film of the abdomen is obtained. Besides, these patients often do appear in the emergency room outside of the normal working hours and therefore the expert technical staff is not available This particular case is an example of such a situation and only a single supine film was available.

Of the five subphrenic spaces in which air, pus, or hemorrhage can be collected, the posterior recess of the right subhepatic space (Morison's pouch) assumes great importance and attracted a good deal of attention by the surgeons for drainage purposes.

Early perforation of an abdominal viscus needs a thorough search for small quantities of free gas in the peritoneal cavity. Miller[1] and Nelson[2] demonstrated that with meticulous detail as little as 1 cc. of injected room air could be demonstrated under the diaphragm on an upright chest film. Perforations of stomach and colon generally result in larger pneumoperitoneum even in early stages, whereas perforations of the duodenum, small bowel and appendix result in small quantities of gas in the peritoneal cavity.

The gas may be smaller in amount when the perforation is plugged by omental, mesenteric, and adjacent visceral fat and thereby locally sequester the potential free gas.

Radiological signs of pneumoperitoneum in a supine view of the abdomen[3] include: (1) demonstration of inner and outer bowel walls by gas (Rigler sign); (2) demonstration of falciform ligament as free gas outlines the medial and lateral surfaces of this structure; (3) the football sign of increased central lucency bulging the flanks, often encountered in infants; (4) demonstration of umbilical remnants and their peripheral reflections; (5) gas outlining the lesser sac; and (6) gas limited to Morison's pouch.

The latter collection of gas may take any shape depending on the amount of gas and its ability to distend the space and extend to the rest of the subhepatic space.

The present case represents the arcuate lucency in the nondistended Morison's pouch observed in the supine view as a sliver of gas caught against the posterior wall of the liver. This was due to a perforated duodenal ulcer as proved by the operation. This arcuate lucency represents a perforated viscus and does not specify whether the perforation is of the duodenum or appendix[4] although the former is more likely based on statistics.

Diagnosis

Gas in Morison's pouch from perforated duodenal ulcer

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Chlamydia triggers new epidemic of sexually transmitted disease

The same tiny organism that causes trachoma and blindness in much of the Third World is now behind a soaring new epidemic of sexually transmitted disease in the United States.

The offender is known to medicine as *Chlamydia*. It is not exactly a bacterium, but is not a virus either. It is just *Chlamydia*, and it infects many more persons than does gonorrhea, says King K. Holmes, M.D., of the University of Washington School of Medicine and the U.S. Public Health Service Hospital, Seattle.

In the United States, *Chlamydia* infection is probably about three times as common as gonorrhea among men in many communities, including Seattle, Dr. Holmes says. In the prenatal clinic at the University of Washington, physicians have found chlamydial infection in 5 to 10 percent of all women. Only about 1 percent have gonorrhea.

In an interview in the May 1 Journal of the American Medical Association conducted by Lawrence D. Grouse, M.D., a senior editor of the Journal, Dr. Holmes points out that chlamydial infections are epidemic in this country, yet they are neither well recognized nor correctly treated in many instances.

Nationally there has been an "alarming increase" in the number of cases of ectopic pregnancy and salpingitis, he points out. Each ectopic pregnancy represents one fetal death.

In expectant mothers the disease is particularly serious, in that it can lead to pneumonia or eye infection in the newborn infant. These mothers also are more likely to have miscarriages or stillbirths.

Treatment is with tetracyclines and sulfonamides, which can be effective against *Chlamydia*, but treatment on an outpatient basis has had an unacceptably high failure rate, and many of the victims should be hospitalized for controlled treatment, he says.

Worldwide, the main problem brought by *Chlamydia* has been trachoma. In the United States, genital infections in adults have caused the greatest concerns. Recently there has been emphasis on the impact of the infection on newborns.

Dr. Holmes calls for "Greater awareness, diagnosis, and treatment of *Chlamydial* infections, as well as treatment of the sex partners of patients with chlamydial infections by practicing physicians" to begin to curb the epidemic.

Vasculitis

Associated with renal oncocytoma

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A nonembolic systemic vasculitis may occur in association with malignant tumors, but it has not been reported with benign tumors.

The following is a case report of systemic necrotizing vasculitis associated with a renal oncocytoma. Following the removal of the tumor, all signs and symptoms of vasculitis disappeared. This is the first such case reported in the literature.

Case report

A 72-year-old physician, previously in good health, had three months of progressive myalgias, paresthesias of both feet, Raynaud's phenomenon, intermittent pallor and cyanosis of several toes independent of temperature change, fatigue, profuse diaphoresis, and daily fevers to 39.5°C. He denied any arthritis, photosensitivity, or any cardiorespiratory, gastrointestinal, or genitourinary symptoms. Physical examination revealed a temperature of 38.2°C., blood pressure 120/68, and pulse 80. A livedo reticularis pattern was noted in the skin of both lower extremities, as well as persistent cyanosis and ischemic necrosis of the second and third toes of the left foot. An examination of the lungs, heart, and abdomen disclosed nothing remarkable. No lymphadenopathy was observed, and the peripheral pulses were equal. The proximal and distal muscles were tender to palpation, but there was no evidence of focal weakness. Slight diminution in vibration and position sense was present in both feet.

Laboratory findings included hematocrit 33, with normochromic normocytic indices, a reticulocyte count of 0.8 percent, and a white blood-cell count of 12,000 to 14,000 per cubic millimeters, with 7 percent eosinophils. Sedimentation rate was 115 mm. per hour. Urinalysis findings showed microscopic hematuria without any cellular casts; prior to admission, the findings had been normal. The serum creatinine was 1.2 mg. per deciliter, and the multichannel chemistry screening findings were normal, except for an elevated alkaline phosphatase of 180 to 331 I.U. per liter. The serum protein electrophoresis tested out normal, and no cryoglobulins were detected. Test findings for hepatitis B surface antigen and antibody were normal, as were those for rheumatoid factor and antinuclear antibodies. Total hemolytic complement activity and C′3 and C′4 complement component levels in the serum were in the normal range. Several blood and urine cultures were negative for bacteria.

An intravenous pyelogram revealed a large left parapelvic intrarenal mass, which proved on sonography to be a solid tumor. A renal angiogram revealed a vascular tumor in the left kidney. No evidence of vasculitis was seen in the renal blood vessels. Computerized tomography and ^{199}technetium bone, brain, and liver scans revealed no evidence of lymphadenopathy or metastatic disease. A left radical nephrectomy was performed on the thirteenth hospital day. Pathologic examination disclosed a large, solid tumor adherent to the capsule. Microscopic examination revealed a uniform population of large cells with eosinophilic granular cytoplasm and tubule formation characteristic of a renal oncocytoma (Fig. 1A). There were some areas of necrosis noted within the tumor.

An active necrotizing vasculitis of the small- and medium-sized arteries was seen in the perinephric adipose tissue (Fig. 1B). Immediately after surgery the patient was noted to have a diffuse erythematous macular and urticarial eruption as well as a marked accentuation of his livedo reticularis pattern; this disappeared within 48 hours. Renin and prerenin levels were measured in plasma from the left renal vein obtained at the time of surgery and were found to be normal. His subsequent postoperative course was one of gradual improvement of all physical and

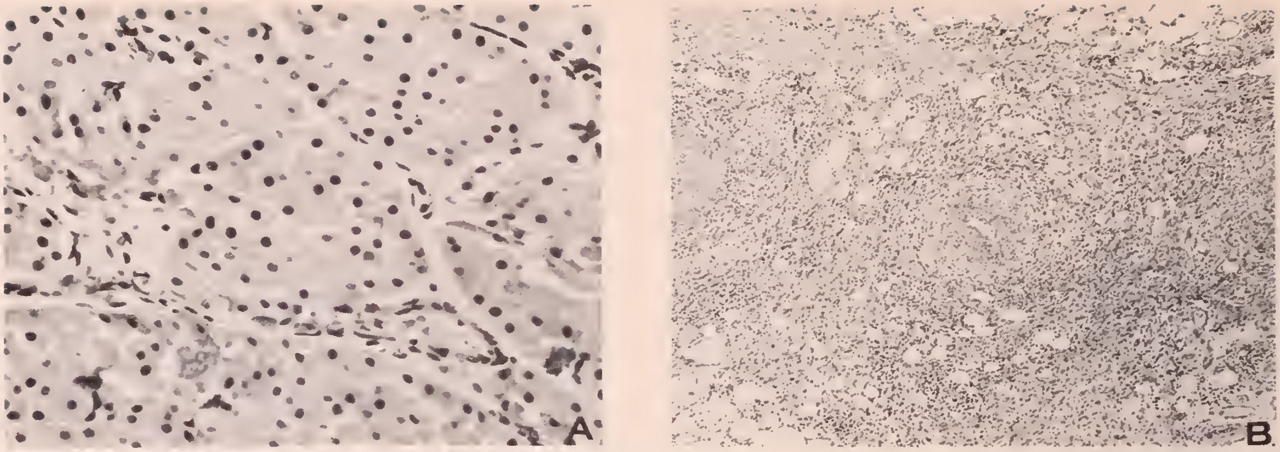

FIGURE 1. Photomicrographs. (A) Oncocytoma. Except for small foci of necrosis, tumor was histologically uniform; only constituent tumor cell was oncocyte, with its abundant, granular, eosinophilic cytoplasm, and regular, round nuclei (hematoxylin and eosin stain, original magnification × 350). (B) Perirenal vasculitis. Small arteries in perinephric tissue show segmented arteritis with granulomatous inflammatory infiltrate and focal fibrinoid necrosis; inflammation extends to involve perivascular tissue as well (hematoxylin and eosin stain, original magnification × 150).

serologic abnormalities. When seen 16 months later, he was entirely free of any symptoms and his blood count, serum chemistry, and urinalyses test results were normal.

Comment

Renal oncocytoma is an apparently benign renal tumor which until recently received little attention in the English literature. In 1976 Klein and Valensi[1] emphasized the renal tubular origin and the benign nature of this tumor in their report of 4 cases and a review of 10 others. Subsequent articles have added information on the pathologic and angiographic characteristics of renal oncocytomas.[2–6] Neither local recurrences nor distant metastases of renal oncocytomas have been reported; however, a recent report suggests that some of these tumors may be locally invasive with infiltration of the perinephric adipose tissue.[7] Of the 29 reported cases, most have occurred in the New York City metropolitan area in the past decade.

Oncocytomas are usually asymptomatic and are discovered either by finding a mass in the flank or, serendipitously, during the investigation of an unrelated condition. In contrast, hypernephroma usually is symptomatic, with flank pain, hematuria, and abdominal mass, and is accompanied frequently by constitutional symptoms. In fact, hypernephroma is often referred to as the "internist's tumor" because the lesion is frequently diagnosed from systemic rather than from urologic manifestations, even in the absence of metastases.[8]

Unlike other previously reported cases of renal oncocytoma, our patient had a histologically proved systemic vasculitis, which was manifested as fever, drenching sweats, intense myalgias, marked weakness, weight loss, cyanosis of the toes progressing to ischemic necrosis, Raynaud's phenomenon, leukocytosis, mild anemia, and markedly elevated sedimentation rate. There were no symptoms referable to the urinary tract, and only after a diligent search was the tumor discovered. Vasculitis was then confirmed histologically. The pathologic description of the renal tumor was typical of oncocytoma. In addition, some necrosis secondary to the vasculitis was present. Although cause and effect have not been proved, the association of vasculitis and oncocytoma in this patient would appear to be more than coincidental. There was marked flare in the vasculitis immediately after manipulation of the tumor during surgery, and all manifestations of vasculitis have disappeared without therapy since the removal of the tumor 16 months ago.

A computer-assisted literature search revealed that the only other type of benign tumor associated with vasculitis is necrotizing cardiac myxoma. Buchanan et al.[9] described a 42-year-old woman who had a low-grade fever, tender cutaneous papules, myalgias and amaurosis fugax, an elevated sedimentation rate, and hypergammaglobulinemia for several months before a left atrial myxoma was discovered. Although vasculitis was suspected, no histologic evidence was reported. Complete recovery followed excision of the tumor. The authors point out that half the reviewed cases had systemic rather than obstructive cardiac symptoms. Huston et al.[10] report the case of a 38-year-old man with myalgias, hemorrhagic rashes, and Raynaud's syndrome, all of which preceded the discovery of a left atrial myxoma by 14 months. The patient recovered completely after removal of the tumor. Although the muscle biopsy was originally interpreted as a primary vasculitis, microscopic tumor emboli were seen on review. Both studies emphasize the importance of searching for myxoma in cases with a clinical picture resembling vasculitis despite the paucity of findings referable to the cardiovascular system. In our patient, no tumor emboli were found after careful histologic examination. This suggests that a humoral mechanism was responsible for the vasculitis.

Hypernephroma is among the malignant tumors associated with a necrotizing vasculitis. Andrasch et al.[11] report a case of vasculitis accompanying a hypernephroma, with recovery following nephrectomy.

In addition to necrotizing vasculitis, other systemic inflammatory syndromes have been associated with various malignant conditions. Marcus and Grayzel[12] reported the case of a 21-year-old woman whose laboratory test findings were consistent with systemic lupus erythematosus; a hypernephroma was discovered during the investigation for hypertension. Following nephrectomy, all findings reverted to normal and have remained so for a follow-up period of six years. Another example of malignant conditions associated with a systemic inflammatory disorder was reported by Simon and Ford.[13] In their case, a 76-year-old woman had progressive arthritis associated with a rising titer of rheumatoid factor; she had a complete remission of her symptoms and laboratory abnormalities on resection of a carcinoma of the cecum. They reviewed 11 other cases of malignant tumor associated with rheumatoid-like arthritis, all of which underwent remission with tumor control. It appears that both benign and malignant tumors may initially appear to be symptomatic of a systemic inflammatory syndrome.

Summary

We have reported the case of a patient with systemic necrotizing vasculitis who was found to have a renal oncocytoma. After surgical removal of the benign tumor, the patient's vasculitis rapidly and completely remitted and he has remained well for over one year. The relationship between benign and malignant tumors and systemic inflammatory reactions has been briefly reviewed in this article.

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Air Ambulance Guidelines published by AMA and Department of Transportation

Need for standardized information on air ambulance services and greater knowledge of high altitude flight's effect on serious medical conditions have prompted the first printing of *Air Ambulance Guidelines*.

Produced jointly by the American Medical Association's Commission on Emergency Medical Services and the U.S. Department of Transportation, *Guidelines* is available from the National Highway Traffic Safety Administration.

Guidelines, with an initial press run of 18,000, attempts to provide both physician and air ambulance operator with medical factors to consider when planning air transportation of the seriously ill or injured.

The Commission's Air Emergency Task Force, chaired by Willis A. Wingert, Jr., M.D., a former flight surgeon, prepared *Guidelines* with the assistance of the Department of Transportation.

Complimentary copies can be obtained by writing General Service Division, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, D.C. 20590.

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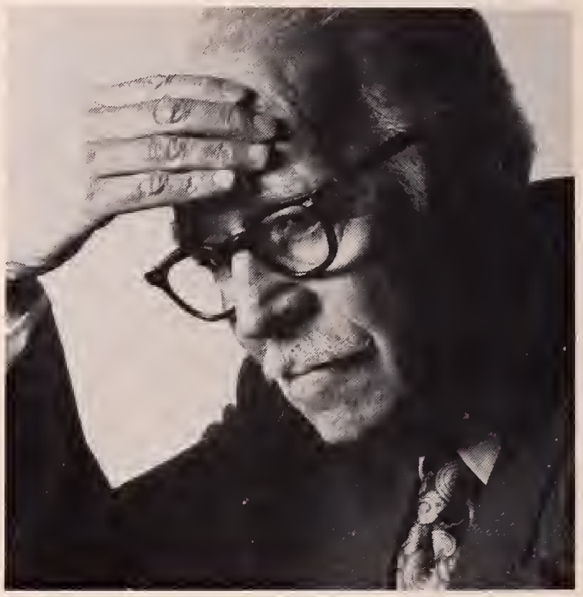

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CONTRAINDICATION: Idiosyncrasy to this drug.

WARNINGS: Data supporting the use of nitrites during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety.

PRECAUTIONS: Use with caution in patients with glaucoma. Tolerance to this drug, and cross-tolerance to other nitrates and nitrites may occur.

ADVERSE REACTIONS: Cutaneous vasodilation with flushing. Headache may commonly occur, and may be both severe and persistent. Transient dizziness and weakness, in addition to other signs of cerebral ischemia associated with postural hypotension may occasionally be seen. ISO-BID can act as a physiological antagonist to norepinephrine, histamine, acetylcholine and many other medications. An occasional patient may show marked sensitivity to the hypotensive effects of nitrite; severe responses (nausea, vomiting, weakness, restlessness, pallor, excessive sweating and collapse) can occur, even with the usual therapeutic dosage; alcohol may enhance this effect. A drug rash and/or exfoliative dermatitis is occasionally seen.

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Beta Thalassemia

*Spinal cord compression**

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Extramedullary hematopoiesis has been described in association with numerous diseases as well as in an idiopathic form. The sites in which such foci of hematopoiesis are usually found include organs that are physiologically hematopoietic during embryonic life, namely, liver and spleen. On occasion, hematopoietic tissue is found in other areas where they may simulate tumor masses or cause pressure symptoms. Prompt recognition of early symptoms accompanied by removal of these masses becomes imperative if irreversible damage to the organs is to be avoided. We recently encountered a patient with β(Beta)-thalassemia in whom paraplegia developed as a result of extradural compression by extramedullary hematopoietic tissue.

Case report

A 17-year-old Afro-American male was first seen at Brookdale Hospital Medical Center in May, 1975, because of progressive weakness of both legs associated with numbness in the lower half of the body. The symptoms started six months previously, when he began to experience difficulty in running, and progressed until three weeks prior to admission when he was unable to walk without support. Five years earlier, he had been found to have an enlarged spleen, but no further information had been given to him at that time. There were no other illnesses, and he had not required blood transfusions at any time in the past. His parents and siblings (two brothers and one sister) were alive and healthy, with no record of any blood dyscrasias.

Physical examination revealed a well-built, well-nourished male with scleral icterus. His liver was enlarged with a span of 14 cm., and the lower edge of the spleen was felt 5 cm. below the left costal margin. Neurologic examination revealed a grade II/VI muscle power with increased tone and ankle clonus in both lower extremities. Ankle jerks and knee jerks were increased bilaterally, and there was a loss of sensation to pinprick and light touch extending from the costal margin downward. Babinski's reflex was present, but there were no other abnormal findings.

Laboratory studies showed hemoglobin 10.8 Gm. per 100 ml., hematocrit 36, platelet count 104,000 per cubic millimeter, reticulocyte count 2.2 percent, and a white blood-cell count of 7,750 per cubic millimeter. The differential white blood-cell count was normal, but the blood smear showed 23 nucleated red blood cells per 100 white blood cells. There was moderate anisocytosis and poikilocytosis with target cells and Howell-Jolly bodies. Coagulation test findings, including partial thromboplastin time (PTT), prothrombin time (PT), thrombin time, paracoagulation, and fibrinolysis, were all within normal limits; red cell G-6-PD (glucose-6-phosphate dehydrogenase) was absent. Other test results: sickle cell preparation was negative, as was Coombs' antiglobulin test; iron was 125 mg., iron-binding capacity 300 mg., blood urea nitrogen (BUN) 12 mg., serum creatinine 1.1 mg., bilirubin 3.2 mg., indirect bilirubin 2.1 mg., and uric acid 11 mg. per 100 ml. Bone marrow aspiration and biopsy showed a richly cellular marrow with erythroid hyperplasia and megaloblastic maturation. Masson trichrome stain and reticulin stain did not show the presence of myelofibrosis. X-ray films of the bones showed marked thinning of the cortex with expansion of the medullary spaces and coarse trabeculation; there were no osteolytic or osteoblastic lesions. Hemoglobin studies of the patient and the parents revealed that both parents had the heterozygous form of thalassemia, with the mother's hemoglobin A_2 and F being 8.1 and 8.1 percent, respectively; the father's was 7.8 and 1.9 percent, respectively (normal hemoglobin A_2 less than 3 mg. and hemoglobin F less than 2 mg. per 100 ml.). The patient's hemoglobin F was 26.2 percent, and on starch-block electrophoresis a single band was seen in the position of hemoglobin A. Further studies could not be performed at that time.

A spinal tap showed xanthochromic fluid with protein of 636 mg., and glucose 60 mg. per 100 ml. without any cells. Manometric findings were consistent with a complete block.

A myelogram showed a lobulated mass extending from T (thoracic vertebra)$_2$ to T_7 (Fig. 1A and B). A decompression laminectomy was performed, and a purple, shiny, nonpulsatile mass was seen extending from T_2 to T_7, posterior to, but separate from, the

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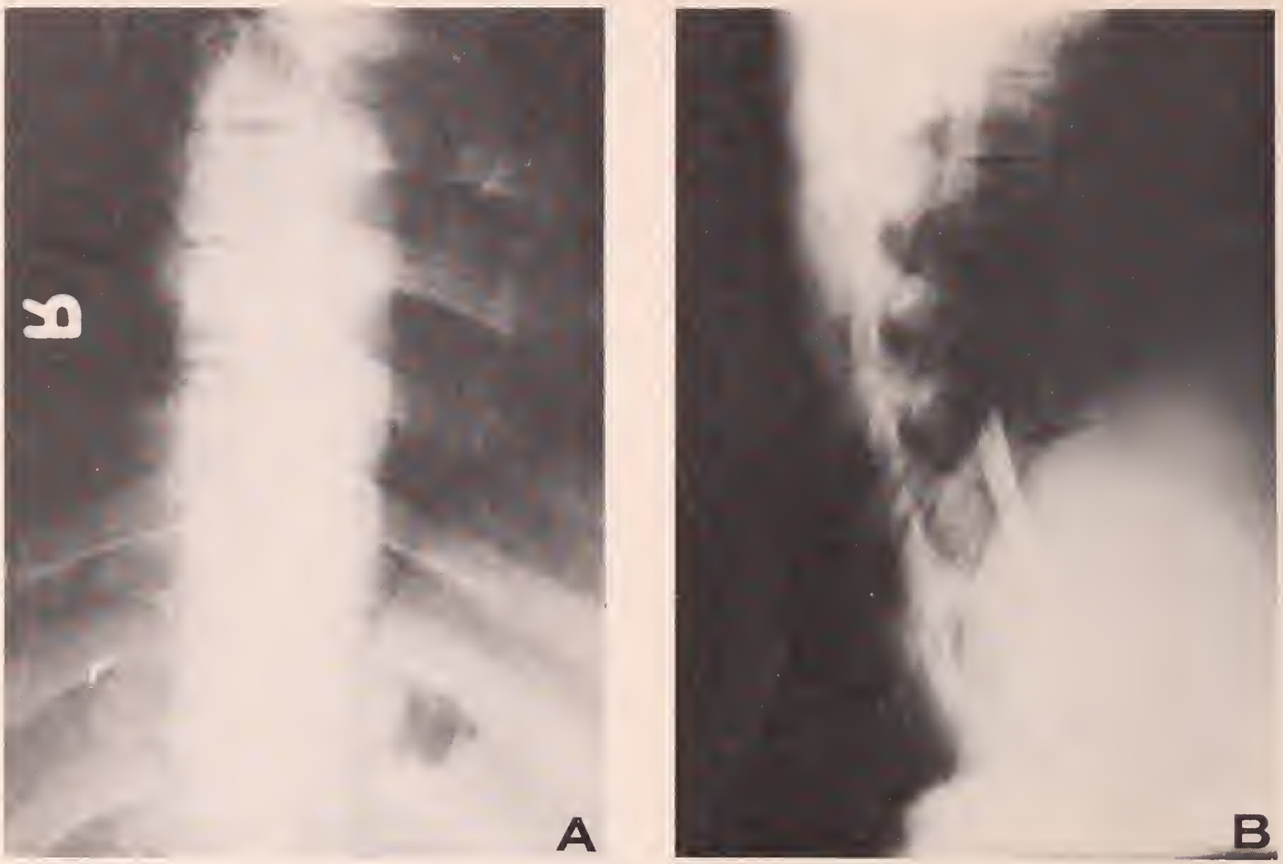

FIGURE 1. (A) and (B) Preoperative myelograms showing complete block at seventh thoracic vertebra.

spinal cord; this was removed piecemeal. Bleeding from the hyperplastic bone was profuse but controllable. Following surgery, there was no improvement in his neurologic status, and for the next 18 months the patient received rehabilitation therapy. His course was complicated by a neurogenic bladder, recurrent urinary tract infections, and decubitus ulcers, but he finally gained nearly complete recovery. At present, his symptoms are slight stiffness in his left leg, but he is able to perform normal activities. Histologic findings of the epidural mass showed that it consisted entirely of hematopoietic tissue with erythroid hyperplasia (Fig. 2).

Comment

One of the less-common complications of chronic hemolytic anemia is the development of extramedullary hematopoietic masses in confined spaces of the body, leading to damage of the adjacent organs by mass effect. Such problems have been described in the mediastinum, falx cerebri, and in the spinal cord. Eight other patients have been described in whom β thalassemia resulted in spinal cord compression due to extramedullary hematopoietic tumors.[1–9] A comparison of these eight patients and our patient (case 9) reveals several similarities (Table I). Tumorous myeloid metaplasia can occur in either heterozygous or homozygous thalassemia states and has been noted in patients whose ages varied from 4 to 60 years. The severity of hemolysis as judged by reticulocyte counts and transfusion requirements was not excessive in four of the five patients who had hemoglobins of between 8 and 10 Gm. per 100 ml. In one of these patients, anemia was first noted at the age of 14 years, and blood transfusions were not required to maintain a satisfactory hemoglobin level. Similarly, in our patient anemia was detected at the

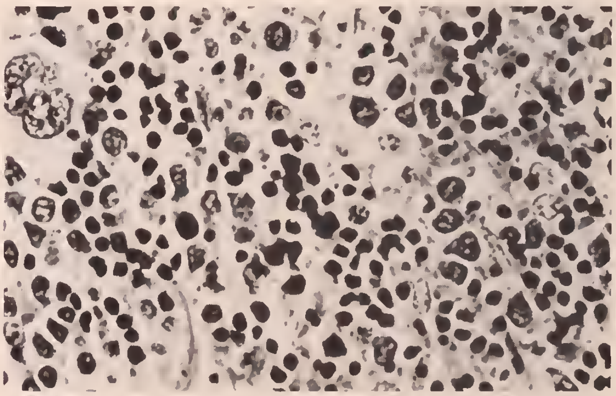

FIGURE 2. Markedly hypercellular hematopoietic tissue that includes megakaryocytic, erythrocytic, and myelocytic series.

TABLE I. Reported cases of spinal cord compression in β thalassemia

Case Number	Sex/Age/Race	Genetics	Duration of Neurologic Symptoms	Extent of Cord	Relation of Spinal Cord	Transfusions	Treatment	Results
1[1]	M/21/White	Thalassemia major	N.A.	T_8, L_3*	Anterior	Several	Autopsy	. . .
2[2]	M/40/Negro	Thalassemia intermedia	2 months	T_5, T_8	Posterior	Infrequent	Surgery	Complete recovery
3[3]	M/26/White	Probable heterozygous	16 months	T_1, T_9	Posterior	Infrequent	Surgery	Improvement
4[4]	F/4/White	Probable thalassemia major	No neurology	T_8, T_{12}	N.A.	N.A.	Autopsy	. . .
5[5]	F/23/White	Thalassemia intermedia	1 year	T_9	Anterior	Infrequent	Radiotherapy	. . .
6[6]	M/42/Negro	Thalassemia major	N.A.	T_5, T_8	Posterior	N.A.	Surgery, radio therapy	Complete recovery
7[7]	M/47/Negro	Thalassemia intermedia	2 months	T_4, T_8	N.A.	Infrequent	Surgery, radio therapy	Complete recovery
8[8]	N.A.	Thalassemia minor	. . .	N.A.	N.A.	N.A.	Radiotherapy	Improvement
9	M/17/Negro	Thalassemia intermedia	5 months	T_2, T_7	Posterior	Infrequent	Surgery	Improvement

N.A. = Data not available from case histories.

* Third lumbar vertebra.

age of 12, and blood transfusions had not been required at any time. The history of these patients suggests that it is the relatively compensated patient who is prone to develop this complication. It is well known that homozygous β thalassemia in patients of African descent may be of a milder form when compared with the non-African patients. This may account for the preponderance of patients of African descent as shown in Table I. The role of coexistent G-6-PD deficiency is difficult to define since in our patient there was no history of drug-related or otherwise episodic hemolysis. There is no mention of coexisting enzyme deficiency in the eight patients reported in the literature.

All the patients showed that this complication involved the thoracic segment of the spinal cord, with only one patient showing the extension of the thoracic lesion to the lumbar region. Other hematologic diseases in which there was spinal cord compression by extramedullary hematopoietic tissue (namely, hereditary spherocytosis, sickle cell anemia, and agnogenic myeloid metaplasia) also show similar localization in the thoracic vertebrae.[1,7] The reason for this is not clear. The relationship of the hematopoietic tissue with the exact surface of spinal cord varies. Some patients had masses anterior to the cord, others posterior, and some had a combination of both.[2] A number of theories have been proposed to explain the origin of the hematopoietic tissue, including emboli from distant sites, direct extension to the epidural space from the marrow cavity of the surrounding bone, or stimulation of an embryonic rest of multipotential hematopoietic stem cells in the epidural space.[6] With the advent of computerized axial tomography (CAT) scanning of the vertebrae, it may be possible to substantiate one or the other mechanism, namely, by demonstrating actual breakdown of bone and continuity of the metaplastic tissue with the vertebral marrow.

It has been recommended that in view of the danger of bleeding from the hematopoietic tissue and the special features of this complication (namely, a thoracic cord compression by a smooth mass in a patient with chronic hemolytic anemia), one should be able to initiate radiotherapy without histologic confirmation.[5,9] However, only two patients in this series had radiotherapy administered without histologic proof. Of the remaining patients, five had a surgical procedure and radiotherapy and none was reported to have had any bleeding complications. The urgency of recognition and the treatment of this complication are evident from the results obtained with these patients. Complete recovery is seen in those patients whose duration of neurologic symptoms was less than 2 months, although marked improvement was still seen in the patient who was treated 16 months after the onset of neurologic symptoms. Our patient had experienced minimum neurologic symptoms six months earlier. The protracted rehabilitation period of 18 months might well have been avoided, if this diagnosis had been suspected earlier.

Summary

Spinal cord compression by extradural hematopoietic tissue occurred in a 17-year-old patient with thalassemia intermedia. Treatment with both surgical decompression and physiotherapy resulted in complete functional recovery. A review of the clinical and radiologic data of the other eight patients reported in the literature reveal certain common features. The need for prompt recognition and

treatment is evident from the results obtained with these patients.

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Radiation treatment may replace breast removal

A group of radiation therapists are becoming increasingly active in recommending to women with early breast cancer that they consider undergoing radiation therapy in conjunction with simple surgery to remove only the cancerous lump, rather than the entire breast.

Radiation therapy combined with surgery to remove the lump can achieve control rates that are comparable with those obtained by modified or radical mastectomy, declares Luther W. Brady, M.D., chairman of the Department of Radiation Therapy and Nuclear Medicine, Hahnemann Medical College, Philadelphia.

The status of this procedure in treating early breast cancer is reviewed in the Medical News Section of the February 20 Journal of the American Medical Association.

The combination surgery-radiation technique leaves the patient with two intact and cosmetically acceptable breasts, Dr. Brady emphasizes.

The acceptance of such breast-saving treatment has become even more important with the increase in detection of breast cancer at an early stage, adds Dr. Brady. He cites data showing that the proportion of women whose disease was diagnosed prior to spreading to other parts of the body increased from 72 percent to 88 percent between 1970 and 1976.

The procedure is to remove the tumor (lumpectomy) and study the nearby lymph nodes for the presence of cancer. Then, a week or so later, irradiation of the breast is begun, continuing over a period of weeks. The patient may also be given anticancer drugs.

In one recent study of 293 patients, 71 percent of stage I patients and about half of stage II patients (signifying early and early intermediate stages of the cancer's growth) were alive and free of the disease ten years later. These figures compare with the 60 percent and 40 percent survival figures obtained with extensive surgery.

In writing of the new procedure among others, one research team declares: "The pyschosexual advantages of any therapy that preserves the breast weighed heavily in our conclusion that primary radiotherapy is an acceptable alternative to mastectomy in many patients." Up to one third of women after mastectomy suffer anxiety, depression, and sexual difficulties.

Hodgkin's Disease

Tracheoesophageal fistula during MOPP chemotherapy

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Either primary or secondary involvement of the esophagus by Hodgkin's disease is rare indeed.[1-7] As recently as 1971, Strauch[8] reported only 18 cases in the world literature. Fistulization between the esophagus and the tracheobronchial tree in Hodgkin's disease, either spontaneously or induced by treatment, is also exceedingly uncommon.[4,7,9-13]

We report the twelfth case in the literature of TE (tracheoesophageal) fistula occurring one year following mantle radiotherapy and during the first cycle of MOPP* chemotherapy in a patient with recurrent mediastinal Hodgkin's disease.

Review of literature

In 1972, Renzi and Lesage[11] reported a case of endobronchial Hodgkin's disease of the left main-stem bronchus which fistulized into the esophagus four years following mantle radiotherapy to the mediastinum. In 1973, Morrison et al.[7] reported one case of Hodgkin's disease, with a sinus tract in the upper esophagus extending into the mediastinal nodes in conjunction with the left main-stem bronchus involvement, which responded to radiotherapy.

In 1975, Lambert[12] reported a case of Hodgkin's disease in which a TE fistula occurred six weeks following radiotherapy to the mediastinum and which was successfully treated surgically.

In 1979, Katin, Brereton, and Michaelis[13] reviewed 10 cases of esophageal-pulmonary fistulas in Hodgkin's disease; they reported the eleventh case of Hodgkin's disease with esophageal-bronchial fistula, with a right lower-lobe pneumonia three months following completion of six courses of MOPP* chemotherapy, which evolved into a lung abscess concurrent with mantle radiotherapy. The patient was treated surgically and no evidence of Hodgkin's disease was found after pneumonectomy.

Case report

A 30-year-old female had asymptomatic clinical, Stage IIA, Hodgkin's disease in July, 1978. In the prior June, the patient had noted an enlarging right supraclavicular lymph node. At the end of June, 1981, chest x-ray film findings revealed a widened mediastinum with an anterior mediastinal mass. A lymph-node biopsy from the right supraclavicular mass revealed Hodgkin's disease of nodular sclerosis type. The rest of the physical examination disclosed nothing remarkable.

Gallium scintiscan and lymphangiogram findings were within normal limits. A bone-marrow aspiration and biopsy showed no evidence of Hodgkin's disease. The patient underwent a staging laparotomy and splenectomy on July 25, 1978. All biopsies, including wedge biopsies of the liver, the removed spleen, and nodes along the para-aortic area, were negative for evidence of Hodgkin's disease.

The patient received 3,400 rad of cobalt^{60} radiotherapy in a mantle distribution over the next four weeks; this resulted in the disappearance of the supraclavicular and mediastinal masses, and no further therapy was given. She was asymptomatic until August 1, 1979, when she developed an upper respiratory infection of nonspecific nature associated with a dry nonproductive cough, intermittent wheezing, and shortness of breath on exertion. In spite of tetracycline, these symptoms deteriorated over a three-week period.

On August 29, 1979, firm rubbery nodes in the left supraclavicular and left cervical area were palpated. The nodes extended medially and seemed to be involving the area of the thyroid gland as well as the trachea, which was deviated to the right and not fixed. Chest x-ray film findings revealed a small, left pleural effusion and a nodular infiltrate in the right midlung field. It was felt that the patient was suffering from a recurrence of the Hodgkin's disease with impending tracheal obstruction and was in urgent need of chemotherapy.

Hemoglobin was 13.5 Gm. per deciliter, and white blood-cell count 14,600 and platelets 300,000 per microliter. Dexamethasone acetate (Decadron), 8 mg. intramuscularly, vincristine sulfate (Oncovin), 2 mg. IV (intravenously), nitrogen mustard, 8 mg. IV, prednisone, 60 mg. per day, and procarbazine hy-

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* Nitrogen mustard, vincristine sulfate (Oncovin), prednisone, procarbazine hydrochloride.

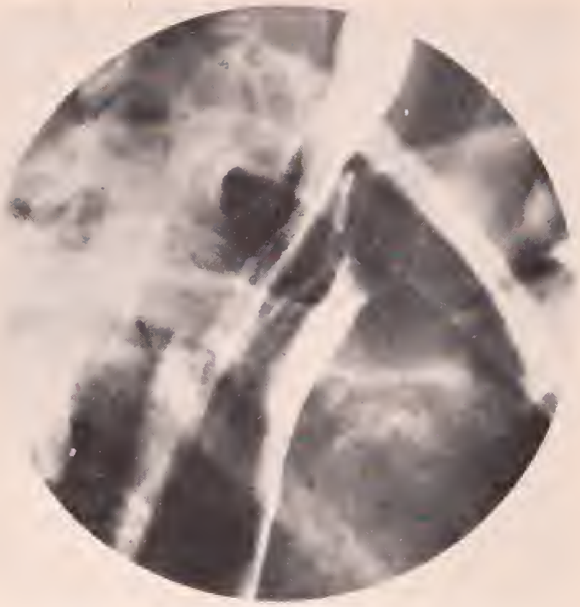

FIGURE 1. Barium swallow showing TE fistula.

drochloride (Matulane), 150 mg. per day, orally, were given. An examination one week later indicated that the patient had improved symptomatically, and that there was shrinkage of the left supraclavicular mass. The left pleural effusion and right midlung infiltrate had resolved. On September 5, 1979, the patient received vincristine sulfate, 1 mg., and nitrogen mustard, 8 mg. IV. Two days later she complained of increasing shortness of breath, a choking feeling, and a metallic cough following the drinking of fluids. She was admitted to the emergency service at Mount Sinai Hospital with a clinical diagnosis of TE fistula; this was proved by a barium swallow on the night of admission (Fig. 1).

The following day, September 8, 1979, the patient was surgically explored and found to have Hodgkin's disease of the neck, invading and perforating the junction between the esophagus and trachea at the level of the cricopharyngeus. A cervical esophagostomy was performed, and the TE fistula was oversewn, utilizing the left sternomastoid muscle.

In addition, a tube gastrostomy was performed during which rubbery lymph nodes were felt in the left upper quadrant at the site of the previous splenectomy. The patient's course was sluggish, but improved with gradual ability to tolerate the gastrostomy feedings, and resolution of her cough.

Because of the relatively clear appearance of the right side of the abdomen, it was felt that the patient might be reconstructed with an ileocolic interposition, and, to this purpose, on November 6, 1979, she was again explored. At surgery, a very long ileal segment, but a rather short cecal segment with evidence of a malrotation at the site of a previous appendectomy, was identified. The ileum, along with a very long ileocolic artery, was freed and anastomosed to the proximal esophagus, and an ileal left transverse colostomy was performed. Endoscopy on November 11, 1979, demonstrated a wide-open pylorus through the gastrostomy, a normal colon, and a normal ileum with the ability to pass the pediatric endoscope in retrograde fashion through the stomach, the gastrostomy, the ileum, and on into the neck. The patient maintained her weight for two months and was discharged. During this period she received two cycles of ABVD* chemotherapy.

Her last six weeks of life were complicated by development of pericardial effusion, necessitating a pericardial window, dysphagia due to ileal-loop obstruction by tumor, shortness of breath from superior vena cava syndrome, pneumonia, and respiratory failure; death occurred on February 18, 1980.

Postmortem findings

Postmortem examination revealed extensive Hodgkin's disease (nodular sclerosis in type) involving mediastinal, intra-abdominal, and retroperitoneal lymph nodes, pleura, pericardium, chest wall, lungs, diaphragm, and liver. There was encasement of the superior vena cava with tumor with intravascular thrombosis, but no evidence of vascular invasion by Hodgkin's tissue. The mediastinal Hodgkin's tissue encased the ileal loop interposition. The TE fistulization was documented; however, no Hodgkin's tissue was present at the exact site of the fistulous connection.

Comment

The diagnosis of esophagotracheal or esophagobronchial fistula should be suspected in any patient complaining of: (1) paroxysms of coughing, (2) dyspnea, or (3) a sudden strangling sensation following the ingestion of food or drink.

We suggest that the mechanism of fistula formation in our patient was rapid necrosis of mediastinal Hodgkin's disease during combination chemotherapy in a previously irradiated area. As far as we can ascertain, this is the first case reported in the literature in which fistula formation occurred so acutely following combination chemotherapy. Presumably, the Hodgkin's-involved masses invaded the mediastinal structures, and rapid lysis of the tumor by chemotherapy in the setting of previous radiotherapy induced the fistulization.

It should be noted that this ileal interposition was unique since there is no prior example of a planned ileal interposition between a cervical and an abdominal nature. All prior anastomoses described in the literature have utilized colonic, gastric, or ileocolic segments with the exception of jejunal segments brought substernally by Yudin[14] in Russia.

The unique feature in this case, making it possible to bring the ileum up, was the size and length of a large aberrant ileocolic vessel, perhaps related to a secondary malrotation on a short cecum. However, this anatomic variation fitted well with the require-

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* Doxorubicin hydrochloride (Adriamycin), bleomycin sulfate, vinblistine sulfate (Velban), dacarbazine.

ments of an interposition segment for the replacement of esophagus, since the ileum placed in an isoperistaltic fashion functions with peristalsis and acts as an effective antireflux mechanism; this should be given consideration when any interpositive procedure is required.

The unanswered questions in this case are: (1) what is the exact mechanism of the TE fistula formation, and (2) why do such cases of Stage IIA, Hodgkin's disease, nodular sclerosis in type, fail on conventional anti-Hodgkin's therapy?

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Exercise program enhances recovery from heart attack

Regular vigorous exercise can improve the health of many individuals who have had heart attacks, the American Medical Association has declared.

Exercise programs are now regularly prescribed for many patients with heart disease, and thus the AMA's Council on Scientific Affairs has conducted a study of the pros and cons of this treatment. Three advisory panels of experts in various aspects of exercise rehabilitation advised the AMA Council in preparing the statement, which appears in the April 10 Journal of the American Medical Association.

Physician direction of exercise programs is critical to the proper use of these services for heart patients, the AMA said. Exercise testing is important in prescribing programs, and in monitoring progress during the months of training. Exercise has definitely been shown to improve the health of the heart patient, but has not yet been shown to improve survival.

As the post-heart attack individual gains strength and endurance through regular exercise, there is psychological improvement in self-image and in overcoming the depression that frequently follows heart attack, the AMA said.

Exercise should use large muscle groups, should be performed at least three times each week, and should be kept up for 30 to 45 minutes at a vigorous pace. The patient should push himself up to 50 to 75 percent of maximum physical potential. Less intense exercise might help, but may be less effective.

Post-heart attack exercise programs are not for everyone, the AMA stressed. Some types of heart disease would be made worse by vigorous activity, and thus careful diagnosis and prescription of activity by the physician is highly important.

AMA staff directors for the study were Richard J. Jones, M.D., director of the AMA's Division of Scientific Activities, and William E. Burnette of the AMA Department of Health Education. Rogers J. Smith, M.D., of Portland Oregon, is Council chairman.

Meningococcal Septic Arthritis in an Infant

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Septic arthritis occurs relatively commonly in the pediatric age group and is most frequently seen within the first two years of life. It is usually blood-borne and associated with an upper respiratory tract infection or is a direct extension from an overlying skin infection. Although varying in different age groups, the organism most commonly responsible for septic arthritis is *Staphylococcus aureus*. However, in children six months to two years of age type b *Hemophilus influenzae* is the predominant organism.[1]

In 1964, Pinals and Ropes[2] reported 11 cases of meningococcal arthritis with accompanying meningitis in all but one patient. This single patient was a 13-year-old boy who was successfully treated with sulfa drugs in 1943. Nelson[1] in 1972 in his review article cited the incidence of *Neisseria meningitidis* as an etiologic agent for septic arthritis as 1.8 percent in the age group up to 15 years. In a prior article in 1966, Nelson and Koontz[3] reported two patients below the age of two years with meningococcal arthritis. One of these patients had associated meningitis while the other had neither documented meningococcemia nor meningitis. (No details were reported concerning the latter patient.) In this article we present a seven-month-old male infant with isolated acute meningococcal septic arthritis.

Case report

A seven-month-old black male infant was admitted with a tender, swollen right ankle of 16 hours duration. The infant had suffered an upper respiratory tract infection for three days and had been pyrectic for two days prior to admission. He developed a pruritic urticarial skin rash over his face, abdomen, and extremities seven days prior to his hospitalization for which he had been treated with oral antihistamines. There was no prior history of trauma, pertinent antecedant infections, or significant past history. The family history was negative for any infection.

Physical examination showed a well developed, well nourished child in no acute distress. He did not appear to be toxic. He was in the seventy-fifth percentile for weight (8.8 kg.), height (71 cm.), and head circumference (45 cm.). His vital signs were: temperature 39.2°C., heart rate 144 per minute, respiratory rate 30 per minute, and blood pressure 90/60 mm. Hg. The child was found to be normal except for several scattered urticarial lesions over his abdomen and right lower extremity accompanied by an erythematous, swollen, and tender right ankle.

Laboratory results. A complete blood count within the first 12 hours after admission showed: hemoglobin 10.2 mg. per deciliter; hematocrit 29.4; white blood cell count 16,700 per cubic millimeter with 39 percent polymorphonuclear cells, 50 percent lymphocytes, 10 percent monocytes, and 1 percent eosinophils. Platelets were adequate in number. Sedimentation rate was 37 mm. per hour. A bone scan of the right ankle was compatible with septic arthritis and an aspiration of the joint revealed cloudy fluid that gave negative results on Gram's stain. Cultures of the aspirated joint fluid grew *N. meningitidis*, type Y, but blood and throat cultures were sterile.

Results of the following laboratory tests were within normal limits: chest x-ray, x-ray of right ankle, urinalysis, urine culture, serum electrolytes, blood urea nitrogen, creatinine, bleeding and clotting time, sickle cell preparation, and reticulocyte count. The serum immunoglobulin levels were: IgG 800 mg. per deciliter (normal 300–1,200), IgM 112 mg. per deciliter (normal 24–167), and IgA 55 mg. per deciliter (normal 10–87). The serum complement levels were: C'_3 (third component of complement) 130 mg. per deciliter (normal 125–170), C'_4 20 mg. per deciliter (normal 14–51). Qualitative C'_6 was within normal limits.

Hospital course. Following the child's initial work-up, the diagnosis of septic arthritis was suspected and the infant was begun on broad-spectrum intravenous antibiotics. The antibiotics were changed to intravenous penicillin G when the culture from the joint fluid grew *N. meningitidis*. Surgical incision and drainage of the ankle joint were performed and the joint was continuously irrigated for the next 72 hours. The remainder of the hospital course was unremarkable, with the infant becoming afebrile within 24 hours after onset of therapy. Parenteral penicillin was continued for the next four weeks during which time the infant also received physical therapy to maintain adequate joint mobility. At discharge, the infant had full range of motion of his right ankle. Importantly, the throat cultures of the mother, one sibling, and a cousin were positive for *N. meningitidis*, type Y. They received oral rifampin therapy for two days and remained asymptomatic.

Follow-up in outpatient clinic. The infant remained asymptomatic. The right ankle joint remained normal with full range of movement. The infant suffered from two episodes of viral upper respiratory tract infections and one episode of *Salmonella* group D gastroenteritis within the past year. His growth and development were normal at 18 months of age.

Comment

Neisseria meningitidis has been serologically typed as A, B, C, X, Y, and Z on the basis of specific capsular polysaccharides. This organism appears within polymorphonuclear cells as a gram-negative diplococcus when smears are made from the inflammatory exudate of patients. Initially, the organism usually colonizes the throat from where it can enter the bloodstream in susceptible individuals and cause a fulminating disease. It is known to cause illnesses ranging from mild upper respiratory tract infections to meningitis, pericarditis, endocarditis, acute and chronic meningococcemia, pneumonia, vulvovaginitis, and septic arthritis. It is extremely rare for *N. meningitidis* to appear with primary isolated septic arthritis in infants. Opitz[4] recently reported the first case within the past 30 years in the English literature of isolated acute meningococcal arthritis in a five-month-old infant. It is of interest that our patient has many similarities to the case reported by Opitz: both were young infants (five and seven months); both had upper respiratory tract infections preceding the arthritis; both appeared nontoxic and had right ankle involvement associated with negative blood cultures. The significance of these similarities is unknown.

There is a known association of decreased levels of the sixth component of complement with an increased incidence of meningococcal infections.[5] Individuals with this deficiency possess normal complement-mediated opsonization and chemotaxis but lack bactericidal activity. In our patient, the serum complement levels were normal.

The characteristic rash of chronic meningococcemia as described by Leibel, Fangman, and Ostrovsky[6] can be nodular, maculopapular, petechial, or purpuric, but it has also been described as evanescent and nonpruritic, distributed mainly over the trunk and extremities, and waxing and waning with the fever curve. In our patient, the skin rash was urticarial and pruritic and was noted one week before the onset of arthritis.

Arthritis occurs relatively commonly in patients with acute meningococcal infections during the course of therapy, and while there may be a significant joint effusion, the culture of this fluid is usually sterile. Chronic meningococcemia can also be accompanied by arthritis but this rarely occurs in children.

In summary, the phenomenon of acute meningococcal arthritis without meningococcemia or accompanying meningitis is extremely rare in infancy. Only two cases have been reported since 1950. In both reported patients, marked clinical similarities were noted and infection resolved quickly with appropriate antibiotic therapy, without leaving residual joint problems.

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Acute Suppurative Mediastinitis

Rare cause of massive hemoptysis

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Mediastinitis is a rare entity, since the advent of antibiotics has resulted in the prompt treatment of oral and pharyngeal infections. Today, the most common predisposing factors for mediastinitis are esophageal perforations secondary to endoscopy or dilatation and the mediastinotomy incision during open heart surgery.[1] Whenever mediastinitis ensues it is a major medical emergency and often a fatal condition if unrecognized. We report an unusual case of suppurative mediastinitis wherein a mediastinal abscess caused a perforation of both the thoracic aorta and the lung resulting in massive hemoptysis.

Case report

A 58-year-old black male appeared at the emergency department with hemoptysis of three days' duration. About four weeks prior to admission, he experienced increasing weakness, easy fatigability, and mild to moderate fever associated with chills and rigors. During these four weeks he had a cough productive of foul-smelling mucopurulent expectoration, but no chest pain. He also had dysphagia both for solids and liquids. The patient felt weaker when he began to cough up blood, and when the episodes of hemoptysis became more massive, he sought medical advice. The patient's past history revealed chronic obstructive pulmonary disease, pulmonary tuberculosis previously treated with chemotherapy, and alcohol abuse. He had been admitted in January, 1979, for accidental ingestion of ammonia. Endoscopic evaluation of the esophagus at that time revealed a large ulcer approximately 3 cm. below the cricopharyngeal muscle which on biopsy was a squamous cell carcinoma. The patient was treated subsequently with radiation therapy. A barium swallow was performed four months following therapy and demonstrated a 5-cm. mass in the upper esophagus (Fig. 1). The patient had been a heavy smoker all his life and usually consumed one and one-half pints of whiskey daily.

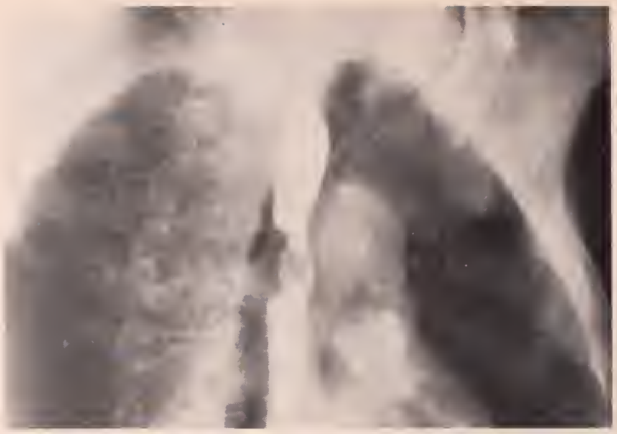

FIGURE 1. Esophagram reveals 5-cm. mass in upper esophagus.

Physical examination on admission revealed a middle-aged, cachetic male who was toxic, febrile, and tachypneic with a respiratory rate of 45 per minute. His voice was husky in quality. Examination of his oral cavity revealed poor hygiene and a putrid odor. He had dental caries and chronic periodontitis. The neck was supple without thyroid enlargement. There was no evidence of superior vena caval obstruction. The chest was resonant in all lung fields. Auscultation demonstrated scattered rhonchi throughout both lung fields, more prominent in the right suprascapular and infraclavicular areas. The cardiac rhythm was rapid, regular, and with normal heart sounds. The remainder of the physical examination was unremarkable.

On admission the patient's chest roentgenogram showed widening of the superior mediastinum with an air fluid level lateral to the location of the original esophageal carcinoma (Fig. 2). There was early consolidation of the anterior segment of the right upper lobe as well as infiltrate in the right lower lobe. Sputum examination was negative for *Mycobacterium tuberculosis*. Gram stain of the sputum showed more than 25 polymorphonuclear cells per high power field with a mixed flora of both gram-positive and gram-negative bacteria. Results of three consecutive blood cultures were negative. Sputum cytology gave negative results. Hemoglobin was 9.3 Gm. per deciliter and the hematocrit was 28.8. He had a leukocytosis with a left shift. Platelets were normal. A metabolic profile revealed hypokalemia, hypoproteinemia, and hypoalbuminemia. Arterial blood gases on room air revealed a pH of 7.5, oxygen pressure of 90 mm. Hg, and carbon dioxide pressure of 22 mm. Hg.

The patient's hospital course was complicated by three major episodes of massive hemoptysis totaling over 600 ml. of blood in a 24-hour period. The patient was treated conservatively with fluids, blood transfusions, and parenteral antibiotics. Nine days following admission, the patient had an episode of massive hemoptysis and expired. Postmortem examination demonstrated a large, thin-walled abscess in the posterior mediastinum communicating with a pulmonary abscess in the posterior segments of both the right upper and lower lobe. This abscess also perforated the thoracic aorta. A large necrotic defect in the posterior wall of the esophagus communicated with the abscess cavity.

Comment

The causes of hemoptysis are legion; at least a hundred are recognized. Mediastinitis is not among these causes.[2] Massive hemoptysis is a potentially lethal complication of many pulmonary diseases. It is defined by the amount of blood expectorated per unit of time and has been defined as 600 ml. or more of blood in either a 24-hour period or a 48-hour period.[3] In most series, massive hemoptysis is associated with tuberculosis, lung abscess, bronchiectasis, or bronchogenic carcinoma, but mediastinitis is not reported to be a cause.[3,4]

The development of mediastinitis begins with the introduction of bacteria into the mediastinum. This occurs under many circumstances, such as the extension of neck infections along fascial planes, perforation of the esophagus as in our case, peritoneal infection spreading through the diaphragmatic hiatal openings or by lymphatics, operative contamination, extension of infection contiguous to the mediastinum, and hematogenous spread. Clinical evaluation is usually helpful. Acute mediastinitis should be suspected whenever there is abrupt onset of severe substernal pain radiating into the neck in one of the previously mentioned settings. There is usually a rapidly rising temperature, chills, and prostration. Dysphagia, odynophagia, and a husky voice may become evident. Physical findings initially may be nonspecific but widening of the usual mediastinal dullness with parasternal rales is suggestive of mediastinitis. Likewise, subcutaneous emphysema in the supraclavicular fossa may be seen. The chest roentgenogram may be helpful if there is a mediastinal mass, mediastinal widening, or air within the mediastinum.

Mediastinitis is a medical emergency and should be treated aggressively once recognized.[5] Every attempt should be made to treat the primary cause if possible. The major aims of treatment are adequate drainage, prevention of continued contamination, and adequate nutrition. Control of sepsis and hypovolemic shock, maintenance of adequate ventilation, and prompt antibiotic therapy constitute the important modes of medical management. Massive hemoptysis itself is a medical emergency requiring prompt treatment aimed at preventing asphyxiation. Medical therapy is often temporizing, consisting of tamponade with a Fogarty catheter or selective intubation with either a Carlen's tube or an endotracheal tube.[2,6] Surgical intervention is frequently indicated in those patients with continued massive bleeding since the mortality rate from hemoptysis is related to the severity of the bleed. Crocco et al.[4] report a high mortality rate—16 of 17 patients expired—in patients bleeding at a rate of

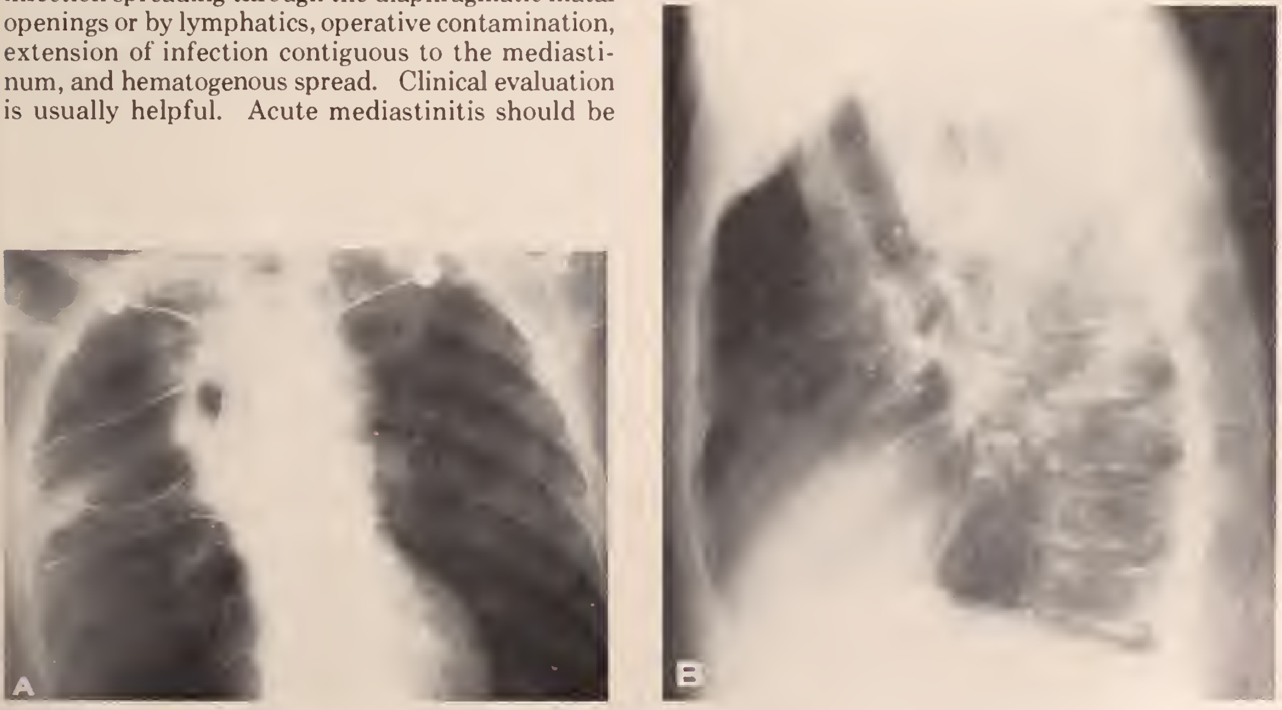

FIGURE 2. Chest roentgenogram. (A) Anteroposterior view revealing widening of the superior mediastinum lateral to location of esophageal carcinoma. (B) Lateral view of chest revealing air fluid level.

600 ml. within 4 hours contrasted with the low mortality—0 of 10 patients expired—in patients bleeding at a rate of 600 ml. within a 16 to 48 hour period. Surgery was not attempted in our patient because of the diagnosis of inoperable malignant tumor.

In conclusion, this case report demonstrates suppurative mediastinitis from an esophageal carcinoma causing massive hemoptysis. Although rare, clinical and roentgenographic features of mediastinal pathology should raise the suspicion of mediastinitis in the appropriate clinical setting. Our patient displayed many of these features, specifically: odynophagia, husky voice, fever with shaking chills, and acute mediastinal widening on chest roentgenogram. His course was complicated by recurrent episodes of massive hemoptysis as a consequence of a mediastinal abscess eroding into the right lung and aorta.

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Nuclear emergency evacuation plan for hospital patients prepared

Areas surrounding nuclear power facilities must recognize the possible extent of a nuclear incident and plan for evacuation of up to 20 miles around, declares a report in the April 24 Journal of the American Medical Association.

The lessons learned during the Three Mile Island episode in Pennsylvania in the spring of 1979 with regard to evacuating patients in hospitals and nursing homes are reported by J. Stanley Smith, Jr., M.D., of the medical command team in Dauphin County, Pennsylvania, and James H. Fisher, the county's medical coordinator.

Three major problems were encountered by the medical leaders in the area in preparing to evacuate some 3,700 patients in hospitals and nursing homes within the risk zone, Dr. Smith, of the Harrisburg, Pennsylvania, Polyclinic Medical Center, says.

These problems were: (1) Communications; (2) Transportation; (3) Manpower.

Communications and reliable information were scarce regarding the status of the nuclear incident and the probability of activating plans to evacuate the hospitals and nursing homes, Dr. Smith reports. The medical leaders depended heavily on network radio and TV reports for news, he says. There was no constant flow of information to the Dauphin County Office of Emergency Preparedness (formerly Civil Defense), Dr. Smith relates.

Finding and enlisting available medical transport vehicles in the area was a major problem, and "We were never sure whether we would get what we needed when we needed it. Furthermore, we estimated that it would take approximately 36 hours to accomplish evacuation of all medical facilities, not the four to eight hours continually quoted by the governor's office."

As word spread of the possible nuclear accident, many individuals began to leave the area. This exodus included medical care personnel, as well as the general public, and staffing of the hospitals and nursing homes became an acute problem, Dr. Smith reports. Hospitals discharged all patients able to leave, accepted only emergency cases, and postponed elective surgery and diagnostic tests. By reducing the patient census by more than 50 percent, the hospitals kept going with the reduced staffs.

The alert lasted for a full week, until it was determined that the emergency was over. People began returning to their homes and a normal pattern gradually was resumed.

In response to the nuclear incident at Three Mile Island, The Dauphin County Office of Emergency Preparedness has prepared a plan outlining nuclear incident emergency medical procudures, Dr. Smith reports.

Copies of the Nuclear Incident Emergency Medical Plan Outline are available on request to the Emergency Health Services Federation of South Central Pennsylvania. 3514 A Trindle Road, Camp Hill, Pa. 17011. A contribution of $10 is requested to defray expenses for each copy.

Hypercalcemia in Tuberculosis

A case with proved hyperparathyroidism

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With the increase of knowledge in the pathophysiology of granulomatous diseases, one often forgets to investigate thoroughly the more common causes of clinical hypercalcemia. This report is presented to demonstrate one such case of hypercalcemia in a patient with tuberculosis: hyperparathyroidism—frequently listed in the differential diagnosis but rarely documented to be present—was the cause of the calcium abnormality.

Case report

A 34-year-old woman presented herself to the Nassau County Medical Center with a one-month history of cough productive of greenish sputum, fever, chills, anorexia, nausea, vomiting, epigastric distress, and generalized weakness. Five months prior to this hospitalization, she had a left nephrectomy for renal calculi and a "damaged" left kidney. She was not taking any vitamins or other medication.

The patient was cachectic in appearance but was in no acute distress. Her temperature was 100.2°F. There was no lymphadenopathy or organomegaly, nor were there neck masses. Chest examination showed rhonchi in the right apical region. The remainder of the examination disclosed nothing remarkable. The chest roentgenogram revealed an irregular infiltrate in the right upper lobe with areas of poorly defined radiolucency. Laboratory work-up revealed a serum calcium level of 13 mg. per deciliter (normal 8.5 to 10.5) and an inorganic phosphate level of 1.4 mg. per deciliter (normal 2.5 to 4.5). The hemogram and other routine laboratory tests, including those for blood urea nitrogen and creatinine, were within normal limits. Parathyroid hormone level was 735 pg. per milliliter (normal up to 500 pg. per milliliter). Thyroid function test results were normal. Bone survey also gave normal results. An intermediate-strength tuberculin skin test (5-unit stabilized purified protein derivative) resulted in 20-mm. induration at 48 hours. Sputum smear for AFB (acid-fast bacilli) was positive and subsequent cultures grew *Mycobacterium tuberculosis*.

The patient was started on triple-drug therapy of isoniazid, rifampin, and ethambutol. Four weeks later, when sputum smears converted to negative for AFB, she underwent neck exploration. At surgery, a single parathyroid adenoma located at the lower pole of the right lobe of the thyroid was found. Postoperative serum calcium levels have remained normal.

Comment

Hypercalcemia associated with active tuberculosis has not been extensively studied. Abbasi et al.[1] reviewed 84 patients with tuberculosis; 27 were found to have elevated serum calcium levels. The causes were neoplastic disease in 4, sarcoidosis in 1, and unexplained in 22. Several theories have been invoked as to the etiology of this unexplained hypercalcemia, with the favored explanation being an abnormal metabolism and/or sensitivity to vitamin D.[2] A similar mechanism is thought to occur in other granulomatous diseases such as sarcoidosis.[3]

Hyperparathyroidism coexisting with tuberculosis is not documented in the modern literature. In our patient there was no clinical evidence pointing toward the diagnosis of sarcoidosis, neoplastic disease, hyperthyroidism, adrenal insufficiency, vitamin D intoxication, or the milk-alkali syndrome. Important positive findings of a history of renal calculi, a constant elevation of the serum calcium level, a low serum phosphate level, and an increased parathyroid hormone level supported the clinical diagnosis of hyperparathyroidism. In the altered vitamin D state seen in granulomatous diseases, the serum calcium usually fluctuates from a normal to slightly increased level and the phosphate level is usually normal.[2] The difference of pattern seen in our patient, as compared with the patient having an altered vitamin D state, further strengthened our diagnosis of hyperparathyroidism—a diagnosis confirmed at surgery.

In conclusion, when a clinician is confronted by a patient who has hypercalcemia and a disease known to produce this abnormality, such as tuberculosis, he should always consider the possibility of a coexistent parathyroid disease prior to evoking other mechanisms of the disease.

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New test to detect potential birth defects raises problems

Progress in medicine sometimes raises new problems.

The Impact Section of American Medical News, the American Medical Association's newspaper for physicians, offers an analysis in the January 30 issue of one of the newer advances in medicine that also brings new problems.

The development is a new diagnostic technique for determining early in pregnancy whether the infant may suffer from a serious birth defect.

The Food and Drug Administration has proposed rules for marketing and use of kits which measure the concentration of AFP (alpha-fetoprotein) in maternal blood and amniotic fluid. This will permit physicians to determine in advance whether the fetus is at high risk of anencephaly and spina bifida. In anencephaly, the brain develops only minimally. In spina bifida, the bony tissue surrounding the spinal cord does not close.

Two conditions often are termed NTD (neural tube defects). About 5,000 babies are born with NTD each year in this country. About half have anencephaly and die quickly. The range of severity in spina bifida is extremely wide, varying from mild walking problems to paralysis and mental retardation.

The testing procedure was widely adopted in Great Britain three years ago. About two thirds of women in Scotland and about one third of those in England are being tested, and birth of affected infants is dropping sharply.

One problem with the procedure is that the initial test will indicate those pregnancies at a higher risk for neural tube defects, but second tests will show that most of these pregnancies are normal. Furthermore, subsequent testing requires careful timing as well as performance of other tests, such as ultrasonography and amniocentesis, an invasive procedure which itself carries some degree of risk to the fetus. Of 1,000 pregnant U.S. women, only one or two would be found to have fetuses with neural tube defects. FDA proposed rules would require completion of the full range of tests if a woman shows an elevated AFP in initial testing.

To complicate the issue even more, the mother who learns she is likely to give birth to a defective infant has only one choice to prevent it—elective abortion. There is widespread organized opposition to elective abortion under any circumstances.

Author of the report is Philip Reilly, a graduate attorney who is now completing his third year at Yale Medical School, and has written a book, "Genetics, Law and Social Policy." Mr. Reilly declares:

"Certainly the AFP technology is posing moral, ethical, and legal problems that are complex. In my opinion, the screening technology is here to stay. The British success in using serum screening to reduce the number of children born with neural tube defects is extremely impressive."

The American Medical Association's House of Delegates at its San Francisco meeting in December adopted a report expressing opposition to proposed FDA rules to strictly regulate AFP testing, calling it "unwarranted intrusion into the practice of medicine." The AMA urged that pilot studies be conducted to determine the feasibility and desirability of mass screening programs of all expectant mothers for neural tube defects.

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Month in Washington

After a frantic burst of activity, Congress has settled the budget reconciliation bill, voted on tax cuts, and departed for a month-long vacation with much of the legislative work for the session behind it.

Medicaid will not be cut as deeply as the Administration wished and the block grant proposal was softened considerably under the budget compromise agreed to by the House-Senate conferees.

The Administration was delighted with the overall budget reconciliation compromise that pared spending next fiscal year by $37 billion, but the Administration was forced to retreat on the two key health items—Medicaid and block grants—that had threatened to stall the huge conference negotiations on the House and Senate budget bills.

The flat, five percent "cap" that the Administration wanted to impose on increased federal outlays for Medicaid next year was thrown out. The Senate had voted a nine percent "cap," but the House had approved a formula decreasing federal payments over the next three years by three percent, two percent, and one percent.

The conference compromise reduced projected costs by three percent, four percent the following fiscal year, and 4.5 percent the next year. Savings are estimated to be about $1 billion a year, about what the Administration sought.

A controversial Senate plan to drop the minimum federal contribution to states to 40 percent from the present 50 percent was a casualty of the conference. A dozen larger states would have been especially hard hit.

State fears about the impact of the Administration's Medicaid "cap" were a major reason House Republicans decided not to fight earlier on the House floor for a health budget package following the Administration's recommendations. Instead, more liberal health provisions backed by the House Democratic leadership were adopted without resistance in order to assure House passage of the rest of the Republican budget substitute that was a triumph for the Administration.

Senator Orrin Hatch (R., Ut.), Chairman of the Senate Labor and Human Resources Committee, made a determined fight to hold the line on the Administration's plan to put 26 categorical health programs into block grants to the states.

With his back against the wall and House conferees not budging, Hatch finally took the unusual step of asking the White House to endorse any concessions he might have to make. The clearance was granted and the impasse over block grants was broken.

The Administration had proposed to break the 26 programs that cost some $4 billion a year into two block grants, giving the states a free latitude to spend their allotments within the blocks.

The compromise calls for three block grants and for continued attachment of certain federal strings on all programs involved. The three blocks cover preventive health, health services, and primary care.

Prepared by the Washington, D.C., office of the American Medical Association.

The controversial family planning program would remain as a categorical program for three years during which time HHS (Health and Human Services) Secretary Richard Schweiker would make a study of the program.

The preventive health block grant would include home health programs, rodent control, fluoridation, health education, hypertension, emergency medical services, rape crisis centers, and health incentive programs.

The health services block combines mental health, and alcohol and drug abuse prevention.

The primary care block grant primarily covers community health centers.

Programs excluded from block grants include, in addition to family planning, venereal disease control, child immunization, tuberculosis control, and migrant health programs.

However, two of the three block grants that emerged from conference were so limited as to be little more than categorical. Under the Health Services block grant, for example, states next year must allocate funds next fiscal year among mental health, alcohol and drug abuse programs as they have in the past. They can shift funds about by five percent the following year and 15 percent the next.

The three-year authorizations for the block grants were:

—Preventive Health—$92 million, $93 million, and $95.5 million with an added $3 million annually for rape crisis centers.

—Health Services—$491 million plus $30 million for alcoholism, $511 million, $532 million.

—Primary Care—$280 million, $302 million, and $327 million.

Under the agreement, the health planning program grants were allowed to continue but with cuts. States were allowed to reduce the number of Health Systems Agencies.

The Administration would be allowed to eliminate as many as 30 percent of the 187 PSRO (Professional Standards Review Organization) programs. The House bill would have permitted the President to kill the program within a few years.

Authority was given in the budget bill to phase out the Public Health Service Hospitals starting next fiscal year.

Programs reauthorized included HMOs (Health Maintenance Organizations, Health Statistics Center, Health Services Research Center, Health Care Technology Center, and the National Library of Medicine.

The budget bill cleared the way for C. Everett Koop, M.D., to become Surgeon General by removing the age limit for the job and the requirement that the nominee have experience within the PHS.

The existing adolescent pregnancy program was continued with a new $10 million Senate program added for research on sexual chastity and more than $6 million for storefront and other operations to counsel on prevention of promiscuity, and so forth.

No major changes were made in Medicare, but a House provision was adopted to increase by $28 the amount patients must pay hospitals before the program picks up the expense. Rejected was a House proposal to require Medicare patients to pay $1 a day for each of the first 60 days of hospitalization.

* * *

The real loser is the public when the FTC (Federal Trade Commission) forces the professions to abandon responsible self-regulation, the American Medical Association has told Congress.

Urging Congress to legislate the FTC out of the business of regulating professions, Lowell Steen, M.D., a member of the AMA Board of Trustees, said "many associations have halted socially desirable activities such as peer review of excessive fees for fear of becoming involved in protracted and financially debilitating administrative procedures."

The FTC has for six years pursued action against the AMA, the Connecticut State Medical Society, and the New Haven County Medical Association challenging ethical principles of the medical profession "in a way that we view as harmful to the welfare of patients," said Dr. Steen in testimony before the Consumer Subcommittee of the Senate Commerce Committee.

"We and other medical societies have had to divert scarce resources from socially beneficial activities to defend against unfounded FTC charges," the AMA official said.

Congress was asked to approve legislation that would strip the FTC of jurisdiction over the state-regulated professions; preclude preemption of state laws by the FTC; provide financial relief from excessive demands of the agency for information; circumscribe the subpoena power of the FTC; clarify the meaning of "unfair competition"; provide protections afforded through judicial proceedings; and repeal the "intervenor program" under which the FTC funds organizations pressing causes before the FTC.

Dr. Steen pointed out that Representatives Thomas Luken (D., Oh.) and Gary Lee (R., N.Y.) have introduced legislation to place a moratorium on FTC actions involving state-regulated professions, an effort supported by the AMA.

One of the AMA's main concerns is the "basic unfairness one finds when involved in an FTC action, where the Commission acts as an inquisitor, prosecutor, judge, and jury," said Dr. Steen. The FTC action against the AMA's ethical precepts on advertising and solicitation came without warning and without prior investigation, he noted. There was "continuing disdain for responsible professional self-regulation and for the interests of the patients," Dr. Steen said. Failure to restrict misleading promotions can result in terrible tragedy to people, but the response of the FTC to the evidence produced by the AMA "was astonishing." The agency held that the AMA's stance against physician testimonials is unacceptably overbroad and entered a sweeping order prohibiting the Association from involving itself in any way in the advertising practices of physicians unless those practices would violate the FTC act.

There are no compelling reasons whatsoever to give the FTC jurisdiction over the professions, the physician said. The FTC has no special insight and to the contrary, "has demonstrated a distinct lack of understanding in this area." State regulation is well suited to dealing with unfair methods of competition and private and state actions may be taken under the federal antitrust laws.

The AMA challenge to the FTC's action on the advertising code has been accepted for review by the Supreme Court which is expected to hand down a decision in the case within a year.

The ADA (American Dental Association) told Congress that the FTC (Federal Trade Commission) wrongfully assumes that "its intervention into the regulation of oral health care delivery in the United States can confer an economic benefit to patients without an accompanying health risk and an adverse effect on quality of care."

ADA President Robert Griffiths, D.D.S., backed legislation that would strip the agency of authority over the professions. Dentists provide a service and not a product; the FTC should have no role in the regulation of dentists, Griffiths told the Senate Commerce Consumer Subcommittee.

Alvin Levin, past President of the American Optometric Association, said his association believes that "not only does the FTC lack the authority to preempt state health care laws, but it should not be given such authority in the future, as a matter of sound public policy."

Senator John Melcher (D., Mt.), a veterinarian, said "in its zeal to protect the consumer, the FTC has far exceeded its statutory mandate." Melcher co-sponsored along with Senator James McClure (R., Id.) a bill in the last Congress to impose a two-year moratorium on the FTC acting against voluntary associations.

* * *

A Presidential commission has recommended that the states adopt a model law that would allow physicians to declare a person dead whose brain has stopped functioning.

In the past, death was said to occur when breathing and heartbeat stopped, and 23 states still adhere to this tradition. Advances in medical technology, which permit respiration and circulation to be prolonged artificially, however, have made this definition obsolete.

Under the Uniform Determination of Death Act, "an individual who has sustained either (1) irreversible cessation of circulatory and respiratory functions, or (2) irreversible cessation of all functions of the entire brain, including the brain stem, is dead."

The law does not specify criteria or tests to be used in determining death, allowing physicians to make decisions using the most up-to-date medical standards.

The AMA, American Bar Association, and National Conference of Commissioners on Uniform State Laws have endorsed the model law. Twenty-seven states have some sort of law allowing brain-based determination of death.

The recommendation was made by the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research.

* * *

The AAMC (Association of American Medical Colleges) has said that all FMGs (foreign medical graduates) should pass a practical "hands on" exam and that U.S. citizens who are FMGs should be required to pass as stiff a written test as foreigners.

A position paper adopted by the AAMC says domestic students are repeatedly evaluated on their essential skills,

continued on page 1555

Dickens and Doctors

Physicians in fiction of Charles Dickens

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Charles John Huffam Dickens was born on February 7, 1812, in his father's house in Landsport, Portsmouth. He died in his own home, Gad's Hill Place, near Rochester, on June 9, 1870, and was buried in Westminster Abbey. In those 58 years, he had become one of the most acclaimed writers of his time; his novels and Christmas stories were eagerly awaited by thousands of his countrymen as well as by English-speaking readers abroad.

Although Dickens's reputation declined in the years following his death as critics took his works to be mere storytelling—simple, lacking in psychologic depth, and of contrived comedy and bathetic drama—the last decades have seen reevaluation and reappraisal of his novelistic artistry. Recent critical opinion suggests good reasons for the enduring popularity of Dicken's works. "The first is . . . there is no greater example of creative force in our literature: vitality, exuberance, idiosyncracy—these are the notes of Dickens's character. The second is humor . . . The third is the sheer abundance and variety of his invention."[1] Dickens was at home in the "thronging complexity of nineteenth century society." His literary palette limned the kaleidoscopic world he knew with vibrancy and brilliance. Sam Weller, Sairey Gamp, Sydney Carton, Bill Sikes, Ebeneezer Scrooge, and the Squeers of Dotheboys Hall—they are all larger than life. In their "comic or pathetic or dramatic essences," they never fail to enlighten and entertain their audiences.

Dickens's father was a minor clerk in the navy pay office. Something of a spendthrift, he was never far from poverty and indeed spent some time during his son's youth in debtors' prison. As a consequence, Dickens had little formal education and none after he was 14 years old. At 12, he was briefly apprenticed in a blacking factory pasting labels on bottles of shoe polish.

In the late 1820s, he became a newspaperman, and, self-taught, began to cover parliamentary debates. His abilities to observe, to write swiftly and accurately and with telling realism, led to a series of *Sketches by "Boz"* in 1835.* (The name was derived from a nickname given his brother Augustus: Moses mispronounced Boses, which then became Bose, and then Boz, and Dickens borrowed it for his pseudonym.) These *Sketches*,* feature articles in the London *Evening Chronicle*, were collected in book form. On the strength of these, the publishers Chapman and Hall asked Dickens to write another series of sketches for their monthly literary magazine; these evolved into the *Posthumous Papers of the Pickwick Club* in 1837.* By the fourth installment, the *Pickwick Papers*,* which had been printed intitially in runs of a few thousand, were being sold to eager readers in the tens of thousands. Dickens, at age 24, was a celebrated author, and his popularity scarcely waned thereafter. In addition to his five Christmas books of which *A Christmas Carol* (1843)* is the most well known, he published 14 full-length novels and was at work on a fifteenth when he died. He found time in 1842 to write a volume of *American Notes** based on his first trip to the United States in 1842, *Pictures from Italy** after visiting that country in 1846, and to contribute various articles, stories, essays, and polemics to two magazines that he edited (*Household Words* in 1857 and *All the Year Round* in 1860). And, besides, he was an accomplished actor in amateur theatricals, and a master of the dramatic reading. At one of his *Pickwick** readings, his performance was so consummate as to set his audience to laughing, roaring, weeping, and howling in delight.

Dickens sired 10 children, and after his separation from his wife in 1858 presumably had a lengthy and clandestine affair with a young actress 27 years his junior, Ellen Ternan.

Dickens's life was not that of only literary triumph after triumph. Johnson's[2] definitive biography holds the private tragedy of his personal life to the mirror of his public success: "The resolute belief in life and in humanity that Dickens maintained was a banner he held high despite all the evils he saw in society and despite the gathering clouds of personal

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*With respect to material written by Dickens himself, reference information can be found in any standard collection of Dickens' works, such as in editions put out by the Oxford University Press, Macmillan Publishing Company, and Everyman Library (E. P. Dutton and Company).

FIGURE 1. Charles Dickens, his wife (Catherine) and her sister (Georgina) from pencil drawing by Daniel Maclise.

misery that shadowed his later years."

His youthful stint in the blacking factory remained a painful memory which he never discussed with family or friends. His children were often ill, with fever and convulsions, and his daughter Dora Annie died in 1850 of an illness described as brain congestion, but which was probably viral encephalitis. His daughter Mary became ill with cholera, and Dickens had to nurse her, in isolation, back to health. His sister Fanny, who was married to an army surgeon, died of tuberculosis (in 1847), and her terminal illness was marked by recurrent paroxysms of coughing, "suffering and suffocation." His wife had difficulties during childbirth. Her seventh labor was so difficult that the obstetric specialist called in consultation told Dickens he had seen but one similar case in his lifetime of practice. A subsequent pregnancy ended in miscarriage in 1846; three years later, Dickens learned of choloroform anesthesia and insisted it be administered to his wife during the labor and birth of their eighth child. "The doctors were dead against it," he wrote, "but I stood my ground and thank God triumphantly it spared all pain." Dickens was acquainted with mental illness in that his wife became seriously unwell, with giddiness, alarming confusion, and nervousness. She was taken to a specialist (James Wilson, M.D.) who confirmed the psychosomatic nature of her illness; this was at a time when the fabric of the marital life of the Dickenses was slowly unravelling (Fig. 1). Their permanent separation came after a long series of squabbles and misunderstandings, and was not amicable. "Poor Catherine and I," Dickens wrote to a friend, "are not made for each other and there is no help for it. It is not only that she makes me uneasy and unhappy, but that I make her so too—and much more so . . . I claim no immunity from blame. There is plenty of fault on my side, I daresay, in the way of a thousand uncertainties, caprices and difficulties of disposition, . . . but the years have not made it easier to bear for either of us." He immersed himself in theatricals, in dramatic readings where the adulation of his audience was immediate, and he continued to write.

Dickens was occasionally ill during his younger years; it was reputed that he suffered from a kidney ailment and gout. In his later years, he required poppyhead fomentations and laudanum for relief of pain. Just prior to his trip to America in 1842, he was stricken with fistula *in ano* and required surgery without anesthesia. He had various episodes of bronchitis requiring "soundings and stethoscoping" in his travels to America and the British Isles, and would be attended by a physician when needed. During his last tour of readings in 1869, he became increasingly ill with episodes of fatigue, weakness, and left hemianopsia. Sir Thomas Watson, M.D., was asked in to consult after Dickens had effusions of blood from his bowels, some giddiness, pain in his gouty foot, and these complaints: "My weakness and deadness are all in the left side and if I don't look at anything I try to touch with my hand I don't know where it is." Dr. Watson accurately suggested that Dickens was on the brink of an attack of paralysis of his left side and possibly of apoplexy. Dickens took some heed to his advice, curtailing his schedule, but to no avail, and he died of a stroke the following year.

Self-taught, Dickens wrote about what he saw and what he knew. He was an accurate observer of the human comedy: "He was a master of characterization which, to be sure, passes into caricature. . . . His characters, the best of them, stand out boldly, are larger than life. . . . They are the same men and women you and I see, but Dickens, with that comprehensive and comprehending vision of his, makes us see them in large and inclusive detail."[3]

What had this most perceptive "constant eager observer" to say about physicians? They appear often, although always incidentally, in Dickens's novels and stories. As surely as was his father the model for Wilkins Micawber in *David Copperfield*,* so the physicians in Dickens's works are patterned after some of the friends, acquaintances, and professionals he met in his lifetime.

In the *Sketches by Boz*, in the section "Tales," Dickens tells the story of "The Black Veil."*

> One winter's evening . . . a young medical practitioner, recently established in business, was seated by a cheerful fire in his little parlor, listening to the wind which was beating the rain in pattering drops against the window, or rumbling dismally in the chimney. The night was wet and cold; he had been walking through mud and water the whole day and was now comfortably reposing in dressing gown and slippers,

> more than half asleep and less than half awake, revolving a thousand matters in his wandering imagination. . . . He began to wonder when his first patient would appear, or whether he was destined, by a special dispensation of Providence, never to have any patients at all.

Indeed, he has a visitor, "a singularly tall woman dressed in deep mourning, her face shrouded by a thick black veil."

> There was a desperate earnestness in this woman's manner, that went to the young man's heart. He was young in his profession, and had not yet witnessed enough of the miseries which are daily presented before the eyes of its members, to have grown comparatively callous to human suffering.*

As the tale unfolds, the woman is found to be the mother of a criminal just hanged.

> The mother was a widow without friends or money and had denied herself necessaries, to bestow them on her orphan boy. That boy, unmindful of her prayers, and forgetful of the sufferings she had endured for him—incessant anxiety of mind and voluntary starvation of body—had plunged into a career of dissipation and crime. And this was the result; his own death by the hangman's hands, and his mother's shame and incurable insanity.
>
> For many years after this occurrence, and when profitable and arduous avocations would have led many men to forget that such a miserable being existed, the young surgeon was a daily visitor at the side of the harmless mad woman; not only soothing her by his presence and kindness, but alleviating the rigor of her condition by pecuniary donations for her comfort and support, bestowed with no sparing hand. . . . The blessings he was instrumental in conferring, have been repaid to him a thousand-fold, but, amid all the honors of rank and station which have been heaped upon him, and which he has so well earned, he can have no reminiscence more gratifying to his heart that that connected with The Black Veil.*

In *Oliver Twist* (chapter 29, 1833),* Bill Sikes and Toby Crackit force Oliver into attempted burglary, and breaking and entering into a private home. Oliver is wounded by a pistol shot and brought into the home of the Maylies. The doctor is sent for.

> Mr. Losberne, a surgeon in the neighborhood, known through a circuit of ten miles round as "the doctor," had grown fat, more from good-humor than from good living, and was as kind and hearty and withal as eccentric an old bachelor as will be found in five times that space by any explorer alive.
>
> The doctor was absent much longer than either he or the ladies had anticipated. A large flat box was fetched out of the gig, and a bedroom bell was rung very often, and the servants ran up and down stairs perpetually, from which tokens it was justly concluded that something important was going on above. At length he returned, and in reply to an anxious inquiry after his patient, looked very mysterious.

The physician lets the Maylies know that the thief is a boy, and then successfully keeps Oliver from the Constable and the Bow Street Runners investigating the attempted robbery by suggesting to Giles and Brittles that they could not make positive identification.*

In *The Old Curiosity Shop* (chapter 46, 1841)* Little Nell becomes seriously ill while travelling. The Schoolmaster brings her to a small inn.

> "She is quite exhausted," said the Schoolmaster. "She is perishing of want," rejoined the old man. "I never thought how weak and ill she was, till now." They dispatched a messenger for the doctor. . . .
>
> The doctor, who was a red-nosed gentlemen with a great bunch of seals dangling below his waistcoat of ribbed black satin, arrived with all speed, and taking his seat by the bedside of poor Nell, drew out his watch, and felt her pulse. Then he looked at her tongue, then he felt her pulse again, and while he did so, he eyed the half-emptied wine-glass as if in profound abstraction.
>
> "I should give her"—said the doctor at length, "a teaspoonful, every now and then, of hot brandy and water."
>
> "Why that's exactly what we've done, sir!" said the delighted landlady.
>
> "I should also," observed the doctor, who had passed the footbath on the stairs, "I should also," said the doctor, in the voice of an oracle, "put her feet in hot water, and wrap then in flannel. I should likewise," said the doctor with increased solemnity, "give her something light for supper—the wing of a roasted fowl now—"
>
> "You may then," said the doctor, rising gravely, "give her a glass of hot mulled port wine, if she likes wine—" "And a toast, sir?" suggested the landlady. "Ay," said the doctor, in the tone of a man who makes a dignified concession. "And a toast—of bread. But be very particular to make it of bread, if you please, ma'am."
>
> With which parting injunction, slowly and portentously delivered, the doctor departed, leaving the whole house in admiration of that wisdom which tallied so closely with their own. Everybody said he was a very shrewd doctor indeed, and knew perfectly what people's constitutions were; which there appears some reason to suppose he did.

In *Martin Chuzzlewit* (chapter 27, 1843 to 1844),* a physician is appointed to the board of the Anglo-Bengalee Assurance Company, of which the chairman is Montague Tigg ("a needy sharper") and the secretary David Crimple ("a pawnbroker") (Fig. 2). He is John Jobling, Esquire, MRCS.

> In certain quarters of the City and its neighborhood, Mr. Jobling was . . . a very popular character. He had a portentously sagacious chin, and very pompous voice, with a rich huskiness in some of its tones that went directly to the heart, like a ray of light shining through the ruddy medium of choice old burgundy. His neckerchief and shift-frill were ever of the whitest, his clothes of the blackest and sleekest, his gold watch-chain of the heaviest, and his seals of the largest. His boots, which were always of the brightest, creaked as he walked. Perhaps he could shake his head, rub his hands, or warm himself before a fire, better than any man alive; and he had a peculiar way of smacking his lips and saying, "Ah!" at intervals while patients detailed their symptoms, which inspired great confidence. It seemed to express, "I know what you're going to say better than you do; but go on, go on." As

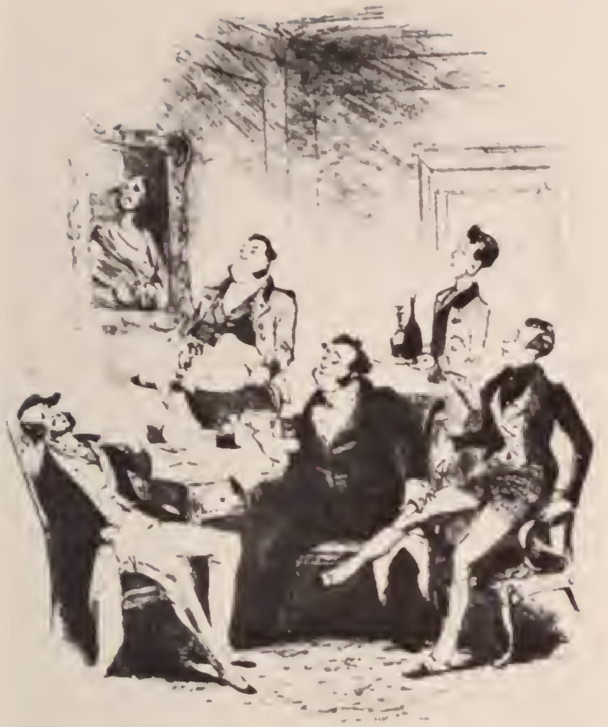

FIGURE 2. Board of Directors of Anglo-Bengalee Assurance Company, from engraving by Hablot Knight Brown (Phiz), for *Martin Chuzzlewit.** "I take particular case, Mr. Montague," returned the doctor, "as illustrating my remark, you observe. In this portion of Mr. Crimple's leg, sir, there is a certain amount of animal oil. In every one of Mr. Crimple's joints, sir, there is more or less of the same deposit. Very good. If Mr. Crimple neglects his meals, or fails to take his proper quantity of rest, the oil wanes, and becomes exhausted. What is the consequence? Mr. Crimple's bones sink down into their sockets, sir, and Mr. Crimple becomes a weazen, puny, stunted, miserable man?"

he talked on all occasions whether he had anything to say or not, it was unanimously observed of him that he was "full of anecdote"; and his experience and profit from it were considered, for the same reason, to be something much too extensive for description. His female patients could never praise him too highly; and the coldest of his male admirers would say this for him to their friends, "that whatever Jobling's professional skill might be (and it could not be denied that he had a very high reputation), he was one of the most comfortable fellows you ever saw in your life!"

In *Dombey and Son* (chapter 1, 1846 to 1848),* Mrs. Dombey goes into a difficult labor.

Doctor Parker Peps, one of the Court Physicians, and a man of immense reputation for assisting at the increase of great families, was walking up and down the drawing-room with his hands behind him, to the unspeakable admiration of the family surgeon, who had regularly puffed the case for the last six weeks, among all patients, friends, and acquaintances, as one to which he was in hourly expectation day and night of being summoned, in conjunction with Dr. Parker Peps.

"Well, sir," said Dr. Parker Peps in a round, deep sonorous voice, muffled for the occasion, like the knocker; "do you find that your dear lady is at all roused by your visit?" . . . "We must not disguise from you, sir," said Dr. Parker Peps, "that there is a want of power in Her Grace the Duchess—I beg your pardon; I confound names; I should say, in your amiable lady. That there is a certain degree of langor, and a general absence of elasticity, which we would rather—not—" . . . "Mr. Pilkins who, from his position, is best acquainted with the patient's constitution in its normal state (an acquaintance very valuable to us in forming our opinions on these occasions) is of opinion, with me, that Nature must be called upon to make vigorous effort in this instance; and that if our interesting friend the Countess of Dombey—I *beg* your pardon; Mrs. Dombey—should not be—"

"Able," said the family practitioner.

"To make that effort successfully," said Dr. Parker Peps, "then a crisis might arise, which we should both sincerely deplore."

With that, they stood for a few seconds looking at the ground. Then, on the motion—made in dumb show—of Dr. Parker Peps, they went upstairs; the family practitioner opening the room-door for that distinguished professional, and following him out with most obsequious politeness.

In *David Copperfield* (chapter 1, 1849 to 1851),* Mrs. Copperfield goes into labor and is carried upstairs by Peggoty. As usual, a special messenger is sent to fetch nurse and doctor.

Those allied powers were considerably astonished, when they arrived within a few minutes of each other, to find an unknown lady of portentous appearance sitting before the fire [David Copperfield's aunt] . . .

The doctor having been upstairs and come down again, and having satisfied himself, I suppose, that there was a probability of this unknown lady and himself having to sit there, face to face, for some hours, laid himself out to be polite and social. He was the meekest of his sex, the mildest of little men. He sidled in and out of a room to take up the less space. He walked as softly as the Ghost in Hamlet, and more slowly. He carried his head on one side, partly in modest depreciation of himself, nothing to say that he hadn't a word to throw at a dog. He couldn't have *thrown* a word at a mad dog. He might have offered him one gently, or half a one, or a fragment of one; for he spoke as slowly as he walked; but he wouldn't have been rude to him, and he couldn't have been quick with him, for any earthly consideration. . . .

He was again sent for. . . .

"Well, ma'am," resumed Mr. Chillip, as soon as he had courage. "I am happy to congratulate you. All is now over, ma'am, and well over."

During the five minutes or so that Mr. Chillip devoted to the delivery of this oration, my aunt eyed him narrowly.

. . . "And *she*. How is *she*?" said my aunt sharply.

Mr. Chillip laid his head a little more on one side and looked at my aunt like a amiable bird. "The baby," said my aunt. "How is she?"

"Ma'am, returned Mr. Chillip, "I apprehended you had known. It's a boy."

And so was the birth of David Copperfield announced.

In *Bleak House* (chapter 67, 1852 to 1853),* Richard Carstone is apprenticed by his guardian, Mr. John Jarndyce, to Mr. Bayham Badger, a medical practitioner in London, "who had a good practice at Chelsea and attended a large public Institution besides."

> Mr. Bayham Badger himself was a pink, fresh-faced, crisp-looking gentleman, with a weak voice, white teeth, light hair, and surprised eyes; some years younger, I should say, than Mrs. Bayham Badger. He admired her exceedingly, but principally, and to begin with, on the curious ground (as it seemed to us) of her having had three husbands.

In a novella *The Lazy Tour of Two Idle Apprentices* (chapter 2, 1857),* Thomas Idle slips on a wet stone, twisting his ankle outwards with "a hot, rending, tearing pain." Repairing to the local inn, his friend Francis Goodchild inquires for a doctor.

> "Gently, Jock, gently," said the Doctor as he advanced with a quiet step. 'Gentlemen, a good evening. I am sorry that my presence is required here. A slight accident, I hope? A slip and a fall? Yes, yes, yes. Carrock, indeed? Hah! Does that pain you, sir? No doubt, it does. It is the great connecting ligament here, you see, that has been badly strained. Time and rest, sir! They often are the recipe in greater cases,' with a slight sigh, 'and often the recipe in small. I can send a lotion to relieve you, but we must leave the cure to time and rest.'
>
> This he said, holding Idle's foot on his knee between his two hands, as he sat over against him. He had touched it tenderly and skillfully in explanation of what he said, and, when his careful examination was completed, softly returned it to its former horizontal position on a chair.
>
> He spoke with a little irresolution whenever he began, but afterwards fluently. He was a tall, thin, large-boned, hard-featured; but at a second glance, the mild expression of his face and some particular touches of sweetness and patience about his mouth, corrected this impression and assigned his long professional rides, by day and night, in the bleak hill-weather, as the true cause of that appearance. He stopped very little, though past seventy and very grey. His dress was more like that of a clergyman than a country doctor, being a plain black suit, and a plain white neckerchief tied behind like a band. His black was the worse for wear, and there were darns in his coat, and his linen was a little frayed at the hems and edges. He might have been poor—it was likely enough in that out-of-the-way spot—or he might have been a little self-forgetful and eccentric. Any one could have seen directly that he had neither wife nor child at home. He had a scholarly air with him, and that kind of considerate humanity towards others which claimed a gentle consideration for himself.

All these vignettes of physicians are typical of Dickens's artistry and style. Dickens "learned . . . from his own circumstances and observation, combining an extraordinary relish for the odd, the colorful, and the dramatic in urban life and in human character [with] a sentimentally humanitarian attitude towards human problems."[4] He clearly had an affection for the medical profession. "Doctors," in Dickens, "from Mr. Losberne on . . . are always bluff, hearty fellows. (The predatory Dr. Jobling of *Martin Chuzzlewit** is not a practitioner but a consultant, a medical officer—an important and invidious distinction.) A hypochondriac could not show greater regard for the faculty."[5]

Perhaps, Dickens' attitude is best seen in *Bleak House* (chapter 67, 1852 to 1853)* As the novel ends, Esther Summerson has married her physician, Allan Woodcourt. In her narrative, she reflects on her life:

> I never walk out with my husband but I hear the people bless him. I never go into a house of any degree, but hear his praises, or see them in grateful eyes. I never lie down at night, but I know that in the course of that day he has alleviated pain, and soothed some fellow-creature in the time of need. I know that from the beds of those who were past recovery, thanks have often, often gone up, in the last hour, for his patient ministration. Is not this to be rich?

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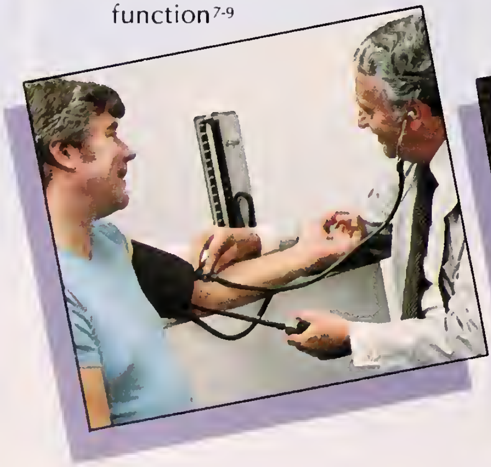

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☐ Strong foundation for stepped-care therapy

☐ Long-term economy

Before prescribing, see complete prescribing information in the package insert, or in PDR, or available from your Pennwalt representative. The following is a brief summary. **Indications:** Zaroxolyn (metolazone) is an antihypertensive diuretic indicated for the management of mild to moderate essential hypertension as sole therapeutic agent and in the more severe forms of hypertension in conjunction with other antihypertensive agents, and also, edema associated with heart failure and renal disease. Routine use in pregnancy is inappropriate. **Contraindications:** Anuria, hepatic coma or precoma, allergy or hypersensitivity to Zaroxolyn. **Warnings:** In theory cross-allergy may occur in patients allergic to sulfonamide-derived drugs, thiazides or quinethazone Hypokalemia may occur, and is a particular hazard in digitalized patients, dangerous or fatal arrhythmias may occur Azotemia and hyperuricemia may be noted or precipitated Considerable potentiation may occur when given concurrently with furosemide When used concurrently with other antihypertensives, the dosage of the other agents should be reduced Use with potassium-sparing diuretics may cause potassium retention and hyperkalemia. Administration to women of childbearing age requires that potential benefits be weighed against possible hazards to the fetus. Zaroxolyn appears in the breast milk Not for pediatric use **Precautions:** Perform periodic examination of serum electrolytes, BUN, uric acid, and glucose Observe patients for signs of fluid or electrolyte imbalance, namely hyponatremia, hypochloremic alkalosis and hypokalemia These determinations are particularly important when there is excessive vomiting or diarrhea, or when parenteral fluids are administered Patients treated with diuretics or corticosteroids are susceptible to potassium depletion. Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Insulin requirements may be affected in diabetics Hyperglycemia and glycosuria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Orthostatic hypotension may occur. Dilutional hyponatremia may occur. Zaroxolyn 10 mg tablets contain FD&C Yellow No. 5 (tartrazine) which may cause allergic-type reactions (including bronchial asthma) in certain susceptible individuals. Although the overall incidence of FD&C Yellow No. 5 (tartrazine) sensitivity in the general population is low, it is frequently seen in patients who also have aspirin sensitivity. **Adverse Reactions:** Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, vertigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urticaria, other skin rashes, dryness of mouth, hypokalemia, hyponatremia, hypochloremia, hypochloremic alkalosis, hyperuricemia, hyperglycemia, glycosuria, raised BUN or creatinine, fatigue, muscle cramps or spasm, weakness, restlessness, chills, and acute gouty attacks. **Usual Initial Once-Daily Dosages:** mild to moderate essential hypertension—2½ to 5 mg; edema of cardiac failure—5 to 10 mg, edema of renal disease—5 to 20 mg Dosage adjustment is usually necessary during the course of therapy. **How Supplied:** Tablets, 2½, 5 and 10 mg.

References: 1. Data on file, Medical Department, Pennwalt Pharmaceutical Division. 2. Sambhi MP, Eggena P, Barrett JD, et al: A crossover comparison of the effects of metolazone and hydrochlorothiazide therapy on blood pressure and renin angiotensin system in patients with essential hypertension, in Sambhi MP (ed): *Systemic Effects of Antihypertensive Agents*. New York, Stratton, 1976, pp 221-245. 3. Pilewski RM, Scheib ET, Misage JR, et al: Technique of controlled drug assay in hypertension: V. Comparison of hydrochlorothiazide with a new quinethazone diuretic, metolazone. *Clin Pharmacol Ther* 12:843-848, 1971. 4. Fotiu S, Mroczek WJ, Davidov M, et al: Antihypertensive efficacy of metolazone. *Clin Pharmacol Ther* 16:318-321, 1974. 5. Cangiano JL: Effects of prolonged administration of metolazone in the treatment of essential hypertension. *Current Therapeutic Research* 20:745-750, 1976. 6. Dornfeld L, Kane RE: Metolazone in essential hypertension: The long-term clinical efficacy of a new diuretic. *Current Therapeutic Research* 18:527-533, 1975. 7. Puschett JB: Physiologic basis for the use of new and older diuretics in congestive heart failure. *Cardiovascular Medicine* 2:119-134, 1977. 8. Craswell PW, Ezzat E, Kopstein J, et al: Use of metolazone, a new diuretic, in patients with renal disease. *Nephron* 12:63-73, 1973. 9. Bennett WM, Porter GA: Efficacy and safety of metolazone in renal failure and the nephrotic syndrome. *J Clin Pharmacol* 13:357-364, 1973. 10. *Drug Topics Red Book 1981*, and manufacturers' suggested prices.

℞ DIVISION
PENNWALT
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A-297

Help for Impaired Physician

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Alcoholism, mental illness, and substance abuse are leading causes of impairment, death, and disability in our society, ranking along with heart disease and cancer. Physicians, who are not immune to these illnesses, are believed to be at higher risk than is the general population for substance abuse because of easy accessibility. Physician suicide, usually related to one of these three illnesses, is definitely higher than it is in the general population.

Unfortunately, one of the cardinal features of alcoholism and substance abuse is denial that there is a problem. Often in these instances, contrary to most medical conditions where pain and discomfort lead one to seek treatment and alleviation of suffering, the more serious the problem becomes the more the patient tries to deny and hide it.

As physicians, we have concern for our troubled or impaired colleagues, as well as concern for their patients who may be receiving inadequate or improper care.

Conditions are treatable!

In recent years the treatment of these conditions has become much more open and acceptable. Treatment of national figures, such as Wilbur Mills and Betty Ford, is openly discussed and the success recognized. Industrial alcoholism programs continue to show success ratios of about 70 percent, and drinking-driver programs show evidence of significant behavioral change. For alcoholism, treatment frequently consists of a 28-day intermediate-care facility with continued "life maintenance" through Alcoholics Anonymous. Many others are treated through outpatient facilities. Similar resources exist for drug treatment.

First, however, one must accept and recognize the need for treatment. Frequently, strong confrontation is needed to break through the denial so that the individual will recognize this need. Often coupled with successful confrontations are contingent behavioral consequences, such as loss of job, spouse, or driving privileges if one does not get treatment.

Unfortunately, most of us have a reluctance to confront others about such issues, particularly when the confrontation is perceived as an attack rather than concern. It is usually easier to do nothing than to receive someone's disapproval, or perhaps even the disapproval of other colleagues as well. However, without such confrontation the chance of any treatment or change is unlikely to occur. The longer the illness progresses, the greater the likelihood of irreparable loss to health, personal relationships, work, skills, and judgment.

Experience elsewhere

In the last 15 years there has been a marked increase in interest among physicians and organized medical societies in a more vigorous attack on this problem. At last count, more than 40 state medical societies have developed some kind of impaired-physician program, and over 35 states have enacted legislation providing for nonpunitive therapeutic alternatives for disabled physicians. To further highlight the interest in the impaired-physician problem, in the last several years there have been several national conferences on the impaired physician, many specialty societies have developed committees on the impaired physician, the AMA publishes a newsletter to disseminate information among those involved, and there is even a research council on physician impairment to offer aid to those wishing to further study this problem systematically. For example, in the state of Maryland, a leader in the impaired-physician field for some time, there are now about 200 referrals per year from a base of approximately 7,000 physicians. Considering New York's 55,000 licensed physicians, one can see the potential magnitude of the problem.

Experience in New York State

In 1974, the council of MSSNY (Medical Society of the State of New York) approved a plan for dealing with the problem of the sick physician in New York State. The plan had been devised after much study by a joint ad hoc committee of MSSNY committees on alcoholism, drug abuse, and mental health. This was done with the full approval of the State board for medicine and the division of professional conduct of the State of New York Department of Education.

The approach developed was one that advertised a hotline number at MSSNY through which anyone could report a troubled or impaired physician. The caller would then be contacted by a member of the Physicians' Committee to discuss the case, and two physician members of the Committee would call on the reported physician to talk over the problem. The Committee greatly stressed its noncoercive approach—there were to be no consequences or follow-up if the reported physician refused to respond to the Committee members. Confidentiality was stressed; no records were kept. Anonymity for the Committee members was maintained so they could not be contacted outside official channels.

From the fall of 1974, when the Committee began its operation, through May, 1977, there was a total of 81 calls, which were followed up with visits. The problems were fairly well divided among alcoholism, drug abuse, and mental illness.

There was no intention that this be either a "foolproof" system or a vigilante committee. It was anticipated that the Committee would not be able to help everyone, but above all it could guarantee the informant that intervention would not harm the physician in any way.

There were many individuals who refused help, but personal communications with many members of the Physicians' Committee indicated there were also many physicians visited who had welcomed the opportunity to talk about the problem with knowledgeable individuals in a safe manner and who accepted recommendations for treatment.

Unfortunately in June, 1977, the New York State legislature passed the law colloquially referred to as the "snitch law." This requires that any physician who is aware of any misconduct on the part of another physician will disclose such misconduct to the board of professional conduct. A physician with such knowledge who does not make such a disclosure is, by this law, himself guilty of misconduct. Although the law is well meaning in intent—to protect the public—it is obviously unenforceable and serves as a disincentive for reporting, owing to the feared loss of license (and, therefore, income) of the person reported. It also unfortunately made impossible the work of the Physicians' Committee.

Through the combined efforts of MSSNY, Stanley Gitlow, M.D., former chairman of the Physicians' Committee; Sheila Blume, M.D., Director of the N.Y.S. Division of Alcoholism and Alcohol Abuse; David Axelrod, M.D., Commissioner, State of New York Department of Health; and Thaddeus Murawski, M.D., Executive Secretary of the New York State Board for Professional Medical Conduct in April, 1980, a new law, exempting the Physicians' Committee from having to report an impaired physician to the board of professional conduct, emerged. Thus, once again one could encourage people to report troubled physicians to the Committee with the assurance that they would not be harming them in any way. The Committee was given a three-year period of operation, and all procedures must be approved by the Commissioner of Health and the Director of the Division of Alcoholism and Alcohol Abuse. At the end of the three-year demonstration period, the statistical results must be reported.

A compromise protocol of procedure, to be outlined herein, was agreed on between MSSNY and the Commissioner of Health in June, 1981. It remains noncoercive, in that there are no direct consequences if the reported physician continues to deny the problem or refuses to cooperate or even see the Committee members. The Physicians' Committee will never directly report any physician to the board of professional conduct. Strict confidentiality is maintained, and no records are kept of individual names except by the Committee chairman or vice-chairmen for purposes of collection of follow-up data. Confidentiality is protected by law. Anonymity of Committee members, felt to be so important in the past, will be maintained. It is the Committee's wish to be seen as a "helping group" so that anyone calling MSSNY to report a troubled or possibly impaired physician can be assured that the physician cannot be harmed through this intervention—it can only help. An added feature of the new protocol is that the caller will have access to expert advice and suggestions, if requested, on how to deal with the issue on a local level.

Procedure

The entire protocol is printed at the end of this article, but in brief summary the procedure is that a concerned caller contacts MSSNY to indicate that he would like to activate the Physicians' Committee. His name and telephone number are taken, and he then will be called by the Committee chairman or vice-chairman to discuss the details of the case. The chairman speaks with the caller to get pertinent clinical data to insure that intervention is justified. If further verification is needed, the chairman may request that a second caller contact him. Then, two physicians who do not know the troubled or impaired physician will visit him to try to help him recognize his problem, let him know that treatment is available, and if applicable recommend specific treatment sources. Each situation will be different, and will be handled according to the sensitivity, expertise, and experience of the two physicians making the intervention visit. The chairman will be available to the caller at any time to discuss what may be happening and/or for further suggestions for caller action. The chairman is prohibited by law from giving information back to the caller about the reported physician. After a month, the chairman will contact the caller to assess progress and obtain follow-up data from him on the results of the intervention. Other follow-up calls will be made at intervals of 3, 6, 12, and 24 months. At these intervals, the chairman will also contact the reported physician to ask his impression of the intervention. From these follow-up data, a statistical report will be made to the Commissioner of Health and the Director of the Division of Alcoholism and Alcohol Abuse at the end of the three-year demonstration period; then, hopefully, they can recommend to the legislature continuation of the Committee's exemption from reporting to the board of professional conduct. It should be noted, however, that the caller is free to escalate the intervention and report the physician directly to the board of professional conduct at any time.

If the individual who calls MSSNY to report a troubled or impaired physician is a physician, such reporting does not exempt him from the law if he knows the physician to be "impaired." However, if he is not certain whether the physician is impaired or is simply "troubled," then it is reasonable to make the report and activate the intervention interview by two experienced members of the Physicians' Committee. No names are ever kept at MSSNY headquarters; the caller's name is destroyed as soon as his name and number are given to the chairman or vice-chairman of the Physicians' Committee. No State agencies can ever know that the call was made.

Protocol of procedure for MSSNY Physicians' Committee

I. Initial call to Physicians' Committee

An initial caller telephones the Physicians' Committee through a private number. Staff obtains the name, address, and telephone number of the initial caller who is informed that the call will be returned by the chairman or vice-chairman of the Committee.

II. Action taken by staff

After the staff receives the initial information from the caller, it takes the following action:

A. Calls the chairman or vice-chairman of the Physicians' Committee who is then given the initial caller's name, address, and telephone number

B. Sends the initial caller, at the direction of the chairman, information concerning the Physicians' Committee, and information concerning the reporting requirements of the State Board for Professional Medical Conduct, including the mandatory reporting requirements

C. Records the date and the name of the chairman or vice-chairman who was informed of the call by the staff

D. Assigns a case number

III. Action taken by chairman or vice-chairman

A. After the staff of the Physicians' Committee has informed the chairman or vice-chairman of a call, the chairman or vice-chairman contacts the initial caller and obtains the following information:

  1. Position, job, professional status of caller, and relationship of caller to reported physician
  2. Name, address and phone number, age, and sex of the physician being reported; also year of M.D. degree and type of practice
  3. Specific behavioral information, hopefully citing incidents and examples, which indicates why the physician may be troubled and/or impaired
  4. Consent to use the caller's name in the confrontation session with the reported physician. This consent is desirable, but not a precondition for intervention

B. The chairman or vice-chairman evaluates the information obtained from the caller to determine whether or not the information is sufficient and appropriate to justify intervention by the Physicians' Committee. If the information is deemed sufficient, the course of action outlined in Paragraph III C will follow. If the information is deemed insufficient or inappropriate, the chairman or vice-chairman will take the following action:

  1. If the information received from the caller indicates that the problem of the reported physician constitutes a threat to public health and safety, in that there is an immediate and serious danger to patients, the caller will be told that the Physicians' Committee is not prepared to handle this complaint and will be given the telephone number of the State board for professional medical conduct to contact immediately. (If the caller is a physician, nurse, pharmacist, and so forth, he or she will be reminded of the mandatory reporting requirements of the Public Health Law §230)
  2. If the information received from the caller leads the chairman or vice-chairman to believe that the information is not sufficient to warrant a preliminary determination that the reported physician is troubled and/or impaired, then the following will occur:
     a. The caller will be asked to have a second person call, preferably a physician colleague or hospital administrator, to give additional information concerning the reported physician
     b. After the conversation with the second caller, or if no call is received, the chairman or vice-chairman may make the determination that the information received is insufficient. The case is then closed

C. If the information obtained from the caller is sufficient to justify intervention by the Physicians' Committee, the chairman or vice-chairman will take the following action:

  1. Inform the caller that two members of the Physicians' Committee will contact the reported physician shortly to arrange a meeting with him or her
  2. Encourage the caller to report back to the chairman or vice-chairman at any time concerning significant developments, negative or positive, on the progress of the reported physician. The caller will be informed that the chairman or vice-chairman will be happy to act as a resource for evaluating and/or recommending any course of action that the caller and any local, interested persons (colleagues, local medical society, hospital administrators, and so forth) may wish to take; however, federal confidentiality regulations will prohibit him from reporting back to the caller any specific information about contacts with the reported physician
  3. Inform the caller that he or she will be contacted within one month

4. Contact the two Committee members and give them the reported physicians's name, address and telephone number, and any pertinent clinical data

IV. Action taken by two Committee members

A. Two members of the Physicians' Committee will call the reported physician to arrange a mutually convenient meeting

B. If the reported physician refuses to meet with the two members, they will report back to the chairman. The chairman will contact the caller within one month to ask if any further action has been taken by the reported physician or the caller

C. If the two members meet with the reported physician, but he or she refuses to cooperate or denies that there is a problem, the two members will report back to the chairman. The chairman will take action as set forth in Paragraph IV B

D. If the two members meet with the reported physician and determine that there is no problem, they will report this determination to the chairman. Within one month after the meeting, the chairman will contact the caller and if there is new information that justifies further intervention, the case will be reactivated. If there is no new information, the case will be closed

E. If the two members meet with the reported physician and convince him or her to accept treatment, they will then provide information about available treatment if that is necessary. After the meeting, the two members will report back to the chairman. The chairman or his representative will take the following action:

1. Contact the caller within one month of the meeting
2. Contact the caller within three months of the meeting to collect follow-up data referred to in Paragraph VI
3. Contact the caller and reported physician within 6-, 12-, and 24-month intervals of the meeting with the committee members

F. If the two members have met with the reported physician and have not convinced him or her to accept treatment, but have established a rapport with the reported physician, the members may return for additional visits with the reported physician. Within one month of their first visit, the members will report back to the chairman, who will take action as set forth in Paragraph IV C or E, whichever is applicable

V. Information obtained by Physicians' Committee

A. All information obtained will remain confidential, and data compiled will not reveal personally identifiable information about the reported physicians

B. All information obtained by the Physicians' Committee chairman will be retained for the life of the demonstration period, which, under current law, ends March 31, 1983

C. After March 31, 1983, information obtained by the Physicians' Committee on any named reported physicians will be destroyed unless the project is extended by legislation

VI. Data for report to Commissioner of Health and Director of Division of Alcoholism and Alcohol Abuse

A. Data for the report to the Commissioner of Health and the Director of the Division of Alcoholism and Alcohol Abuse will be compiled by the Physicians' Committee and will answer the following questions concerning reported physicians:

1. Personal data, including age, sex, year of graduation from medical school, and type of practice
2. Outcome of the intervention by the Physicians' Committee, including improvement or recovery, treatment in progress, refusal of assistance, retirement or departure from the State, death, suicide, resumed abuse, and unconfirmed impairment.
3. Type of impairment including alcohol abuse, drug abuse, alcohol and drug abuse, and psychiatric, senility, and physical problems.

B. Data that are compiled for such a report will not reveal any personally identifiable information about the reported physician. The report will be submitted to the Commissioner of Health and the Director of the Division of Alcoholism and Alcohol Abuse on or before January 1, 1983.

Comment

MSSNY looks forward to bringing this offer of help to New York State physicians who may be afflicted with these life-threatening but very treatable illnesses.

Elmira Medical Arts Center
Elmira, New York 14901

SOS!

The Physicians' Committee is seeking additional members to make intervention calls on troubled or impaired colleagues. Expertise in this field may come from training and professional experience, although often the most effective intervention is by those physicians who have had personal experience with an addictive disease and now have a substantial period of time invested in their own recovery. Anyone willing to consider participation in this work, please contact: Brian R. Nagy, M.D., chairman; Colter Rule, M.D., vice-chairman for New York City; and Allison B. Landolt, M.D., vice chairman for suburban counties around New York City, Medical Society of the State of New York, 420 Lakeville Road, P.O. Box 5404, Lake Success, New York 11042. The MSSNY Physicians' Committee hot-line number is (516) 488-7777.

Physicians' Overview of New York Law

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This compilation, as indexed, is intended to provide physicians with a general overview of certain New York State laws that affect aspects of medical practice. It is not a complete listing of all the laws that may affect a physician's practice. In some cases, excerpts from statutes have been quoted; in other cases, relevant sections have been paraphrased and some case law summarized. (Verbatim citations are in bold type)

Since excerpts can be misinterpreted when viewed in isolation, and amendments occur frequently, the full text of a relevant code section should always be consulted. Physicians are advised to consult with legal counsel knowledgeable in health-care matters for answers to specific questions. (The numerals and letters in parentheses following the § (section) numerals denote subdivisions, paragraphs, subparagraphs, etc. of citation)

Abortion

An abortional act is justifiable when committed on a female with her consent by a duly licensed physician acting: (1) under the reasonable belief that such is necessary to preserve her life, or (2) within 24 weeks from the commencement of her pregnancy—Penal Law, §125.05 (3)

> When an abortion is to be performed after the twelfth week of pregnancy it shall be performed only in a hospital and only on inpatient basis. When an abortion is to be performed after the twentieth week of pregnancy, a physician other than the physician performing the abortion shall be in attendance to take control of and to provide immediate medical care for any live birth that is the result of the abortion ....—**Public Health Law, §4164 (1)**
>
> Such child shall be accorded immediate legal protection under the laws of the State of New York, including but not limited to applicable provisions of the social services law, article five of the civil rights law and the penal law.—**Public Health Law, §4164 (2)**
>
> The medical records of all life-sustaining efforts put forth for such a live aborted birth, their failure or success, shall be kept by the attending physician. All other vital statistics requirements in the public health law shall be complied with in regard to such aborted child.—**Public Health Law, §4164 (3)**
>
> The opportunity to obtain medical treatment of an infant prematurely born alive in the course of an abortion shall be the same as the rights of an infant born spontaneously.—**Executive Law, §291 (3)**
>
> When the performing of an abortion on a human being or assisting thereat is contrary to the conscience or religious beliefs of any person, he may refuse to perform or assist in such abortion by filing a prior written refusal setting forth the reasons therefor with the appropriate and responsible hospital, person, firm, corporation or association, and no such hospital, person, firm, corporation, association shall discriminate against the person so refusing to act.—**Civil Rights Law, §79-i**

Anatomical gifts

Article 43 of the Public Health Law provides for the manner and requirements for executing anatomical gifts.

- I. Who may execute an anatomical gift
  - A. Any individual of sound mind and 18 years of age or more may give all or part of his body for any purpose specified in the public health law—Public Health Law, §4301 (1)
  - B. Any of the following persons, in the order of priority stated, may, when persons in prior classes are not available at the time of death, and in the absence of actual notice of contrary indications by the decedent, or actual notice of opposition by a member of any of the classes specified, in the following paragraphs 1, 2, 3, 4, or 5, give all or part of the decedent's body for any purpose specified in the public health law.
    1. the spouse
    2. a son or daughter 21 years of age or older
    3. either parent
    4. a brother or sister 21 years of age or older
    5. a guardian of the person of the decedent at the time of his death
    6. any other person authorized or under the obligation to dispose of the body

    —Public Health Law §4301 (2)

  If the donee has actual notice of contrary indication by the decedent or that the gift is opposed by a member of any of the preceding classes identified (1 to 5), the donee shall not accept the gift—Public Health Law, §4301 (3)

- II. Who May Become Donees and Purposes for which Anatomical Gifts may be made—Public Health Law, §4302
  - A. Any hospital, surgeon, or physician, for medical or dental education, research, advancement of medical or dental science, therapy, or transplantation, or
  - B. Any accredited medical or dental school, college, or university for education, research, advancement of medical or dental science, or therapy, or
  - C. Any bank or storage facility for medical or dental education, research . . .
  - D. Any specific donee, for therapy or transplantation needed by him
- III. Manner of Executing Anatomical Gifts—Public Health Law, §4303
  - A. By will; the gift becomes effective upon death of the testator without waiting for probate
  - B. By document other than a will. The gift becomes effective upon the death of the donor. The document must be signed by the donor in the presence of two witnesses who must sign the document in the donor's presence.

Delivery of the document during the lifetime of the donor is not necessary

C. The gift may be made either to a specified donee or without specifying the donee

D. The donor may designate the surgeon or physician to carry out the appropriate procedures

IV. Delivery of Document

If the gift is made to a specified donee the gift document may be delivered to the donee, although delivery is not necessary to make the gift valid. The gift document, or an executed copy thereof, may be deposited in any hospital, bank, storage facility, or registry office that accepts it for safekeeping—Public Health Law, §4304

V. Revocation of Gift—Public Health Law, §4305

A. If the will, card, or other document has been delivered to the donee, the donor may amend or revoke the gift by:
   1. execution and delivery to the donee of a signed statement, or
   2. an oral statement of revocation made in the presence of two persons, communicated to the donee, or
   3. an oral statement during a terminal illness or injury addressed to an attending physician and communicated to the donee, or
   4. a signed card or document, found on his person or in his effects

B. Any document or gift that has not been delivered to the donee may, in addition to the methods specified above, be revoked by destruction, cancellation, or mutilation of the document and all executed copies thereof

C. Any gift, made by will, may be revoked or amended in the manner provided for revocation or amendment of wills

VI. Rights and Duties at Death—Public Health Law, §4306

A. The donee may accept or reject the gift

B. If the donee accepts a gift of the entire body, he may, subject to the terms of the gift, authorize embalming and the use of the body in funeral services

C. If the gift is of a part of the body, the donee, upon the death of the donor and prior to embalming, may cause the part to be removed without unnecessary mutilation. After removal of the part, custody of the remainder of the body vests in the surviving spouse, next of kin, or other persons under obligation to dispose of the body

D. The death must be certified by the physician who attends the donor at his death and one other physician, neither of whom shall participate in the procedure for removing or transplanting the part.

E. Any person who acts in good faith in accord with the terms of Article 43 or the anatomical gifts laws of another state is not liable for damages in any civil action or subject to prosecution in any criminal proceeding.

Autopsy and dissection

I. Right to Perform—Public Health Law, §4209

No person shall make any incision preparatory to or during an autopsy except:

A. A duly licensed medical physician or osteopathic physician

B. A resident physician

C. A medical intern

D. A student in a registered medical school or chiropractic college under the supervision of the professor or teacher

E. An instructor of anatomy

II. Right to Dissect.

The right to dissect the body of a deceased person exists:

A. In cases prescribed by special statutes

B. When the dissection is performed by or at the direction of:
   1. a coroner who is a physician licensed to practice in the state, or
   2. a coroner's physician, or
   3. a medical examiner

C. Whenever and so far as the husband, wife or next of kin of the deceased, being charged with the duty of burial;
   1. may authorize dissection for the sole purpose of ascertaining the cause of death, or
   2. may authorize dissection for any other purpose by written instrument which shall specify the purpose and extent of the dissection so authorized; or

D. Whenever any district attorney in this state, in the discharge of official duties . . . may exhume, take possession of, and the body of a deceased person . . . and submit the same to a proper physical or chemical examination . . . and the same shall be made on the order of any justice of the supreme court of this state, or the county judge . . .—Public Health Law, §4210

Biennial registration

A physician must register biennially with the State of New York Department of Education to practice in this state. Physicians must register by January 1 of each odd-numbered year—Education Law, §6502, Rules of the Commissioner of Education, 8 *N.Y.C.R.R.* (*New York Codes, Rules and Regulations*) Part 78

Registration certificates must be conspicuously displayed by each practitioner in all offices where he practices. In instances where the practitioner serves in more than one professional office, duplicate registration certificates may be obtained by applying to the State of New York Department of Education—8 *N.Y.C.R.R.* §78.3

Birth certificates—Public Health Law §4130

The birth of each child born alive in this state must be registered within five days after the date of birth by

> filing with the registrar of the district in which the birth occurred a certificate of such birth . . .—Public Health Law §4130(2)

Where a physician or nurse-midwife was in attendance upon the birth, it is the duty of such physician or nurse-midwife to file said certificate—Public Health Law §4130(3)

Blood bank

A facility for the collection, or the processing or storage of human blood or blood derivatives, or from which or by means of which human blood or blood derivatives are distributed or otherwise available—Public Health Law, §571 (2) (See "Clinical laboratory" section, following)

Child abuse—Title 6, Social Services Law

Physicians are included among these persons who must report or cause a report to be made when they have reasonable cause to suspect that a child coming before them in their professional or official capacity is an abused or neglected child—Social Services Law, §413

Reports of suspected child abuse or maltreatment must be made immediately by telephone and in writing within 48 hours after the oral report. Oral reports shall be made to the Statewide Central Register of Child Abuse and Maltreatment or to a local child protective service. Written reports are to be made on forms supplied by the Commissioner of Social Services—Social Services Law, §415

A physician treating a child may keep the child under his custody without the consent of the parent or guardian, whether or not additional medical treatment is required, if the circumstances or condition of the child are such that continuing in his place of residence or in the care and custody of the patient, guardian, custodian or other person responsible for the child's care presents an imminent danger to the child's life or health—Social Services Law, §417

Any person who in good faith carries out any of the activities provided in Title 6 of the Social Services Law has immunity from liability, civil or criminal. In any proceeding, the good faith of any person required to report cases of child abuse or maltreatment is presumed—Social Sevices Law, §419

Clinical laboratory—Source: Title V, Public Health Law

Clinical laboratory is defined as a facility for the microbiological, serological, chemical hematological, biophysical, cytological or pathological examination of materials derived from the human body for the purpose of obtaining information for the diagnosis, prevention, or treatment of disease or the assessment of medical condition—Public Health Law, §571 (1)

No person may act as a laboratory director of a laboratory (outside the City of New York) unless a valid certificate of qualification has been issued to him by the State of New York Department of Health—Public Health Law, §572

No person may act as a laboratory director of a laboratory located within the City of New York unless a certificate of qualification has been issued to him by the City of New York Department of Health pursuant to the New York City Health Code—Public Health Law, §572

No person may own or operate a clinical laboratory or blood bank, solicit or accept a specimen for laboratory examination or collect, process or store human blood or blood derivatives, outside of the City of New York unless a valid laboratory permit has been issued by the State of New York Department of Health—Public Health Law, §574

No person may own or operate a clinical laboratory or blood bank within the City of New York, unless a valid laboratory permit has been issued by the City of New York Department of Health pursuant to the New York City Health Code—Public Health Law, §574 (2)

Title V of the Public Health Law is applicable to all laboratories within the State except for those laboratories operated by the State or Federal government, or by a licensed physician, osteopath, dentist, or podiatrist who performs laboratory procedures, personally or through his employees, solely, as an adjunct to the treatment of his patient—Public Health Law, §579

Payment of services rendered by clinical laboratories. Subject to enumerated exceptions under the General Business Law, purveyors of clinical laboratory services must bill the recipient of such services directly. Fee splitting between clinical laboratories and physicians is forbidden—General Business Law, §394-e (See Fee splitting, following)

Communicable diseases

Every physician shall immediately give notice of every case of communicable disease required by the department (State of New York Department of Health) to be reported to it, to the health offices of the local health district where such disease occurs—Public Health Law, §2101 (List of "communicable diseases" provided under section 2.1 of the State Sanitary Code)

> It shall be the duty of every physician to report to the city, county or district health offices, within whose jurisdiction such patient is, the full name, age and address of every person apparently affected with a communicable disease or any outbreak of communicable disease, together with the name of the disease, within 24 hours from the time the case is first seen by him, and such report shall be by telephone or telegram if indicated, and shall also be in writing, except that the written notice may be omitted with the approval of the State Commissioner of Health . . .—**State Sanitary Code, 10 N.Y.C.R.R. §2.10**

. . . cases of gonorrhea and syphilis shall be reported in writing and that the patient's initials may be given in lieu of the patient's name. The physician shall keep a record of each case reported by initials and the corresponding name of the patient together with his address. The name and address of the patient shall be reported to the local or state health official to whom the attending physician is required to report such case, upon the special request of such official.—**State Sanitary Code, 10 *N.Y.C.R.R.* §2.10 (b)** (In case of communicable diseases found in New York City, the list of communicable diseases to be reported and instructions for reporting should be obtained from the City of New York Department of Health

Confidentiality

Generally, the physician-patient privilege is personal to the patient. It is advisable for the physician to require written authorization from the patient prior to the release of any medical information (See Physician-patient privilege and reporting, mandatory sections, following)

Controlled substances

Because the scope of the statutes and regulations is broad, only legal references relating to where this topic may be found are provided. Statutory Source: Article 33 Public Health Law:

§3330—Schedule 1 substances
§3331—Scheduled substances administering and dispensing by practitioners
§3332—Making of official New York State prescriptions for scheduled substances
§3333—Dispensing upon official New York State prescription
§3334—Emergency prescription for schedule II drugs
§3335—Making of written prescriptions for controlled substances
§3336—Dispensing upon written prescription
§3337—Oral prescriptions schedule III, IV and V substances
§3338—Official New York State prescription forms
§3339—Refilling of prescriptions for controlled substances

Part 80 Administrative Rules and Regulations of the State of New York Department of Health (10 New York Codes, Rules and Regulations §§80.1–80.133)

§80.66—Schedule 1 substances
§80.67—Schedule II substances
§80.68—Emergency oral prescriptions for schedule II substances
§80.69—Schedule III, IV and V substances
§80.70—Oral prescriptions for schedule III, IV and V substances
§80.71—Practitioners; dispensing schedule II substances
§80.72—Practitioners; dispensing requirements

Patient Reporting. Every attending or consulting practitioner must report to the State of New York Department of Health regarding any patient under treatment who is an addict or habitual user of any narcotic drug. Such reports are kept confidential and may be utilized for statistical, epidemiological or research purposes—Public Health Law, §3372

Death certificates

The death of each person must be registered immediately and not later than 72 hours—Public Health Law, §4140 (1)

The medical certificate must be made, dated, and signed by the physician, if any, last in attendance on the deceased—Public Health Law, §4141 (4) (a)

Discipline, grounds for—Education Law §6509

Each of the following is defined by law as professional misconduct:

1. Obtaining the license fraudulently
2. Practicing the profession fraudulently, beyond its authorized scope, with gross incompetence, with gross negligence on a particular occasion or negligence or incompetence on more than one occasion
3. Practicing the profession while the ability to practice is impaired by alcohol, drugs, physical disability, or mental disability
4. Being habitually drunk or being dependent on, or a habitual user of narcotics, barbiturates, amphetamines, hallucinogens, or other drugs having similar effects
5.
    a. Being convicted of committing an act constituting a crime under:
        i. New York State law or,
        ii. Federal law or,
        iii. The law of another jurisdiction and which, if committed within this state, would have constituted a crime under New York State law;
    b. Having been found guilty of improper professional practice or professional misconduct by a duly authorized professional disciplinary agency of another state where the conduct upon which the finding was based would, if committed in New York State, constitute professional misconduct under the laws of New York state;
    c. Having been found to be in violation of the applicable provisions of title seven of article thirty-three of the public health law by the commissioner of health, (Offenses and violations under the Controlled Substances Act)
6. Refusing to provide professional service to a person because of such person's race, creed, color, or national origin

7. Permitting, aiding or abetting an unlicensed person to perform activities requiring a license

8. Practicing the profession while the license is suspended, or willfully failing to register or notify the department of any change of name or mailing address, or, of a professional service corporation willfully failing to comply with sections fifteen hundred three and fifteen hundred fourteen of the business corporation law (Filing Requirements for Professional Corporations)

9. Committing unprofessional conduct, as defined by the Board of Regents in its rules or by the commissioner in regulations approved by the Board of Regents (A copy of the Rules of the New York State Board of Regents (8 *N.Y.C.R.R.* Part 29) may be obtained by contacting the office of General Counsel of the Medical Society of the State of New York)

10. A willful violation by a licensed physician of subdivision eleven of section two hundred thirty of the Public Health Law, (See Reporting, mandatory section following)

Fee splitting. A license may be revoked, suspended or annulled for any physician who:

> . . . has directly or indirectly requested, received or participated in the division, transference, assignment, rebate, splitting or refunding of a fee for, or has directly requested, received or profited by means of a credit or other valuable consideration as a commission, discount or gratuity in connection with the furnishing of professional care, or service, including x-ray examination and treatment . . .—**Education Law, §6509-a**

(The section does not prohibit physicians practicing in partnerships, corporations, or medical groups from sharing, dividing, or apportioning fees in accordance with a partnership or other agreement)

Drug subsitution

Every prescription written in this state must be on prescription forms containing two lines for the prescriber's signature. The words "substitution permissible" must appear beneath the signature line in the lower right hand corner of the prescription form. The words "dispense as written" must appear beneath the signature line in the lower left hand corner. The following words must be conspicuously imprinted on the prescription form: "This prescription will be filled generically unless physician signs on line stating 'dispense as written'."—**Education Law, §6810 (6) (a)**

Emergency medical technician

> . . . an individual who meets the minimum requirements established by regulations . . . who is responsible for administration or supervision of initial emergency medical assistance and handling and transportation of sick, disabled or injured persons—**Public Health Law, §3001 (7)**

Advanced emergency medical technician.

> . . . an emergency medical technician who has satisfactorily completed an advanced course of training approved by the state council under regulations . . .—**Public Health Law, §3001 (7–a)** (Regulations found in 10 *N.Y.C.R.R.* Part 800)

"Good Samaritan" laws

> . . . any licensed physician who voluntarily and without the expectation of monetary compensation renders first aid or emergency treatment at the scene of an accident or other emergency, outside a hospital, doctor's office or any other place having proper and necessary medical equipment, to a person who is unconscious, ill or injured, shall not be liable for damages for injuries alleged to have been sustained by such person or for damages for the death of such person alleged to have occurred by reason of an act or omission in the rendering of such first aid or emergency treatment unless it is established that such injuries were or such death was caused by gross negligence on the part of such physician . . .—**Education Law, §6527 (2)**

Similar provisions pertain to: Dentists—Education Law, §6611 (6); Registered Professional Nurse and Licensed Practical Nurse—Education Law, §6909 (1); Voluntary Ambulance Service, Emergency Medical Technicians, Advanced Emergency Medical Technicians—Public Health Law, §3031 (1)

"Gunshot wounds"

Physicians attending or treating cases involving certain wounds must report to the local police authorities. Wounds to be reported include any case involving a ". . . bullet wound, gunshot wound, powder burn or any other injury arising from or caused by the discharge of a gun or firearm, and every case of a wound which is likely to or may result in death and is actually or apparently inflicted by a knife, icepick or other sharp or pointed instrument . . . ."—**Penal Law, §265.25**
The failure to make such report is a class A misdemeanor.

Hospital staff privileges

> It shall be an improper practice for the governing body of a hospital to refuse to act upon an application for staff membership or professional privileges or to deny or withhold from a physician, podiatrist or dentist staff membership or professional privileges in a hospital, or to exclude or expel a physician . . . from staff membership in a hospital or curtail, terminate or diminish in any way a physician's . . . professional privileges in a hospital, without stating the reasons therefor, or if the reasons stated are unrelated to standards of patient care, patient welfare, the objectives of the institution or the character or competency of the applicant.—**Public Health Law, §2801-b**

Complaints regarding improper practices in hospital appointments and extension of privileges may be filed with the Public Health Council.

Informed consent

Unless medically contraindicated, a physician should explain the medical or surgical procedure to the patient so that the patient may make an informed choice as to whether to consent.

Where circumstances permit, the patient should be told (1) the diagnosis, (2) the general nature of the contemplated procedure, (3) the risks involved, (4) the prospects of success, (5) the prognosis if the procedure is not performed, and (6) alternative methods of treatment, if any.*

Informed consent has been codified in New York as follows:

1. Lack of informed consent means the failure of the person providing the professional treatment or diagnosis to disclose to the patient such alternatives thereto and the reasonably foreseeable risks and benefits involved as a reasonable medical practitioner under similar circumstances would have disclosed, in a manner permitting the patient to make a knowledgeable evaluation
2. The right of action to recovery for medical malpractice based on a lack of informed consent is limited to those cases involving either:
   A. non-emergency treatment, procedure or surgery, or
   B. a diagnostic procedure which involved invasion or disruption of the integrity of the body
3. For a cause of action therefor it must also be established that a reasonably prudent person in the patient's position would not have undergone the treatment or diagnosis if he had been fully informed and that the lack of informed consent is a proximate cause of the injury or condition for which recovery is sought
4. It shall be a defense to any action for medical malpractice based upon an alleged failure to obtain such an informed consent that:
   A. the risk not disclosed is too commonly known to warrant disclosure; or
   B. the patient assured the medical practitioner he would undergo the treatment, procedure or diagnosis regardless of the risk involved, or the patient assured the medical practitioner that he did not want to be informed of the matters to which he would be entitled to be informed; or
   C. consent by or on behalf of the patient was not reasonably possible; or
   D. the medical practitioner, after considering all of the attendant facts and circumstances, used reasonable discretion as to the manner and extent to which such alternatives or risks were disclosed to the patient because he reasonably believed that the manner and extent of such disclosure could reasonably be expected to adversely and substantially affect the patient's condition.—**Public Health Law, §2805-d**

Jury duty

A practicing physician is exempt from jury duty. The exemption applies only if claimed, and does not automatically disqualify such person from jury duty—**Judiciary Law, §512**

Licensure

For answers to questions in this area, please contact the Medical Society of the State of New York or the State of New York Department of Education.

Medical records

According to regulations, medical records must be kept to accurately reflect the evaluation and treatment of the patient. Unless otherwise required by law, patient records must be retained for at least six years (from the last date of treatment). Obstetrical records and records of minor patients must be retained for at least six years, and until one year after the minor patient reaches the age of 21 years—Rules of the New York State Board of Regents 8 *N.Y.C.R.R.* §29.2 (a) (3)

> Upon the written request of any competent patient, parent or guardian of an infant, or committee for an incompetent, an examining, consulting or treating physician or hospital must release and deliver, exclusive of personal notes of the said physician or hospital, copies of all x-rays, medical records and test records including all laboratory tests regarding that patient to any other designated physician or hospital, provided, however, that such records concerning the treatment of an infant patient for veneral disease or the performance of an abortion operation upon such infant patient shall not be released or in any manner be made available to the parent or guardian of such infant. Either the physician or hospital incurring the expense of providing copies of x-rays, medical records and test records including all laboratory tests pursuant to the provisions of this section may impose a reasonable charge to be paid by the person requesting the release and deliverance of such records as reimbursement for such expenses.—**Public Health Law, §17**

Recently, the Supreme Court, Albany County, declared §29.2(a) (6) of the Rules of the New York State Board of Regents to be invalid for conflicting with §17 of the Public Health Law. This decision is subject to appeal. §29.2 (a) (6) provides that unprofessional conduct includes, upon a patient's written request, failing to make available to a patient, or to another licensed health practitioner consistent with that practitioner's authorized scope of practice, copies of medical records, test records or x-rays. Anyone may obtain additional information concerning the court ruling by contacting the Office of General Counsel, Medical Society of the State of New York.

Medicare and Medicaid

Due to the length of statutes and regulations, the inclusion of limited material is not possible. For answers to specific questions in this area, please contact the Medical Society of the State of New York, Division of Medical Services.

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Medicine—definition

> The practice of the profession of medicine is defined as diagnosing, treating, operating or prescribing for any human disease, pain, injury, deformity or physical condition.—**Education Law, §6521**

Only a person licensed or otherwise authorized under the Education Law may practice medicine or use the title "physician"—Education Law, §6522

Mental illness—hospitalization—(Source: Mental Hygiene Law, Article 9)

Article 9 of the Mental Hygiene Law provides various procedures in which a person may be hospitalized as a mentally ill patient and provides the rights of such patients, including the right to assistance from the Mental Health Information Service and the right to court review to determine the need for continued hospitalization. Because of the volume of material, this article will mainly focus on the sections of the Mental Hygiene Law that provide the procedures for hospitalization and those sections that may have particular import to physicians. References to other provisions, including hearing requirements, will only be briefly referred to by statutory sources.

A physician is disqualified from acting as an examining physician in the following cases—**Mental Hygiene Law, Article 9, §9.05 (a):**

1. If he is a relative of the person applying for the admission or of the person alleged to be mentally ill
2. If he is a manager, trustee, visitor, proprietor, officer, director, or stockholder of the hospital in which the patient is hospitalized or to which it is proposed to admit such person . . . or if he has any pecuniary interest, directly or indirectly, in such hospital. (the receipt of fees, privileges or compensation for treating or examining patients in such hospitals is not deemed to be a pecuniary interest)
3. If he is on the staff of a proprietary facility to which it is proposed to admit such person

A certificate must show that the person is mentally ill and must be based on an examination of the person alleged to be mentaly ill made within 10 days prior to the admission—§9.05 (b)

Notice to all patients of their rights and of the availability of the Mental Health Information Service—§9.07

Voluntary Admission. The director of any hospital may receive as a voluntary patient any suitable person in need of care and treatment. If the person is under sixteen years of age, the written application must be made by a parent, legal guardian or next of kin of the person. If the person is over sixteen years of age but under eighteen years of age, the director may, in his discretion, admit the person on his own application.

If the director of the hospital feels that the voluntary patient is in need of involuntary care and treatment, he may hold the patient up to 72 hours after he has received written notice of the patient's desire to leave the hospital. If the director wishes to hold the patient beyond 72 hours, he must apply to Supreme Court or County Court for an order authorizing involuntary retention of the patient. If the court determines that the patient is mentally ill and in need of retention for involuntary care and treatment, the court may issue an order authorizing retention for a period not exceeding 60 days from the date of the order. Further application for retention of the patient may be made thereafter for periods not to exceed six months, one year and two years, respectively—§9.13

Informal admission. The director of any hospital, approved by the Commissioner of Mental Health for such purpose, may receive any suitable person as an informal patient. Such patient need not make any formal or written application and shall be free to leave at any time after such admission—§9.15

Review of status of voluntary and informal admissions—§9.25

Involuntary admission on medical certification. The director of a hospital may receive any person alleged to be mentally ill and in need of involuntary care and treatment upon the certificate of two examining physicians, accompanied by an application for the admission of such person. The examination may be conducted jointly but each examining physician must execute a separate certificate.

The application must have been executed within 10 days prior to the admission. It may be executed by any one of the following:

1. Any person with whom the person resides;
2. The father or mother, husband or wife, brother or sister, or the child of such person, or the nearest available relative;
3. The committee of the person;
4. An officer of any public or well recognized charitable institution where the alleged mentally ill resides;
5. The director of community services or social services official, as defined in the Social Services Law;
6. The director of the hospital in which the patient is hospitalized;
7. The director of person in charge of a facility providing care to alcoholics or substance abusers, or substance dependent persons;
8. The director of the division of youth pursuant to the Executive Law

If the examining physician knows that the person he is examining has been under prior treatment, he must insofar as possible, consult with the physician or psychologist who furnished the prior treatment.

The director of the hospital must have the person examined forthwith by a physician who is a member of the psychiatric staff (other than one of the original examining physicians whose certificate accompanied the application)—§9.27

Notice requirements for patients admitted by involuntary admission on medical certificates—§9.29

Involuntary admission on medical certification; patient's right to a hearing. At any time prior to the expiration of sixty days from the date of involuntary admission, the patient, any relative or friend, or the Mental Health Information Service may request a hearing on the question of the need of involuntary care and treatment by giving written notice to the director. The director must thereupon provide a copy of the notice with a record of the patient to the Supreme Court in the county designated by the applicant, or if no county has been designated, to the Supreme Court in the county where the hospital is located.

The court which receives such notice must fix the date of the hearing no later than five days from the receipt of the notice. Testimony is heard by the court, and the court may examine the alleged mentally ill in or out of court, if it is deemed advisable by the court—§9.31

Court authorization to retain an involuntary patient. If the director determines that a patient admitted upon application supported by medical certification for whom there is no court order authorizing retention for a specific period, is in need of retention and the patient does not agree to remain as a voluntary patient, the director must apply to the Supreme Court or the County Court for an order authorizing continued retention. Such application must be made no later than 60 days from the date of involuntary admission on application supported by medical certification or within 30 days from the date of an order denying an application for the patient's release pursuant to §9.31, whichever is later.

Written notice must be provided to the persons who were served with notice of the admission. If within 5 days (excluding Sundays and holidays) neither the Mental Health Information Service nor any other party has requested a hearing, the court may authorize continued retention for a period not to exceed six months from the date of the order. If the patient or anyone on his behalf or the Mental Health Information Service requests a hearing, a hearing will be held in like manner as is provided for hearings in §9.31. Succeeding orders for retention are obtained by the same manner except the patient or anyone on his behalf, or the Mental Health Information Service may request that the patient be personally brought before the court, in which case, the court may not grant an order for periods of one year or longer unless the patient has appeared personally before the court. In any case, the period for continued retention under this subdivision may not be for a period longer than one year from the date of the order. Subsequent orders may not exceed two years—§9.33

Review of court authorization to retain an involuntary patient—§9.35

Involuntary admission on certificate of a director of community services or his designee. The director of a hospital, upon application by a director of community services or any examining physician designated by him, may receive as a patient any person who, in the opinion of the director of community services, has a mental illness for which immediate inpatient care and treatment in a hospital is appropriate and which is likely to result in serious harm to himself or others. "Likelihood of serious harm" is defined as:

1. Substantial risk of physical harm to himself as manifested by threats of or attempts at suicide or serious bodily harm or other conduct demonstrating that he is dangerous to himself, or
2. A substantial risk of physical harm to other persons as manifested by homicidal or other violent behavior by which others are placed in reasonable fear or serious physical harm

The need for immediate hospitalization must be confirmed by a staff physician of the hospital prior to admission. Within 72 hours, excluding Sundays and holidays, after such admission, if the patient is to be retained beyond such time, and he does not agree to remain as a voluntary patient, the certificate of another examining physician who is a member of the psychiatric staff of the hospital must be filed in the hospital. Such certificate must show that the patient is in need of continued involuntary care and treatment. The further retention of the patient is subject to the same provisions for notice, hearing, review and judicial approval for continued retention or transfer as in Involuntary Admission on Application Supported by Medical Certification—§9.37

Emergency admissions for immediate observation care and treatment. The director of any hospital approved by the commissioner of mental health to admit patients pursuant to the procedure may receive and retain patients for a period of 15 days any person alleged to have a mental illness for which immediate observation, care, and treatment in a hospital are appropriate and which is likely to result in serious harm to himself or others. A staff physician of the hospital must find that the person qualifies for hospitalization under this section. The person may not be retained for a period of more than 48 hours unless within such period another physician who is a member of the psychiatric staff confirms the finding of the need for involuntary hospitalization. If it is determined that the patient requires retention beyond 15 days and the patient will not remain voluntarily, the patient may only be retained in accordance with procedures governing the application for involuntary admission on application supported by medical certification—§9.39

Minors, treatment of—Public Health Law, §2504

1. Any person who is eighteen years of age or older, or is the parent of a child or has married, may give effective consent for medical, dental, health and hospital services for himself or herself, and the consent of no other person shall be necessary.
2. Any person who has been married or who has borne a child may give effective consent for medical, dental, health and hospital services for his or her child.
3. Medical, dental, health and hospital services may be rendered to persons of any age without the consent of a parent or legal guardian when, in the physician's judgment an emergency exists and the person is in immediate need of medical attention and an attempt to secure consent would result in delay of treatment which would increase the risk to the person's life or health.
4. Anyone who acts in good faith based on the representation by a person that he is eligible to consent pursuant to the terms of this section shall be deemed to have received effective consent.

A licensed physician, or in a hospital, a staff physician may diagnose, treat or prescribe for a person under the age of twenty-one years without the consent or knowledge of the parents or guardian of said person, where such person is infected with a venereal disease, or has been exposed to infection with venereal disease.—**Public Health Law, §2305**

Any person of the age of seventeen years or over shall be eligible to donate blood in any voluntary and noncompensatory blood programs without the necessity of obtaining parental perrmission or authorization.—**Public Health Law, §3123**

There have been numerous court decisions that have held that minors who are capable of giving informed consent have a constitutional right to have sex-related health services, including contraception and abortion, without parental consent; that is, *Planned Parenthood of Central Missouri* v. *Danforth* (U.S. Supreme Court, 1976). Since this is an extremely sensitive area, physicians are encouraged to consult with private counsel or the Medical Society of the State of New York when faced with specific problems.

Nurse—R.N. (*definition*)

The practice of the profession of nursing as a registered professional nurse is defined as diagnosing and treating human responses to actual or potential health problems through such services as case-finding, health teaching, health counseling, and provision of care supportive to or restorative of life and well-being and executing medical regimens prescribed by a licensed or otherwise legally authorized physician or dentist. A nursing regimen shall be consistent with and shall not vary any existing medical regimen.—**Education Law, §6902 (1)**

Nurse—L.P.N. (*definition*)

The practice of nursing as a licensed practical nurse is defined as performing tasks and responsibilities within the framework of case-finding, health teaching, health counseling, and provision of supportive and restorative care under the direction of a registered professional nurse or licensed or otherwise legally authorized physician or dentist.—**Education Law, §6902 (2)**

Obstetrics—required tests

Every physician attending pregnant women in the state shall in the case of every woman so attended take or cause to be taken a sample of blood of such woman at the time of first examination, and submit such sample to an approved laboratory for a standard serological test for syphilis.—**Public Health Law, §2308 (1)**

Each physician providing gynecological obstetrical, contraceptive, sterilization, or termination of pregnancy services or treatment shall offer to administer to every resident of the State of New York coming to such physician for such services or treatment, appropriate tests for the detection of syphilis and gonorrhea.—**Public Health Law, §2308-a (2)**

The physician or nurse-midwife to be in attendance at the birth of a child shall inform the expectant mother, in advance of the birth, of the drugs that such physician or nurse-midwife expects to employ during the pregnancy and of the obstetrical and other drugs that such physician or nurse-midwife expects to employ at birth and of the possible effects of such drugs on the child and mother.—**Public Health Law, §2503**

Physician's assistants and specialist's assistants

Sources: **Education Law, Article 131-B;** Regulations of the Commissioner of Education, 8 *N.Y.C.R.R.* §60.8; Administrative Rules and Regulations of the State Department of Health, 10 *N.Y.C.R.R.* Part 94

. . . a physician's assistant may perform medical services, but only when under the supervision of a physician and only when such acts and duties as are assigned to him are within the scope of practice of such supervising physician.—**Education Law, §6542 (1)**

Supervision shall be continuous but shall not be construed as necessarily requiring the physical presence of the supervising physician at the time and place where such services are performed.—**Education Law, §6542 (3)**

No physician shall employ or supervise more than two physician's assistants and two specialist's assistants in his private practice.—**Education Law, §6542 (4)**

No physician may supervise more than six registered physician's assistants or registered specialist's assistants or any combination thereof employed by a hospital.—**10 *N.Y.C.R.R.* §94.2 (d)**

Physician-patient privilege

§4504 of the Civil Practice Law and Rules provides:

a. Unless the patient waives the privilege, a person authorized to practice medicine, registered professional nursing, licensed practical nursing, or dentistry shall not be allowed to disclose any information which he acquired in attending a patient in a professional capacity, and which was necessary to enable him to act in that capacity. The relationship of a physician and patient shall exist between a medical corporation, as defined in article forty-four of the public health law, a professional service corporation organized under article fifteen of the business corporation law to practice medicine, and the patients to whom they respectively render professional medical service.

b. A dentist shall be required to disclose information necessary for identification of a patient. A physician, dentist or nurse shall be required to disclose information indicating that a patient who is under the age of sixteen years has been the victim of a crime.

c. A physician or nurse shall be required to disclose any information as to the mental or physical condition of a deceased patient privileged under subdivision (a), except information which would tend to disgrace the memory of the decendent, either in the absence of an objection by a party to the litigation or when the privilege has been waived:

   1. by the personal representative, or the surviving spouse, or the next of kin of the decedent; or
   2. in any litigation where the interests of the personal representative are deemed by the trial judge to be adverse to those of the estate of the decedent, by any party in interest; or
   3. if the validity of the will of the decedent is in question, by the executor named in the will, or the surviving spouse or any heir-at-law or any of the next of kin or any other party in interest

(See Reporting, mandatory section, following)

Reporting, mandatory

I. **Reporting professional misconduct.** Physicians are included among the class of persons who must report to the Board for Professional Medical Conduct any information he has which reasonably appears to show that a physician is guilty of professional misconduct as defined by Section 6509 of the Education Law (See Discipline-grounds for). Such reports must remain confidential and may not be admitted into evidence in any administrative or judicial proceeding, except the Board may begin investigations on the basis of the reports received—Public Health Law, §230 (11) (a)

> Any person, organization, institution . . . who reports or provides information to the Board in good faith, and without malice shall not be subject to an action for civil damages or other relief as the result of such report.—**Public Health Law, §230 (11) (b)**

No physician is required to report any information discovered solely as a result of:

1. Participation in a mortality and/or morbidity conference, departmental meeting or a medical or tissue committee constituted pursuant to the bylaws of a hospital (Public Health Law §230 (11) (c) (i)), or
2. Participation and membership during a three-year demonstration period in a physician committee of the Medical Society of the State of New York or the New York State Osteopath Society whose purpose is to confront and refer to treatment physicians who are thought to be suffering from alcoholism, drug abuse or mental illness. (Demonstration period to commence on April 1, 1980 and terminate on March 31, 1983)—Public Health Law §230 (11) (c) (ii)

Physicians need not violate the physician-patient privilege and, therefore, no physician is required to report any information to the Board which such physician has learned solely as a result of treating another physician Public Health Law, §230 (11) (e)

II. **Reporting abuses of persons receiving care or services in residential health care facilities.** Physicians are included in the class of persons who must report to the State of New York Department of Health when they have reasonable cause to believe that a person receiving care in a residential health care facility has been physically abused, mistreated or neglected by any person other than a person receiving care or services in the facility—Public Health Law, §2803-d (1)

Also see: Birth certificate, Child abuse, Communicable diseases, Controlled substances, Death certificates, and Gunshot wounds sections, preceding.

Statute of limitations

A claim based on medical malpractice has a statute of limitations of two years, six months. In cases of continuous treatment, the period begins to run from the last date of treatment. Where the action is based on the discovery of a foreign object in the body of a patient, an action may be commenced within one year of the date of such discovery or of discovery of facts which would reasonably lead to such discovery, whichever is earlier—Civil Practice Law and Rules, §214-a

If a claim accrues in favor of an infant, the statute of limitations is tolled, that is, does not begin to run, until the infant reaches his 18th birthday. In an action based on medical malpractice that accrues on or after July 1, 1975, the infant has a maximum toll of 10 years—Civil Practice Law and Rules, §208

The statute of limitations does not automatically bar a claim but must be asserted by the defendant in his answer or by motion.

Utilization review

No individual who serves as a member of:

a. a committee established to administer utilization review in a hospital

b. a committee having the responsibility of evaluation and improvement of the quality of care rendered in a hospital or

c. any medical review committee of a local, county or state medical, dental, podiatry or optometrical society any such society itself, or a professional standards review organization or an individual, when such committee, subcommittee, society, organization or individual is involved in any medical review function described in (a) or (b), required by law, or any controversy involving:

1. any physician, dentist, podiatrist or optometrist or hospital administrator and a patient concerning the diagnosis, treatment or care of such patient or the fees therefor, or
2. any physician, dentist, podiatrist, optometrist or hospital administrator and a provider of medical dental, podiatric or optometrical services concerning any medical or health charges of such physician, dentist, podiatrist or optometrist

shall be liable in damages to any person for any action taken or recommendation made, by him within the scope of his function in such capacity provided that such individual has taken action or made recommendations within the scope of his function, without malice, and in the reasonable belief after reasonable investigation—Education Law, §6527 (3), par. 1

The proceedings and records of medical review functions described in the Education Law, Section 6527 (3) are not subject to discovery in a civil action. No person in attendance at a meeting when a medical review function (as described previously) is performed may be required to testify to matters presented at the committee meeting. The prohibition relating to discovery or testimony does not apply to the statements made by any person who is a party to an action or proceeding the subject matter of which was reviewed at such meeting—Education Law, §6527 (3), par. 2

Workers' compensation

Due to the length of statutes and regulations, the inclusion of limited material is not possible. For answers to specific questions in this area, please contact the Medical Society of the State of New York, Division of Medical Services.

X-ray technology (physician supervision)

"X-ray technology" means the use of x-rays or x-ray producing equipment on human beings for diagnostic or therapeutic purposes under the supervision of a licensed practitioner.—**Public Health Law, §3501 (1)**

"X-ray technician" means a person, other than a licensed practitioner, who uses x-ray on human beings and it shall include a person who actually handles x-ray equipment in the process of applying radiation on a human being under the supervision of a licensed practitioner.—**Public Health Law, §3501 (2)**

No person may practice x-ray technology or hold himself out as an x-ray technician unless, he is, licensed pursuant to the Public Health Law—Public Health Law, §3502

Administrative Rules and Regulations of the State of New York Department of Health, §89.3 (10 N.Y.C.R.R., Part 89)

a. The practice of X-ray technology shall include, but not be limited to, measuring and positioning patients, selecting and setting up exposure factors on X-ray equipment and making X-ray exposures. It shall not include developing X-ray film, preparing developing solutions, assisting patients into proper attire or onto the X-ray table or similar duties usually performed by a darkroom technician, attendant or aide.

b. The practice of X-ray therapy technology shall include setting up the treatment position, delivering the required daily dose prescribed by the physician, certifying the record of the technical details of the treatment, selecting the required filter and treatment distance, making beam directional shells and moulds, using diagnostic X-ray equipment for tumor localization, assisting the physicist in calibration procedure, and assisting in treatment planning procedures. It shall not include taking X-ray films for diagnostic purposes, or duties customarily performed by an attendant or aide.

Supervision of a licensed X-ray technician by a licensed practitioner shall require that such licensed practitioner, acting within the limits specified in the law under which the practitioner is licensed, shall determine that an X-ray exposure of a patient should be made and the part or parts of that patient's body which should be exposed, before a licensed X-ray technician may apply X-rays to a human being. Such supervision shall also require that only a licensed practitioner shall receive the exposed and processed X-ray film for the purpose of performing diagnostic interpretation. Supervision by a licensed practitioner shall not require that a licensed practitioner oversee the licensed X-ray technician in the scheduling of radiographic examination, in the measuring and positioning of patients, in the operation of X-ray equipment, or in the production and processing of radiographs.—**Administrative Rules and Regulations of the State of New York Department of Health, §89.4 (a) (10 *N.Y.C.R.R.*, Part 89)**

Office of the General Counsel
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Acknowledgment. The authors wish to extend their appreciation to Miss Barbara Lacey for her assistance in the preparation of this manuscript.

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A series of practical articles by and for physicians concerned with care of school-age children

School Health

NORMAN B. SCHELL, M.D., M.P.H., Editor

Editor's Note. Recommended by the Medical Society of the State of New York School Health Committee.

Sports Candidates' Questionnaire

In the firm belief that a current and pertinent history obtained from school athletes is essential to their medical evaluation and health protection, the School Health Committee has researched and developed a Sports Candidates' Questionnaire (Fig. 1 and Fig. 2). The prime purpose is to effectively screen these candidates before the onset of each sports season during the course of the school year in secondary schools.

This two-sided questionnaire contains: (1) key questions pertaining to recent medical history data and (2) a summary of past school medical records (such as history of any physical defects, problems, or chronic diseases). The student is reassured of the confidentiality of the answers and that "yes" answers do not mean automatic disqualification.

The school nurse and school physician must evaluate all "yes" answers to the questions and past medical record in the decision to: (1) accept for participation in the particular sport chosen, or (2) reject for participation, or (3) delay acceptance or rejection pending further workup and/or report by the personal physician of the prospective young athletes.

For example, question 4, asks about faintness or dizziness during heavy exertion or exercise. This

SPORTS CANDIDATES' QUESTIONNAIRE

NAME	DATE OF BIRTH				GRADE	ATHLETIC ACTIVITY

HISTORY SINCE LAST MEDICAL EXAM

ITEM	YES	NO	ITEM	YES	NO
1. ANY INJURIES REQUIRING MEDICAL ATTENTION?			6. A MAJOR OPERATION OR FRACTURE?		
2. ANY ILLNESS LASTING MORE THAN FIVE (5) DAYS?			7. TREATED IN A HOSPITAL OR EMERGENCY ROOM?		
3. TAKING ANY MEDICINE OR UNDER PHYSICIAN'S CARE AT THIS TIME?			8. ANY REASON WHY THIS PERSON CANNOT PARTICIPATE IN ANY OTHER ATHLETIC ACTIVITY?		
4. ANY FEELING OF FAINTNESS OR DIZZINESS DURING HEAVY EXERTION OR EXERCISE?			9. ANY KNOWN ALLERGIES?		
5. WEARS GLASSES OR CONTACT LENSES?			10. ANY CHRONIC DISEASE?		

IF YES * TO ANY OF ABOVE, DESCRIBE:

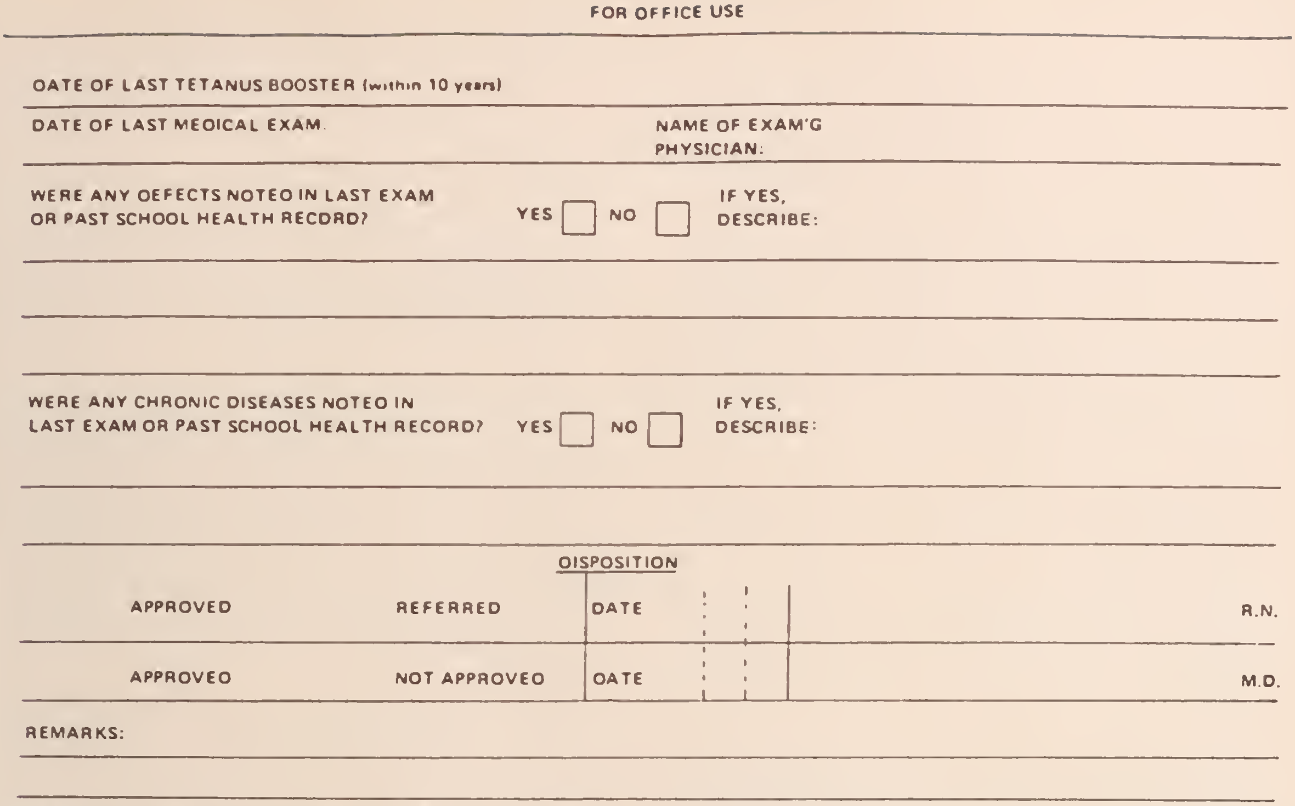
PERMISSION

WE UNDERSTAND CLEARLY THAT THE QUESTIONS ARE ASKED IN ORDER TO DECIDE IF THIS STUDENT IS IN A PROPER CONDITION TO PARTICIPATE IN THE ATHLETIC ACTIVITY NAMED AT TOP OF THIS FORM. THE ANSWERS ARE CORRECT AS OF THE DATE THIS FORM IS SIGNED. ALL ANSWERS WILL BE KEPT CONFIDENTIALLY IN HIS/HER HEALTH RECORD IN THE SCHOOL HEALTH OFFICE.

SIGNATURE OF PARENT/GUARDIAN	DATE	SIGNATURE OF STUDENT	DATE

* NOTE: "YES" ANSWERS TO ANY OF THESE QUESTIONS DO NOT MEAN AUTOMATIC DISQUALIFICATION FROM THE ATHLETIC ACTIVITY INDICATED. THEY WILL REQUIRE REVIEW AND EVALUATION BY THE SCHOOL PHYSICIAN.

FIGURE 1. Front side of Sports Candidates' Questionnaire to be completed by prospective student participant and parent.



FOR OFFICE USE

DATE OF LAST TETANUS BOOSTER (within 10 years)

DATE OF LAST MEDICAL EXAM

NAME OF EXAM'G PHYSICIAN:

WERE ANY DEFECTS NOTED IN LAST EXAM OR PAST SCHOOL HEALTH RECORD? YES ☐ NO ☐ IF YES, DESCRIBE:

WERE ANY CHRONIC DISEASES NOTED IN LAST EXAM OR PAST SCHOOL HEALTH RECORD? YES ☐ NO ☐ IF YES, DESCRIBE:

DISPOSITION

APPROVED	REFERRED	DATE		R.N.
APPROVED	NOT APPROVED	DATE		M.D.

REMARKS:

FIGURE 2. Reverse side of Sports Candidates' Questionnaire to be completed by school nurse and school physician in Student Health Office.

symptom has occurred in many cases of sudden death associated with exercise or exertion in an individual with an aberrant left coronary artery. A "yes" answer to this question would therefore be an indication for a presports electrocardiogram.

The guidelines 1, 2 of the AAP and AMA delineating the absolute and relative contraindications for contact and noncontact sports will be useful in the decision making process of the school physician.

It is the school physician who assumes the ultimate responsibility in evaluating physical fitness and approving the participation of all students in all school sports programs or team sports. He must also be the final authority in allowing an athlete to return to a specific sports program or team competition after he or she has suffered an injury or illness. Occasionally this decision involves prior consultation with the personal physician.

The Sports Candidates' Questionnaire which is displayed in this article is meant to be prepared by each school district on a 5″ by 8″ card for confidential filing in the School Health Office. Final decision regarding participation should be forwarded to appropriate team coaches and physical educators.

School Health Committee-MSSNY

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FRANK P. CAMMISA, JR., Medical student	New York

Bibliography

Committee on School Health: School Health: A Guide for Health Professionals, American Academy of Pediatrics, 1977.

The Athlete: A Guide for Medical Evaluation, American Medical Association, 1976.

Obituaries

Saverio F. Abenavoli, M.D., of Port Chester and Mamaroneck, died on April 28 at the age of 59. Dr. Abenavoli received his medical degree from the University of Messina in 1947. He was an assistant physician at St. Agnes Hospital and a physician in family practice at United Hospital. Dr. Abenavoli was a member of the American Academy of Family Physicians, the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Irwin Alper, M.D., of Utica, died on June 4 at the age of 79. Dr. Alper graduated in 1925 from Long Island College Hospital. He was a consulting otolaryngologist at Utica Psychiatric Center and an honorary member of the medical staff at St. Elizabeth's Hospital. Dr. Alper was a member of the Oneida County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Leon Allan Bryan, M.D., of New York City, died on January 25 at the age of 80. Dr. Bryan graduated in 1935 from Howard University Medical School. He was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Louis H. Berk, M.D., of New York City, died on October 21 at the age of 77. Dr. Berk graduated in 1928 from Indiana University School of Medicine. He was a Fellow of the American College of Cardiology and a member of the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph Berman, M.D., of Babylon and West Islip, died on May 23 at the age of 69. Dr. Berman graduated in 1941 from Middlesex University School of Medicine. He was a member of the American Academy of Family Physicians, the Suffolk County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Margaret Witter Barnard, M.D., of La Jolla, California, formerly of Tupper Lake, died on April 13 at the age of 84. Dr. Barnard graduated in 1923 from Cornell University Medical College. She was a Diplomate of the American Board of Preventive Medicine, Inc. (Public Health) and a member of the American Public Health Association, the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Harry S. Bikoff, M.D., of Fairlawn, New Jersey, formerly of Brooklyn, died on June 28 at the age of 86. Dr. Bikoff graduated in 1918 from University and Bellevue Hospital Medical College. He was a Diplomate of the American Board of Pediatrics and a member of the American Academy of Pediatrics, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Visudhi Chiarana-Angkur, M.D., of Rome, died on May 30, 1980, at the age of 39. Dr. Chiaranai-Angkur received his medical degree from the Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand, in 1965. He was an associate in surgery at the Rome Hospital and Murphy Memorial Hospital. Dr. Chiaranai-Angkur was a Diplomate of the American Board of Surgery and a member of the Oneida County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Sylvester Richard Daly, M.D., of Glenford, died on April 9 at the age of 77. Dr. Daly graduated in 1928 from Columbia University College of Physicians and Surgeons. He was a Diplomate of the American Board of Otolaryngology and a member of the Society of American Bacteriologists, the Academy of Medicine, the Rockland County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Alphonse DiMaio, M.D., of Flushing, died on May 17 at the age of 69. Dr. DiMaio graduated in 1936 from New York University College of Medicine. He was director of ophthalmology and an attending ophthalmologist at Flushing Hospital and Medical Center. Dr. DiMaio was a Diplomate of the American board of Ophthalmology and a member of the American Academy of Ophthalmology and Otolaryngology, the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Henry Charles Falk, M.D., of New York City, died on July 5 at the age of 91. Dr. Falk graduated in 1910 from Columbia University College of Physicians and Surgeons. He was a consulting obstetrician and gynecologist at Beth Israel Medical Center. Dr. Falk was a Diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Surgeons, and a member of the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

James Irving Farrell, M.D., of Utica, died on May 26 at the age of 77. Dr. Farrell graduated in 1929 from Harvard University Medical School. He was an ophthalmologist at The Faxton Hospital and the Children's Hospital and Rehabilitation Hospital and a consulting ophthalmologist at Little Falls Hospital. Dr. Farrell was a Diplomate of the American Board of Ophthalmology and a member of the

American Academy of Ophthalmology and Otolaryngology, the Utica Academy of Medicine, the Oneida County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Samuel G. Feuer, M.D., of Hollywood, Florida, formerly of Rockville Centre, died on June 25 at the age of 77. Dr. Feuer graduated in 1925 from University and Bellevue Hospital Medical College. He was a Diplomate of the American Board of Physical Medicine and Rehabilitation, a Fellow of the American Colllege of Physicians, and a member of the American Academy of Compensation Medicine, Inc., the American Academy of Physical Medicine and Rehabilitation, the American Geriatrics Society, the New York Academy of Medicine, the New York Society for Physical Medicine and Rehabilitation, the Nassau Academy of Medicine, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Gerard C. Gravina, M.D., of Deer Park, died on May 25 at the age of 64. Dr. Gravina graduated in 1942 from Marquette University School of Medicine. He was an assistant physician at Good Samaritan Hospital, West Islip. Dr. Gravina was a member of the Suffolk County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

George Ralph Horton, M.D., of Bridgeport, Connecticut, formerly of Brooklyn, died on May 7 in his 90th year. Dr. Horton graduated in 1915 from Jefferson Medical College of Philadelphia. He was a Diplomate of the American Board of Urology, a Fellow of the American College of Surgeons, and a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

William Oren Jackson, M.D., of Avoca, died on June 10 at the age of 79. Dr. Jackson graduated in 1927 from Columbia University College of Physicians and Surgeons. He was an honorary member of the medical staff at the Ira Davenport Memorial Hospital, Inc. Dr. Jackson was a member of the Steuben County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Otto E. Koenigsfeld, M.D., of Jamestown, died on March 29 at the age of 81. Dr. Koenigsfeld received his medical degree from the University of Breslau in 1923. He was an honorary physician in eye, ear, nose, and throat at Jamestown General Hospital and an attending in eye, ear, nose, and throat at Woman's Christian Association Hospital. Dr. Koenigsfeld was a member of the Chautauqua County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Min Chiu Li, M.D., of Mineola, died on February 12 at the age of 60. Dr. Li received his medical degree from the University of Mukden in 1944. He was a physician in internal medicine at Nassau Hospital. Dr. Li was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, and a member of the Endocrine Society and the American Association for Cancer Research.

Lillian Malcove, M.D., of New York City, died on June 1 at the age of 78. Dr. Malcove graduated in 1925 from the University of Manitoba Faculty of Medicine. She was a member of the American Psychiatric Association, the American Psychoanalytic Association, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Ignatius N. W. Olninck, M.D., of New York City, died on March 2 at the age of 92. Dr. Olninck received his medical degree from the University of Amsterdam in 1910. He was a Diplomate of the American Board of Psychiatry and Neurology (Neurology), a Diplomate of the American Board of Neurological Surgery, and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Jesse W. Overton, M.D., of Newburgh, died on June 17 at the age of 73. Dr. Overton graduated in 1935 from Syracuse University College of Medicine. He was chief of ophthalmology at St. Luke's Hospital and a consulting ophthalmologist and otolaryngologist at Tuxedo Memorial Hospital. Dr. Overton was a Diplomate of the American Board of Ophthalmology, a Diplomate of the American Board of Otolaryngology, a Fellow of the American College of Surgeons, and a member of the American Academy of Ophthalmology and Otolaryngology, the New York Academy of Medicine, the Orange County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Ralph Vito Pece, M.D., of Howard Beach, died recently in his 43rd year. Dr. Pece received his medical degree from the University of Bologna in 1965. He was a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Osborn Poor Perkins, M.D., of New York City, died on June 28 at the age of 83. Dr. Perkins graduated in 1922 from Columbia University College of Physicians and Surgeons. He was a Diplomate of the American Board of Ophthalmology and a member of the American Academy of Ophthalmology and Otolaryngology, the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Seta Torosdag Pecikyan, M.D., of Flushing and Forest Hills, died on June 23 at the age of 59. Dr. Pecikyan received her degree from the University of Istanbul in 1949. She was a clinical assistant physician at Bellevue Hospital. Dr. Pecikyan was a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

John Howard Powers, M.D., of Cooperstown, died on June 2 at the age of 83. Dr. Powers graduated in 1925 from Harvard University Medical School. He was an emeritus surgeon at Mary Imogene Bassett Hospital. Dr. Powers was a Diplomate of the American Board of Surgery and a member of the American Association for the Surgery of Trauma, the Otsego County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Oma Henry Price, M.D., of New York City, died on June 15 at the age of 85. Dr. Price graduated in 1924 from University and Bellevue Hospital Medical College. He was an associate dermatologist at Sydenham Hospital. Dr. Price was a member of the American Public Health Association, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Anthony M. Primelo, M.D., of Forest Hills, died on June 16 at the age of 50. Dr. Primelo received his medical degree from the University of Padova in 1957. He was director of psychiatry at Pilgrim Psychiatric Center. Dr. Primelo was a Diplomate of the American Board of Psychiatry and Neurology (Psychiatry) and a member of the American Psychiatric Association, the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Morris Levi Rower, M.D., of Chadwicks, died on June 30 at the age of 81. Dr. Rower graduated in 1924 from Tufts College School of Medicine. He was a member of the Utica Academy of Medicine, the Oneida County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Sidney Rubin, M.D., of Rochester, died on April 17 at the age of 71. Dr. Rubin graduated in 1936 from Syracuse University College of Medicine. He was an attending psychiatrist at Strong Memorial Hospital and a consulting psychiatrist at the Veterans Administration Hospital, Canandaigua. Dr. Rubin was a Diplomate of the American Board of Psychiatry and Neurology (Psychiatry), a Fellow of the American College of Physicians, and a member of the American Psychoanalytic Association, the Association for Research in Nervous and Mental Disease, the American Psychiatric Association, the Monroe County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph Gerard Terrence, M.D., of Brooklyn, died on December 23 at the age of 87. Dr. Terrence graduated in 1920 from Long Island College Hospital. He was a consulting physician at Kings County Hospital Center. Dr. Terrence was a Fellow of the American College of Physicians, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Herman G. Sandvoss, M.D., of New York City and Irvington, died on April 21 at the age of 81. Dr. Sandvoss received his medical degree from the University of Munich in 1923. He was a member of the American Occupational Medicine Association, the American Academy of Occupational Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph Shapiro, M.D., of Amityville, died on June 7 at the age of 71. Dr. Shapiro graduated in 1935 from the University of Maryland School of Medicine and College of Physicians and Surgeons. He was a consulting psychiatrist at South Oaks Hospital. Dr. Shapiro was a Diplomate of the American Board of Psychiatry and Neurology (Psychiatry) and a member of the American Psychiatric Association, the American Geriatrics Society, the Nassau Academy of Medicine, the Nassau County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Murray H. Silverstein, M.D., of Valley Stream, died on June 28 at the age of 57. Dr. Silverstein graduated in 1946 from Chicago Medical School. He was an associate ophthalmologist at Jewish Hospital and Medical Center of Brooklyn and an assistant ophthalmologist at Mercy Hospital, Rockville Centre. Dr. Silverstein was a Diplomate of the American Board of Ophthalmology and a member of the American Academy of Ophthalmology and Otolaryngology, the Pan American Association of Ophthalmology, the Nassau County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Frederick J. Stone, M.D., of Buffalo, died on June 14 at the age of 73. Dr. Stone graduated in 1932 from the University of Buffalo School of Medicine. He was an emeritus physician in medicine at Millard Fillmore Hospital. Dr. Stone was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Chest Physicians, and a member of the American Geriatrics Society, the Buffalo Academy of Medicine, the New York State Society of Internal Medicine, the Erie County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Herbert F. Waldhorn, M.D., of Great Neck, died on June 16 at the age of 61. Dr. Waldhorn graduated in 1942 from New York University College of Medicine. He was a staff psychiatrist at Long Island Jewish-Hillside Medical Center. Dr. Waldhorn was a member of the American Psychoanalytic Association, the American Psychiatric Association, the Nassau County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Emery I. Wells, M.D., of Albuquerque, New Mexico, formerly of New York City, died on March 18 at the age of 76. Dr. Wells received his medical degree from the University of Vienna in 1932. He was a member of the American Psychiatric Association.

Howard Wesson, M.D., of The Bronx, died on March 6 at the age of 69. Dr. Wesson graduated in 1935 from New York University College of Medicine. He was a consulting surgeon at Jewish Memorial Hospital, an attending surgeon at The Bronx-Lebanon Hospital Center, and a consulting surgeon at Lincoln Hospital. Dr. Wesson was a Fellow of the American College of Surgeons and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Milton John Wilson, M.D., of Sarasota, Florida, formerly of New York City, died on February 15 at the age of 85. Dr. Wilson graduated in 1918 from New York Homeopathic Medical College and Flower Hospital. He was a Diplomate of the American Board of Orthopedic Surgery, a Fellow of the American College of Surgeons, a Fellow of the International College of Surgeons, and a member of the American Academy of Orthopaedic Surgeons, the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Auxiliary to MSSNY

45th Annual Convention
Grand Hyatt New York,
New York City

Sunday, October 11 through
Tuesday, October 13, 1981

Mrs. Edgar Berry, President, Mrs. Joseph Prezio, President-Elect, The Officers, Mrs. Clifford Spingarn, Convention Chairman, Mrs. Arthur Lautkin and Mrs. Alexander Kelen, Convention Co-Chairmen and Mrs. Joseph Izzo, Convention Upstate Coordinator, extend to all members and physicians' spouses an invitation to register and attend all the general sessions and social functions at the 45th Annual Convention.

Sunday, October 11, 1981

10:00 A.M.	Board of Directors Meeting
1:00 P.M.–4:00 P.M.	Registration and Information, *Ballroom D Foyer*
7:00 P.M.	Reception and Dinner Dance honoring Dr. Ralph M. Schwartz, President, Medical Society of the State of New York

Monday, October 12, 1981

8:00 A.M.–4:00 P.M.	Registration and Information, *Ballroom D Foyer*
8:00 A.M.–8:30 A.M.	Coffee, *Ballroom D*
8:30 A.M.–12:30 P.M.	House of Delegates Opening Session, *Ballroom D* 1. Greetings 2. Keynote Speaker 3. Report of 1980–81 Nominating Committee 4. Nominations—1981–82 Nominating Committee 5. Nominations—Delegates to the 1982 AMAA Convention 6. Report of the President 7. Memorial Service 8. Report of Bylaws & Revisions Committee
1:30 P.M.–4:30 P.M.	House of Delegates Reconvenes, *Ballroom D* County Reports Voting for Nominating Committee and Delegates to National Convention, Chicago, June 13–16, 1982.

Tuesday, October 13, 1981

8:00 A.M.–11:30 A.M.	Registration and Information, *Ballroom D Foyer*
8:00 A.M.–8:30 A.M.	Coffee, *Ballroom D*
8:30 A.M.–Noon	House of Delegates Reconvenes, *Ballroom D* State Officers' Reports State Committee Transition Reports Report of Election and Tellers Committee Acknowledgments Presentation of Awards Convention Credentials Report Installation of 1981–82 Officers Presentation of Past President's Pin Presentation of President's Pin and Gavel Inaugural Address—Mrs. Joseph Prezio Forecast Adjournment
12:30 P.M.	Reception in honor of Past State Presidents, Regency Room, Mezzanine Level
1:30 P.M.	Annual Luncheon, honoring Mrs. Edgar P. Berry, AMSSNY President GUEST SPEAKERS: Jim Jensen, Newscaster for CBS Kay Gardella, TV critic, New York Daily News
5:00 P.M.–7:00 P.M.	Cocktail Reception, hosted by Dr. and Mrs. Edgar P. Berry, Presidential Suite
7:30 P.M.	Theatre Party Benefit—AMA-ERF fund "Woman of the Year" Reservations: Mrs. Charles Huntington 950 Forest Avenue Rye, NY 10580 (914) 967-2363

Wednesday, October 14, 1981

9:00 A.M.	Post-Convention Board of Directors Meeting

Auxiliary Officers

Mrs. Edgar P. Berry, *President*, New York County
Mrs. Joseph Prezio, *President-Elect*, Erie County
Mrs. Kenneth Spitzer, *First Vice-President*, Onondaga County
Mrs. Martin Rabin, *Second Vice-President*, Suffolk County
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Convention Committee

Mrs. Clifford Spingarn, *Chairman*, New York County
Mrs. Arthur Lautkin, *Co-Chairman*, New York County
Mrs. Alexander Kelen, *Co-Chairman*, New York County
Mrs. Joseph Izzo, *Upstate Coordinator*, Monroe County

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and personal professional qualifications in a variety of educational settings. After passing a written examination, FMGs "should undergo an evaluation in prepared test centers in which qualified observers can evaluate their clinical skills and assess their personal professional qualifications," the AAMC said.

U.S. FMGs are asked only six percent of the questions about subjects in the basic sciences that domestic graduates are asked, the report said. Furthermore, the Americans who have graduated from medical schools abroad are certified if they pass an exam prepared by the ECFMG (Educational Commission for Foreign Medical Graduates) that has 62 percent fewer test items and 88 percent fewer questions in basic sciences than the test administered to alien graduates in the test known as the VQE (Visa Qualifying Exam).

"It is difficult to understand why U.S. citizens should be accorded ECFMG certification on the basis of such a lesser evaluation, particularly in light of the specific negative comments of the GAO (General Accounting Office) report relating to several of the schools to which most U.S. citizens have access," said the report.

"It is even more difficult to understand why the ECFMG persists in certifying U.S. citizens on the basis of passing a 360-item examination when one compares it to the examination that over 75 percent of the graduates from our domestic schools have passed at the time they enter graduate medical education," the AAMC said, noting that the domestic test is composed of 1,840 questions.

Measures currently employed to determine the adequacy of the medical education of the more than 10,000 Americans studying medicine abroad "do not approach equivalency," the report said. "Thus, those who enroll in the foreign-charted schools to which most U.S. citizens have access may return and eventually practice medicine deficient in both knowledge and professional skills."

The AAMC said proprietary medical schools attracting U.S. citizens abroad "now threaten to compromise" the achievements of medical education in this country. These foreign schools "press both public and private policymakers to provide special opportunities and privileges to their enrollees."

* * *

A panel established by two congressmen to review the federal government's new drug approval has completed its first organizational meeting.

After a six-month investigation, the commission will make recommendations on how the FDA can speed the approval of new drugs without compromising public safety and on how it can guarantee quick and cost-effective removal from the market of drugs which cause adverse effects.

Representative James H. Scheurer (D., N.Y.) and Albert Gore (D., Tn.) whose House Science and Technology subcommittees are investigating the drug approval process, assembled the 25-member panel

Scheuer blamed "regulatory overkill" at the FDA for the 7 to 10 year delay between the discovery of new pharmaceuticals and their approval for use in the United States.

F. Gilbert McMahon, M.D., clinical professor of medicine and adjunct professor of pharmacology at Tulane Medical School, New Orleans, is panel chairman. Other representatives are from academia, industry, government, and the public sector.

* * *

Women who are pregnant or considering pregnancy should not drink alcohol and should watch for foods and drugs containing alcohol, a Surgeon General's advisory says.

"Sizeable and significant increases in spontaneous abortions have been observed at reported alcohol consumption levels of as low as one ounce of absolute alcohol twice a week," the advisory warned. (Two standard shots of hard liquor contain an ounce of pure alcohol).

The report also noted that women who drink an average of an ounce of absolute alcohol a day while pregnant risk bearing children who are significantly underweight.

Edward N. Brandt, M.D., Assistant Secretary for Health and acting Surgeon General, urged physicians, in an individual mailing, to pass the warning on to their patients.

The advisory also warned that:

> —A woman who drinks enough to be diagnosed as an alcoholic risks bearing a child with FAS (fetal alcohol syndrome), a collection of birth defects associated with mental retardation, central nervous system disorders, growth deficiencies, and a cluster of facial abnormalities and other malformations.
>
> —A woman who drinks heavily, even if she does not bear a child with FAS, risks bearing a child with one of the individual defects included in the syndrome.
>
> —Heavy alcohol consumption is known to decrease mother's milk, and alcohol is transmitted to nursing infants through breast milk.

The advisory said the effects of alcohol consumption on pregnancy appear to be independent of variables such as maternal nutrition and smoking habits.

The letter to physicians urged them to ask their patients who are pregnant or considering pregnancy about alcohol consumption and include the information in their medical records.

Feelings vs.

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to *de*crease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

The FACT is they are right.

For a brief summary of product information on Valium (diazepam/Roche) Ⓒ, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® ⓘⓥ
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis stiff-man syndrome, convulsive disorders (not for sole therapy)
The effectiveness of Valium (diazepam Roche) in long-term use that is, more than 4 months, has not been assessed by systematic clinical studies The physician should periodically reassess the usefulness of the drug for the individual patient
Contraindicated: Known hypersensitivity to the drug Children under 6 months of age Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy
Warnings: Not of value in psychotic patients Caution against hazardous occupations requiring complete mental alertness When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures Advise against simultaneous ingestion of alcohol and other CNS depressants Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses Infrequently milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months After extended therapy, gradually taper dosage Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence

> ***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies Observe usual precautions in impaired renal or hepatic function Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation
The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration The clinical significance of this is unclear
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea fatigue, depression, dysarthria, jaundice skin rash, ataxia, constipation headache incontinence, changes in salivation slurred speech tremor vertigo, urinary retention, blurred vision Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug Isolated reports of neutropenia jaundice, periodic blood counts and liver function tests advisable during long-term therapy
Dosage: Individualize for maximum beneficial effect *Adults* Anxiety disorders symptoms of anxiety 2 to 10 mg b i d to q i d alcoholism, 10 mg t i d or q i d in first 24 hours then 5 mg t i d or q i d as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t i d or q i d adjunctively in convulsive disorders 2 to 10 mg b i d to q i d *Geriatric or debilitated patients* 2 to 2½ mg 1 or 2 times daily initially increasing as needed and tolerated (See Precautions) *Children* 1 to 2½ mg t i d or q i d initially increasing as needed and tolerated (not for use under 6 months)
Supplied: Valium® (diazepam/Roche) Tablets 2 mg 5 mg and 10 mg— bottles of 100 and 500, Tel E-Dose® packages of 100 available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10 Prescription Paks of 50 available in trays of 10

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Medical Meetings

Memorial lecture

Howard Spiro, M.D., professor of medicine and chief of gastroenterology, Yale Medical School, will be the guest speaker at the Arleen Goldwitz Allen Memorial Lecture on Thursday, September 17 at 11:30 a.m.

The lecture on "Inflammatory Bowel Disease—1981" will be held at Lecture Hall I, Basic Sciences Building, Downstate Medical Center, 450 Clarkson Avenue, Brooklyn, New York 11203.

National educational forum

The American Academy of Family Physicians will stage a national educational forum in family medicine September 21 to 24 at the Las Vegas Convention Center

Current concerns in adolescent medicine

The fourth annual course on current concerns in adolescent medicine on "The Abused Adolescent and the Adolescent with Abdominal Pain" will be presented September 24 and 25.

This program is sponsored by the Department of Pediatrics, Long Island Jewish-Hillside Medical Center, The Postgraduate Institute for Medical and Dental Education, New Hyde Park, New York, and the Health Sciences Center, State University of New York Stony Brook.

The course will be held at the Loew's Warwick Hotel, 65 West 54th Street at the Avenue of the Americas, New York City. Registration is limited.

For further information please contact: Ann J. Boehme, Continuing Education Coordinator, Long Island Jewish-Hillside Medical Center, New Hyde Park; telephone (212) 470-2114.

All day conference

"Working Women—Designs for Workplace Health" will be presented by The Women's Occupational Health Resource Center of Columbia University on Thursday, September 24, at the District 1199 Cultural Center, 310 West 43rd Street, New York, New York 10036.

For additional information contact: Charlotte Punski, Conference Coordinator, Women's Occupational Health Resource Center, 60 Haven Avenue, Room B-1, New York, New York 10032; telephone (212) 694-3464.

Renal Aspects of Rheumatologic Disease

The Department of Medicine, Queens Hospital Center Affiliation of Long Island Jewish-Hillside Medical Center and The Health Sciences Center, State University of New York at Stony Brook, will present "Renal Aspects of Rheumatologic Disease" on Friday, September 25, at the

Material for inclusion in the medical meetings section must be received eight weeks prior to publication date.

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nationwide communications between physicians, patients, and third parties.

With the publication of the fourth edition of CPT-4, the AMA established a mechanism whereby additions and/or changes in CPT can be communicated to the users in an efficient and timely manner. The publication of this sixth update demonstrates that a viable mechanism indeed exists for receiving, evaluating, and including recommendations for change to this nationwide medical terminology system.

The CPT-4 text and future CPT updates will be available through the Order Department, American Medical Association, P.O. Box 821, Monroe, WI 53566. Single copies of CPT-4 (OP-041) are $19.95 each plus $2.00 for postage and handling (fourth class book rate); or $3.00 for delivery via UPS. Single copies of the seventh update (OP-097) will be $5.00.

(Updates first through sixth will be provided free of charge). Orders should be prepaid; allow three to four weeks for delivery (five to eight working days for UPS service).

Availability of training opportunity in the field of maternal and child health

The Graduate School of Public Health, San Diego State University, San Diego, California, is now accepting applications from obstetricians and pediatricians interested in a career in the field of Maternal and Child Health. Applications are being accepted for August *1982*. The training program is of nine months duration. Considerable effort is made by the faculty to assist each student in career planning.

Inquiries should be addressed to: Helen M. Wallace, M.D., Professor and Head, Division of Maternal and Child Health, Graduate School of Public Health, San Diego State University, San Diego, CA 92182.

AMA handbook by Book of the Month Club

The American Medical Association's *Handbook of First Aid and Emergency Care*, published last fall as the first volume in the AMA's Consumer Book Program, will be offered by the Quality Paperback Book Club, a division of Book of the Month Club.

Random House, publisher of the handbook, has announced plans for a third printing, which will bring the total number of copies in circulation to 80,000.

"We are very pleased with the sales performance of this book to date," said C. A. Wimpfheimer, vice president and managing editor at Random House.

"In addition to solid retail sales, several major corporations have been bulk purchasers of this book for distribution to their employees."

Three more books in the AMA series will be published in February. Questions about bulk purchases of the *Handbook* can be addressed to: Random House, Inc., Department FT 4-6, 201 East 50th Street, New York, NY 10022.

Here and there

Appointed: John Baum, M.D., director, Arthritis and Clinical Immunology Unit, University of Rochester School of Medicine and Dentistry, Rochester, has been appointed to the Advisory Panel on Analgesics, Sedatives, and Anti-inflammatory Agents of the United States Pharmacopeial Convention . . . Abraham Schlossman, M.D., of New York City, has been appointed to the Board of Directors of the American Academy of Ophthalmology . . . Roy T. Steigbigel, M.D., associate professor of medicine, the University of Rochester School of Medicine and Dentistry, has been appointed to the panel of the United States Pharmacopeial Convention Inc., on Infectious Disease Therapy.

Elected: Elected to Fellowship in the American College of Radiology from the New York area are: Robert H. Sagerman, M.D., Fayetteville, Frank M. Dain, M.D., New York City, and Herman W. Lubetsky, M.D., Pomona.

Fewer patients available for kidney transplants

Despite advances in the medical management of kidney transplants, fewer patients now on dialysis can look forward to receiving a donor kidney.

The reason is that an increasing number of prospective kidney recipients have become sensitized to the foreign proteins that are likely to be encountered in a donor kidney, according to a group of investigators headed by Jhoong S. Cheigh, M.D., of the New York Hospital-Cornell University Medical College writing in the Journal of the American Medical Association (July 10).

The proportion of sensitized patients in their study group grew from 32 percent in 1973 to 92 percent in 1977 before leveling off. Other researchers report a similar incidence of sensitized patients, the authors write.

The result is a major problem in clinical transplantation in which a growing number of dialysis patients are virtually untransplantable.

Two factors may be responsible for the increase in patients who are poor risks for transplants because of their immunologic characteristics. First, many patients may have been sensitized to foreign proteins during multiple blood transfusions received in the pretransplant period. Second, a number of the prospective recipients had already become sensitized from a prior rejected transplant.

The authors report that two investigational procedures, (1) autoimmunization and (2) radiation combined with bone marrow transfusion, hold promise for decreasing the risk of rejection of the kidney graft. In the meantime, they call for protecting kidney recipients from sensitization and for increasing the procurement of cadaver kidneys to improve the chances of matching already sensitized patients with immunologically compatible kidneys.

Books Reviewed

Casarett and Doull's Toxicology. The Basic Science of Poisons. Second edition. Edited by John Doull, M.D., Ph.D., Curtis D. Klassen, Ph.D., and Mary O. Amdur, Ph.D. New York, Macmillan Publishing Co., Inc., 1980. Illustrated, 778 pages. Cloth, $29.95.

The second edition is an expanded, updated version of the excellent text that first appeared in 1975. That edition was a highly successful effort to present in a unified manner the multidimensional aspects which comprise modern toxicology.

The past few years have seen the rapid growth and transformation of toxicology from a hitherto relatively esoteric specialty into a basic, multidisciplinary science which is generating increasing interest in both the public and private sectors.

While all areas of toxicology are so involved, the environmental and industrial branches have been witness to a particular surge of activity, as concern over the purity, quality, and safety of our total environment has now become a paramount issue. In response to the complexity of the fundamental problems, modern toxicology draws on the analytic, chemical, biochemical, pharmacologic, and other clinical sciences. The interactions among the major branches of toxicology are increasing, thereby eliminating many of the traditional intradisciplinary boundaries and making important a broad knowledge of the entire field. Concurrently, we see the impact of the growth of regulatory toxicology and the crucial role of toxicology itself in civil and criminal matters.

The practicing toxicologist must be able to present and defend in a court of law both fact and informed opinion in a comprehensible and objective manner. The need for basic texts which meet the complex, diversified academic, and educational requirements of training programs in toxicology is obviously great. Happily, the present work can be highly recommended in this regard, not only to students at all levels, but also to those already in the field seeking information on specialties other than their own, and to all others in the medical sciences to whom toxicology is of interest or of relevance.

The book is divided into five units: General Principles of Toxicology; Systemic Toxicology; Toxic Agents; Environmental Toxicology; Applications of Toxicology. The chapters within each unit are written by specialists, and although not intended to be state of the art reviews, do in general offer an excellent overview of the particular specialty. Each chapter is also very well referenced.

The first part of Unit I provides a review of such basic topics as toxicologic testing and evaluation, drug pharmacodynamics and pharmacokinetics, drug metabolism, and factors influencing toxicological interpretation. The last three chapters are excellent surveys of the principles and mechanisms involving chemical carcinogens, genetic toxicology, and teratogens. These topics are the basis of much of the current research and controversy in several areas of toxicology and pharmacology, and the material presented here should serve as a suitable introduction to the reading of the current literature. The chapter on genetic toxicology is new and reflects the growing awareness of the role of heredity in relation to the response to drugs and chemicals.

The toxic responses that develop in such specific systems of the body as the central nervous system, liver, kidney, respiratory system, eye, blood, and reproductive system are discussed in individual chapters in Unit II (Systemic Toxicology). Each chapter incorporates the basic physiological and pharmacological information necessary for an understanding of the mechanisms of the toxic actions. In general, the effects of specific types of drugs and chemicals are presented on the basis of which agents and metabolites produce a given toxicologically induced pathological disorder, or in relation to organ structure and function. The role of organic and inorganic pollutants is well covered, particularly in the chapter on respiratory toxicology. With regard to the discussion of carbon monoxide poisoning in the chapter on the blood, I would like to see included in future editions the recent work (see Leo Goldbaum—Is Carboxyhemoglobin Concentration the Indicator of Carbon Monoxide Toxicity?, in Legal Medicine Annual, 1976, p. 165) which provides very strong evidence for a mechanism involving the unbound, circulating carbon monoxide as being responsible for the poisoning of the cytochrome system. Overall, each chapter is an excellent source of essential information, not usually available in most textbooks, on the nature, type, and mechanism of drug and chemical induced toxicity in a given system.

Unit III (Toxic Agents) is a comprehensive survey of the respective toxicologies of such classes of compounds as pesticides; metals; solvents and vapors; radiation and radioactive materials; plastics; toxins of animal origin; and phytotoxicology (plant toxins). These chapters are most useful to anyone seeking familiarity with the basic aspects of these topics.

Unit IV (Environmental Toxicology) deals with food additives and contaminants, air pollutants, and water and soil pollutants. The chapter on air pollutants is a very good introduction to the subject and should be read in conjunction with the chapter on toxic responses of the respiratory system as there is much overlapping and mutually relevant material.

The final unit, Applications of Toxicology, deals with the forensic, clinical, and occupational toxicologies and concludes with two chapters entitled regulatory toxicology and toxicology and the law. The chapter on forensic toxicology contains a concise assessment of the basic objectives, material requirements, problems of interpretation, and future trends of this field, and in addition discusses the all-important relationship between the toxicologist and the legal system. The section on clinical toxicology provides an excellent survey of the symptoms and medical management of overdoses of a wide variety of therapeutic agents and chemicals. The discussion of occupational toxicology is a brief presentation of the basic problems of this area.

The final two chapters offer an introduction to the role of the drug and chemical regulatory statutes, occupational,

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health and safety codes, and so forth, with which most toxicologists should be more familiar.

While keeping in mind both the general design of the book and the editors concern for avoiding an excessively large text, this reviewer would nevertheless like to see the unit on Applications of Toxicology expanded. In particular, the chapters on forensic and occupational toxicology could be enlarged to provide more comprehensive discussion of some of the more relevant theoretical and practical problems.

In addition, the growing frequency of involvement of drugs, other than or in combination with alcohol and marijuana, in traffic accidents and fatalities warrants some discussion of this increasingly alarming problem. As methodology itself has become an important factor in the crucial areas of interpretation and reliability in toxicological testing, some discussion of the scope and limitations of the complex and sophisticated techniques and analytic instrumentation currently employed is relevant.

These points aside, Toxicology is an excellent, comprehensive, well-written text which provides essential information in all areas of this burgeoning field. It will no doubt find wide acceptance among students at both graduate and undergraduate levels, and it is highly recommended as a reference for all practitioners seeking basic up-to-date information in the specialty areas of toxicology. **Donald B. Hoffman, Ph.D.**

Operative Biliary Radiology. By George Berci, M.D., and J. Andrew Hamlin, M.D. Baltimore, Williams & Wilkins, 1981. Illustrated, 218 pages. Cloth, $37.50.

This book is somewhat misnamed. In addition to radiology of the biliary tree, it also includes valuable discussion on operative endoscopy and method of retrieving retained common bile duct stones. A chapter on manometry is included although this modality is gradually assuming less importance in biliary tract surgery, particularly as far as organic disease is concerned.

The facilities available at the authors' hospital for operating room cholangiography are obviously extensive and without doubt fluoroscopy is very important in evaluating the duct during surgery. Unfortunately, not all hospitals see fit to provide this equipment for use in routine biliary surgery.

The description and discussion of various modalities and findings on cholangiography is extensive and complete. Some will disagree with authors' choice of technique of cystic duct cholangiography, but these are personal preferences, that is, use of plastic rather than metallic cannulas for the cystic duct.

The organization in each hospital often does not allow the close cooperation between surgeon and radiologist in reading of cholangiograms as described here and most surgeons are well advised to develop this ability individually which is usually easy when routine cystic duct cholangiograms are done, as should be.

The combination of radiological, surgical, and endoscopic skills are well described in this book and only by the use of all three can there be a dent made in the incidence of retained stones. Appropriately the authors also deal well with the nonsurgical removal of retained stones.

This book can be recommended to all those interested in biliary tract surgery. **Bjorn Thorbjarnarson, M.D.**

Microcirculation. Volume 3. Edited by Gabor Kaley, Ph.D., and Burton M. Altura, Ph.D. Baltimore, Md., University Park Press, 1980. Illustrated, 531 pages. Hardcover, $64.50.

The editors are two well-known and respected investigators in the field of vascular smooth muscle physiology. For this third volume of a series, they have invited contributions from a diverse group of specialists on microcirculation. The volume carries forward the comprehensive survey of microcirculatory research into pathophysiology. Effects of radiation and temperature, low flow states, extravascular defense mechanisms, and changes in blood viscosity and vascular endothelium are discussed in relation to the important problems of circulatory shock and peripheral vascular diseases. The book culminates in a description and critique of methods and future trends in microcirculatory research. The newer techniques for analyzing cerebral microcirculation, hemodynamics, and fluid exchange in single capillaries, and electrophysiological properties of vascular smooth muscle are particularly important for studies in regulatory control of the microcirculation. This volume effectively rounds out the series of three planned as a treatise. It consolidates material that is new or scattered in other publications and presents it succinctly in a clinically relevant context. It should be a valuable reference work for clinicians. **Nancy M. Buckley, M.D.**

Essential Malariology. By Leonard Jan Bruce-Chwatt, CMG, OBE, MD, FRCP, MPH. New York, Springer Publishing Company, Inc. Illustrated, $34.50.

This book is both concise and comprehensive and clearly reflects the vast laboratory, clinical, epidemiological, and administrative experiences of an eminent malariologist. Professor Bruce-Chwatt worked in Africa for many years in a variety of capacities, coming to grips with the enormous problems posed by malaria. This has uniquely qualified him to produce what is not only an essential picture of malaria, but a balanced one as well. *Essential Malariology* is an authoritative book that has broad appeal and will serve both the generalist and specialist equally well.

It is divided into ten chapters: Historical Outline, The Malaria Parasites, Clinical Course of Malaria, Pathology and Immunology of Human Malaria, Diagnostic Methods in Malaria, The *Anopheles* Vector, Epidemiology of Malaria, Chemotherapy and Chemoprophylaxis, Rationale and Technique of Malaria Control, and Malaria Eradication. In addition, there are 29 pages with some 400 references, grouped under seven main rubrics, five extremely valuable annexes, an extensive index, 74 figures, and 24 tables. Each chapter is splendidly organized and full of up-to-date information and insightful discussions.

The first chapter contains an excellent presentation of the history of malaria, in tabular form, under three headings, The Human Malaria Parasites and Their Transmission, Treatment of Malaria and Epidemiology, and Control of Malaria. Professor Bruce-Chwatt's lucid discussion of the malaria parasites in the second chapter is richly supplemented by an excellent table and several figures. This is followed by a very good third chapter dealing with the clinical course of the disease and then a chapter on the pathology and immunology of malaria. In this chapter there is an excellent discussion of attempts to develop a malaria vaccine, including Trager's recent work. The chapter dealing with the diagnosis of malaria will be of enormous value to clinicians and laboratory personnel as

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"Fundamental Immunology"

OCTOBER 1
"Gastroesophageal Reflux in Infants & Children"

OCTOBER 8
"Hyperalimentation"

OCTOBER 15
"Renal Physiology for Surgeons"

OCTOBER 22
"Biliary Tract"

OCTOBER 29
"Management of Burns"

NOVEMBER 5
"Hepato Biliary Diseases of Infancy & Childhood"

NOVEMBER 12
To be Announced

NOVEMBER 19
"Surgical Emergencies of the Newborn"

DECEMBER 3
"Predictive Parameters in Breast Cancer"

DECEMBER 10
"Trauma in Children"

DECEMBER 17
"Hemodynamics in Shock"

JANUARY 7
"Malignancies in Childhood"

JANUARY 14
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it contains much practical information on the preparation of blood films including several useful drawings and tables. There is also a fine discussion of serological tests and their limits. The sixth chapter, which deals with the *Anopheles* vectors, will be especially useful to those involved in malaria control work and to general readers as well because the material presented is so comprehensive and yet concise and easy to follow. The discussion is richly supplemented by several drawings, tables, maps, and figures. This chapter is followed by a very thorough one dealing with the epidemiology of malaria and then by one of the best up-to-date chapters I have read on chemotherapy and chemoprophylaxis. Chapter 9 deals with malaria control and chapter 10 with malaria eradication.

A word must be said about some of the annexes because they are excellent. Annex I is a detailed listing of antimalarial drugs by both proprietary and nonproprietary names. Annex II lists the common insecticides used in control work by their generic and other names. Annex III, is a listing of countries and the malaria risk in them and will be of great value to clinicians who must advise travelers.

Not only is the book extremely well organized, but Professor Bruce-Chwatt also writes in a very lucid and pleasing style. The book is nicely produced on good paper, has a fine binding and an attractive dust jacket, and high quality photo-illustrations. In sum, *Essential Malariology* is highly recommended to everyone with an interest in malaria. **Pascal James Imperato, M.D.**

Rehabilitation Management of Rheumatic Conditions. Edited by George E. Ehrlich, M.D. Baltimore, Williams & Wilkins, 1980. Illustrated, 322 pages. Hardcover, $34.95.

Rehabilitation Management of Rheumatic Conditions is a new addition to the Rehabilitation Medicine Library series (Dr. John V. Basmajian, editor); the volume under review is edited by George E. Ehrlich, M.D., a specialist in rheumatology and rehabilitation medicine, aided by 17 physician and nonphysician contributors well-versed in the care of the arthritis patient.

The book is neither a comprehensive review nor a basic introduction, but rather a collection of thoughtful and often provocative essays covering selected areas. Particularly valuable are the discussions on drug therapy, inpatient nursing care, and community resources. The first chapter, by Dr. Robert Swezey, ought to be required reading for any health professional who has been a member of a "rehab" team. A few chapters, notably those dealing with the nurse practitioner and podiatrist, are somewhat controversial in their descriptions of these professionals' clinical roles. The chapter on physical therapy is far too short and general for such an important area.

This is a compact (300 pages) and well-written book. It supplements, but does not replace, the 1969 *Arthritis and Physical Medicine* (part of the late Sidney Licht's classic Physical Medicine Library), a longer (500 pages) and more all-encompassing traversal of the subject. Nevertheless, Dr. Ehrlich is to be commended for a stimulating and refreshing contemporary view of a complex field. **Stanley F. Wainapel, M.D.**

The All-RN Nursing Staff. Edited by Genrose J. Alfano, R.N. Wakefield, Mass., Nursing Resources, 1980. Paperback, 133 pages.

The book is a report of a seminar moderated by Genrose Alfano. Ms. Alfano, aside from her excellent educational background, is obviously aware of the pitfalls and needs of the profession and its future direction.

She has divested herself of the old rationalizations, long used by the inept, such as the "sexist" views, the cry for "unqualified AUTONOMY," the bleat that "doctors want handmaidens," and other malaprops that have hindered the potentially more far-sighted members of the profession for so long.

The panelists of the meeting were well informed, spoke articulately, and seemed to appreciate fully the drawbacks of the current "team nursing" approach, as compared with the much superior "primary care nursing" technique which, ironically, was the status quo years before the fallacious team nursing concept of task orientation disrupted the profession. They demolished as well the fear that an "all-nursing" staff is too costly.

The most apparent facet of the problem for the return to primary nursing is the need for UNIVERSALLY ACCEPTED definitions of: Nursing, Primary Nursing as a distinction between "Nursing Care" and "Medical Care," Registered Nurse, Professional Nurse, Leader, and various supervisory titles, among others.

There are other minor questions to be resolved that stimulated controversy enough to suggest further discussion and resolution.

Generally, the book is a good beginning of a worthy endeavor by an eminently well qualified nurse moderator, Ms. Alfano, and a solid, pragmatic panel of well-placed and dedicated professional nurse leaders. It is a valuable and necessary step forward which physicians and nurses should welcome to facilitate superior patient care. **Lester J. Candela, M.D.**

Humanizing Nursing Education: A Confluent Approach Through Group Process. By Virginia G. King, R.N., and Norma A. Gerwig, R.N. Wakefield, Mass., Nursing Resources, 1981. Hardcover, 206 pages.

King and Gerwig's book *Humanizing Nursing Education* should be read by every nurse educator. One could presume that a helping profession such as nursing would automatically be humanitarian, but it would appear that even this needs to be taught. To discuss a philosophy of education as a humanistic approach has tremendous implications not only for nurse educators and for their students but for graduate nurses who are responsible for teaching their patients.

The authors state "The aim of this branch of humanistic psychology is to promote the full development of human potential because it is person-centered. It places the utmost value on the dignity of the human being."

The application of the humanistic philosophy of education is discussed in relationship to the definition of nursing and the authors state that it will produce *The Humanistic Nurse.*

Chapters III and IV review the "How Tos" of this approach and chapter V, "The Role of the Teacher," is explanatory of how to use this teaching approach.

After reading the book, I doubt that few teachers would not seriously consider how they could change their present approach and try to incorporate the principles outlined in *Humanizing Nursing Education* in their everyday teaching.

The text is easy to read and the style is excellent in its

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This continuing medical education offering meets the criteria for 6½ credit hours from the (ACCME) (Accreditation Council for Continuing Medical Education) (the successor organization to both the LCCME (Liaison Committee on Continuing Medical Education) and the Physician's Recognition Award of the American Medical Association.

For further information, contact: Ann J. Boehme, Continuing Education Coordinator, Long Island Jewish-Hillside Medical Center, New Hyde Park, New York 11042, telephone (212) 470-2114.

Symposium

A symposium on "Health and Obesity" will be held October 9 in the auditorium of the College of Medicine and Dentistry of New Jersey Rutgers Medical School.

Additional information may be obtained from: Pat Reid, CMDNJ-Office of Continuing Education, Box 101, University Heights, Piscataway, New Jersey 08854; telephone (201) 463-4707.

First annual review course

"First Annual Review Course for Certification in Internal Medicine" will be held at Nassau Hospital, Mineola, New York 11501, Wednesday evenings—7:00 p.m.–10:00 p.m., October 14, 1981–May 26, 1982.

This is presented by Department of Medicine, Nassau Hospital.

For further information call: Department of Medical Education, Nassau Hospital, 516-663-2528.

Working group

The WHO (World Health Organization), in cooperation with the IPH Foundation is organizing the Working Group "On Occupational Hazards in Hospitals" during the First International Congress for Safety, Health, and Well-Being at Hospitals, October 19, 20, and 21, 1981, in The Hague, The Netherlands.

The congress will host a number of coordinated activities; the goal of these, symposia and workshops on one hand, the WHO Working Group on the other hand, will be to obtain relevant and practical information from today's hospital employees.

The unprecedented means of communication is a challenge, because it allows the hospital workers, for the first time, to have an indirect input to the WHO advisers, resulting in recommendations to the governments.

The aim of the WHO Working Group is to specify the occupational hazards of various categories of professional and other personnel employed in hospitals, and to consider measures to be undertaken to prevent adverse health effects from occupational hazards in hospitals.

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The Medical Society Of The State Of New York

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CARDIOVASCULAR DISEASE

8 Is The Decline In Cardiovascular Mortality Real?
Reduction In Cardiovascular Mortality By Modification Of Primary Risk Factors
9 The Effects Of Long Term Exercise Training On PatientOutcome
10 Impact Of Improved Medical Management On
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Panel Discussion & Questions

GASTROENTEROLOGY, & COLON, & RECTAL SURGERY RADIOLOGY

11 Intestinal Veneral Disease In 1980's
Colorectal View Of Venereal Disease
Panel Discussion
12 A.F.R. Andresen Honorary Memorial Lectureship Of The Medical Society Of The State Of New York
"Crohn's Disease Of The Duodenum"

14 Guidelines For The Use Of Flexible Colonscope
Mutual Aids: Radiologist & Endoscopist
15 Surgical Indications For Colonscopy - Do's And Don'ts
Panel Discussion

PREVENTIVE MEDICINE & PUBLIC HEALTH

16 Exercise: Change Of Lifestyle & Heart Disease
The Effectiveness Of Patient Education In Influencing Outcomes In Diabetes Mellitus
17 Lifestyle Management Strategies At New York Telephone Company
Government Strategies For Promoting Health Education & Illness Prevention
18 Reduction Of Heart Disease Risk Behaviors In Children: The Know Your Body Project
Panel Discussion

CANCER UPDATE 1981

19 Prostatic Carcinoma: Current Approach To Therapy
Ectopic Hormone Syndromes
Discussion
20 C.T. Scanning & Sonography In Tumor Diagnosis
Tumors Of The Gastrointestinal Tract
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21 Hospice: Maintaining The Dignity Of Life
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Discussion

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OTOLARYNGOLOGY & MAXILLOFACIAL SURGERY

22 Role Of Nutrition In The Patient With Head And Neck Cancer
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23 Thyroid Update
24 Management Of The Patient With Acoustic Neuroma
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MEDICAL-LEGAL & WORKERS COMPENSATION MATTERS OCCUPATIONAL MEDICINE

25 The Private Practice Of Occupational Medicine Viewpoint
26 The Rehabilitation Viewpoint
27 The Social Security Viewpoint
The Orthopedic Viewpoint
Panel Discussion

CHEST DISEASES

28 Computerized Axial Tomography (C.A.T.) Scan vs. Biopsies
Invasive Procedures: Bronchoscopy, Pleural & Pulmonary Biopsy
29 Useful Blood Tests In Diagnosis & Treatment
30 The 31st Annual Howard C. Lilienthal Memorial Lecture

DERMOTOLOGY & SYPHILOLOGY

32 Sexually Transmitted Diseases In The 1980's: An Overview
Syphilis & Other Sexually Transmitted Diseases In The Gay Scene
Discussion
33 Other Sexually Transmitted Diseases: Genital Herpes, Warts, Molluscum, Scabi
Pediculosis
Current Therapies For Sexually Transmitted Diseases
Discussion

ALCOHOL AND THE UNBORN

34 Fetal Alcohol Syndrome & Alcohol Related Birth Defects -Harold Nitowski, M.I
Drinking & Pregnancy - Review Of Current Research
35. Women & Alcohol
Fetal Alcohol Syndrome - Amol Lele, M.D.
Panel Discussion

UPDATE YOUR CARDIAC TESTING

36 The Evolution Of Stress Testing
Office Use Of Exercise Testing & Its Usefulness In Predicting Survival From Mi
dial Infarction
37 Radionuclide-Based Techniques In Evaluating Patients With Coroary Artery Di
38 Radionuclide-Based Techniques In Evaluating Patients With Valvular Disease &
diomyopathy
Including Thalium Perfusion
Panel Discussion
39 Echocardiography
Cardiac Catheterization
40 The Clinical Usefulness Of Holter Monitoring
Panel Discussion

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41 Vitrectomy In Ocular Trauma
Vitrectomy In Diabetes
42 Anterior Segment Vitrectomy With Special Reference To Intraocular Lenses
43 Vitrectomy As An Adjunct To Retinal Surgery
44 Oblique Muscle Surgery, Indications & Techniques
45 Surgical Treatment Of Eye Muscle Palsies
Treatment Of Double Hypertropia
46 Reoperations - Technical Problems At Surgery

NEUROSURGERY

48 Pertinent Microsurgical Anatomy
Posterior Fossa Aneuryms
Posterior Fossa Arteriovenous Malformation
49 Bypass Surgery In The Posterior Fossa

PATHOLOGY, ORTHOPEDIC SURGERY, RADIOLOGY

50 The Immunology Of Joint Diseases
Synovial Fluid-A Diagnostic Medium
Questions & Answers
51 Joint Diseases - Howard D. Dorfman MD. & Alex Norman, MD
Questions & Answers
52 An Overview Of Joint Replacement Therapy 1981
53 The Spine - An Ortgopedic & Radiologic Enigma
Questions & Answers

ANESTHESIOLOGY, SURGERY & UROLOGY

54 Raphael W. Robertazzi Memorial Lecture
Mgmt. & Prevention Of Organ Damage In Traumatized Patient Techniques In The Evaluation Of Abdominal Trauma
55 Treatment Of Complex Abdominal Injuries
The Etiology, Diagnosis, And Treatment Of Bladder Trauma
56 Current Mgmt. Of Traumatic Chest Injuries
Current Evaluation & Treatment Of Genitourinary Trauma
57 Monitoring Of Seriously Ill Trauma Patients
Questions & Answers

COMPUTER ASSISTED OFFICE PRACTICE: RECENT PROGRESS

58 Importance Of Accurate Coding Of Medical Terms
Computer-Based Automated Encoding Of Medical Terms
Demonstration Of Automated Encoding Of Medical Terms
59 Computerization Of The Office Records In The Cardiologists Practice
60 Clinical Aspects Of A Computer-Based Medical Knowledge Bank
Demonstration Of Computer-Supported Office Practicce & General Discussion

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THE ALBION O. BERNSTEIN, M.D. AWARD LECTURE

61 Producing Monoclonal Homogeneous Antibodies By Hybridoma Technique

PEDIATRICS - SCHOOL HEALTH

62 An Overview Of The Function Of The Committee On The Handicapped
The Role Of The Physician On The Committee On The Handicapped
63 Related Services, Physical and/or Occupational Therapy
64 New York State Mandates And P.L.94-142
65 Panel Discussion

ALLERGY & IMMUNOLOGY

66 Urticaria. A New Look
Food Allergy & Additives
67 Insect Allergy - A Model For Immunotherapy
68 Asthma Update - BD's
Patients As Consumers - Problems For Physicians In The BD's
Panel Discussion

NEUROLOGY

69 Life-Styles & Their Interaction With Multiple Sclerosis
Life-Styles & Their Interactions With Victims Of Head Trauma
70 Life-Styles & Their Interaction With The Epileptic
Life-Styles & Their Interaction With The Alcoholic
Questions & Answers

PLASTIC, RECONSTRUCTIVE, AND MAXILLOFACIAL SURGERY, ORTHOPEDIC SURGERY, PHYSICAL MEDICINE

71 Current Concepts Of Bony Mgmt. & Fixation
Traditional Principles Of Soft Tissue Mgmt.
72 War-Time Experiences With Compound Injuries Of The Lower Limb
Newer Concepts Of soft Tissue Mgmt. & Bony Coverage
The Microsurgical Approach To Compound Injuries Of The Lower Limb
73 Replantation Surgery Of The Lower Limb
Nerve Injuries & Their Mgmt. In Injuries Of The Lower Limb
74 Rehabilitative Mgmt. Of Compound Injuries Of The Lower Limb
Electrodiagnostic Evaluation Of Peripheral Nerve Injuries Of The Lower Limb
Panel Discussion

FAMILY & GENERAL PRACTICE PSYCHIATRY

75 New Prospects For Mental Health In The Eighties
The Women Patient & Doctor Relationship
76 Brain Site Specificity Of The Psychotrophic Medications
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77 Pharmacotherapy Of Anxiety & Panic States
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presentation. I would recommend this book to nursing educators as well as to inservice educators. **Sylvia Carlson, R.N., M.S.**

Practical Points in Pediatrics. Third edition. By Raymond M. Russo, M.D., and Vymutt J. Gururaj, M.D., Garden City, N.Y. Medical Examination Publishing Co., Inc., 1981. Paperback, 438 pages. Price, $13.75.

The authors apparently tried to combine several existing handbooks into one. The result was a partial success. Among their compilations few new ideas were presented. Most of the few references listed were outdated, partly because of the delay in the double process of publishing books and of subsequently compiling this one from them.

Some of the regrettable omissions were: The 1976 NCHS Growth Charts, the 1977 NHLBI Standards for Blood Pressures in children, the 1969 bone maturation tables from the Fels Research Institute, and guidelines for sport participation and for the prevention of bacterial endocarditis and of rabies.

Junior readers may want to see additional remarks on the following topics: Drugs in breast milk, imperforate anus and hymen, bronchopulmonary dysplasia, the role of honey in infant botulism, retinoblastoma, Caffey's infantile cortical hyperostosis, vascular rings, tracheoesophageal fistulas, Reye's syndrome, chronic active hepatitis, Wilson's hepatolenticular degeneration, hydronephrosis, Meckel's diverticulum, malabsorption syndromes, chlamydial infections, pneumococcal vaccine, scabies and lice, venereal diseases, acne, diaper rash and other dermatoses, Osgood-Schlatter's disease, testicular torsion, new drugs for tinea and otitis media, management of foreign bodies, and the Heimlich maneuver.

This book may benefit those students who do not take pediatrics seriously but still want a passing mark. **Tak-Sek Chan, M.D.**

Serial Dissections of the Human Brain. By Carlton G. Smith, M.D., Ph.D. Baltimore, Md., Urban & Schwarzenberg, 1981. Illustrated, 93 pages. Hardcover, $14.50.

This short, well-illustrated thin volume is an excellent compilation of anatomical drawings and should be most helpful to all interested in the review and continued familiarity with neuroanatomy. It eliminates much of the detail and is an excellent selection of anatomical facts and data helpful to many in medicine. **A. A. A.**

Infertility: A Practical Guide for the Physician. Edited by Mary G. Hammond, M.D., and Luther M. Talbert, M.D. Chapel Hill, N.C., Health Sciences Consortium, Inc., 1981. Paperback, 134 pages.

This is a very practical and down to earth review of the practice of male and female infertility. The authors, because of their long association with the Department of Obstetrics and Gynecology at the University of North Carolina, Chapel Hill, North Carolina, are immensely qualified to write on these subjects. The subject title implies that this book is a practical guide for the physician. It presents expanded lecture notes to medical students and residents as well as updated protocol on the management of the various aspects of infertility. It is very modern, helpful, and succinct in offering options of therapy. The viewpoints are ones which are of value in the everyday problems which arise in the speciality. The authors did not present a comprehensive textbook. "This book is intended to be a practical guide for students, residents, and practicing physicians who care for infertility patients." They have succeeded admirably in their goal. **William A. Finn, M.D.**

Core Pathology: Fundamental Concepts and Principles. By Chandler Smith, M.D. Oradell, N.J., Medical Economics Company, Book Division, 1981. Illustrated, 443 pages. Hardcover, $39.50.

This new textbook was written to serve medical students as a basic introduction to pathology. Designed around the course taught by its author at the University of Missouri, Kansas City School of Medicine, it strives to contain "exactly what a medical student must know about pathology." In my opinion, the book falls short of its mark because of self-imposed, laudable restraint in size and cost that has compromised the book's content. The inclusion of 12 pages of excellent color gross photographs fails to offset poor black and white photographs throughout the text.

This text may prove to find its place in paramedical and related health care professional's education where its easily read text would be a decided asset. **Jerome Nosanchuk, M.D.**

The Pharmacological Basis of Therapeutics. Sixth edition. Edited by Alfred Goodman Gilman, M.D., Ph.D., Louis S. Goodman, M.D., and Alfred Gilman, Ph.D. New York, Macmillan Publishing Co., Inc., 1980. 1,843 pages. Cloth, $45.

This sixth edition of Goodman and Gilman continues the tradition of the previous editions and remains the standard encyclopedia about drugs. The contributors are all authorities on the subject of their chapters. While multiauthored, this book has consistency from chapter to chapter that must represent extensive work by the editors.

Detailed and extensive information about drugs arranged in chapters organized by a pharmacologic or therapeutic classification comprises the largest portion of this book. A brief consideration of some general principles precedes this and a section on toxicology follows it. Several new appendices, one presenting pharmacokinetic data of many drugs in tabular form and another being an index to the text pages describing various drug-drug interactions concludes the book which is well-indexed.

This sixth edition of "G and G" is an exceptionally useful reference book in which a physician can look up nearly anything he might want to know about a drug. **Marcus M. Reidenberg, M.D.**

Learning Electrocardiography: A Complete Course. Second edition. By Jules Constant, M.D. Boston, Mass., Little, Brown and Company, 1981. Illustrated, 599 pages. Cloth, $29.50.

Medicine is in a special era; the engineers have taken over. The electronics manufacturers with their score of machines convince us that in any problem of diagnosis or treatment, all you have to do is press the right button.

In this atmosphere it is a pleasure and deep satisfaction to pick up a book that seems to go back to the idea that the

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Fifth national conference

The American Medical Association, in cooperation with the American Correctional Health Services Association, will sponsor its Fifth National Conference on Medical Care and Health Services in Correctional Institutions at Chicago's Marriott Hotel, October 30–31, 1981.

Approximately 500 people annually attend this conference. Nearly 40 workshops offering the greatest variety in history, will focus on every aspect of correctional institutions. A sampling follows:

- Risk management and law suits
- Improving staff morale and performance
- Epilepsy in prisons
- Health problems of incarcerated women
- Health care needs of juveniles
- Treating the drug offender
- Evaluating jail models

Gynecologic pathology

A course in continuing education on gynecologic pathology will be held November 2 to 5. Sponsored by the American Registry of Pathology and the Armed Forces Institute of Pathology, the course will be held in Hammond Hall in the Medical Museum of the Armed Forces Institute of Pathology, 14th Street at Alaska Avenue, N.W., Washington, D.C. 20306.

As an organization accredited for continuing medical education, the Armed Forces Institute of Pathology certifies that this continuing medical education activity meets the criteria for 25 credit hours in Category I of the Physician's Recognition Award of the American Medical Association and has been approved for 25 cognates, formal learning, by the American College of Obstetricians and Gynecologists. The continuing medical education activities of the Armed Forces Institute of Pathology are acceptable for credit in category 2D by the American Medical Osteopathic Association.

Diabetes Mellitus Treatment update

The Departments of Medicine, Long Island Jewish-Hillside Medical Center and The Health Sciences Center, State University of New York at Stony Brook, will present a course on "Diabetes Mellitus Treatment Update" on November 8 in the Nurses' Auditorium, Queens Hospital Center, 82-68 164th Street, Jamaica, New York.

This Continuing Medical Education offering meets the criteria for 4 credit hours from the ACCME (Accreditation Council for Continuing Medical Education) (the successor organization to both the LCCME (Liaison Committee on Continuing Medical Education), and the Physician's Recognition Award of the American Medical Association).

For further information, contact: Ann J. Boehme, Continuing Education Coordinator, Long Island Jewish-Hillside Medical Center, New Hyde Park, New York 11042,

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physician's clinical senses are a basic part of the picture. Jules Constant, assisted by an impressive list of highly qualified physicians on the faculties of prestigious universities starts to teach electrocardiography by outlining the basic anatomy and physiology of the heart and the electrical stimulation in the cardiac muscle. He is a teacher who knows how to make complex things understandable. It is easy to see why this is now the second edition of the manual.

The book is filled with diagrams and drawings which depict samples of EKGs that are dissected for clear diagnosis. It is a teaching manual as well as a reference volume, brimming with references both to support statements and to allow further reading of any particular aspect. By the time Constant gets into the details of irregularities, Einthoven would have been delighted at the expanse of what in his wildest dreams he could never have foreseen. **Philip Reichert, M.D.**

Enzyme Inhibitors. Edited by Urs Brodbeck. Florida, Deerfield Beach, Verlag Chemie, 1980. Illustrated, 282 pages. Paperback, $42.50.

This volume is derived from a symposium held in 1980 by the Swiss and German Chemical Societies. It is a diverse collection of articles on enzyme inhibitor research, encompassing the application of theoretical approaches, (notably the mechanism-based transition state analog and suicide substrate strategy), pharmacologic and chemotherapeutic studies and structure-activity relations. It would not be expected that such an approach could give a comprehensive review of such a broad area. It might, however, have provided a potpourri of different ideas for researchers involved in related fields such as endogenous biologic enzyme inhibitors.

Although it has achieved partial success of this goal, it is hard to recommend this book, to a large extent because of its high cost. On the positive side it has a brief, fascinating account of the discovery of a carboxypeptidase A inhibitor (Rottenberg and Hofmann); an interesting and detailed account of the proof of structure and pharmacology of the glucosidase inhibitor, Acarbose (Junge, Böshagen, Stoltefuss, and Müller); and a summary of studies of inhibitors of GABA-amino transferases (Jung) to name three of the most successful articles. Other papers, although authoritative accounts, are of somewhat more restricted interest. These may be valuable to researchers in these specific areas, but more comprehensive reviews may be available.

Some of the enzymes of interest: C-3 convertase (Andreatta, et al.), adenosine deaminase (Seela, et al.), β-lactamase (Schindler and Huber, and Knowles), transmethylase (Robert-Gero, et al.). This book could not be considered a major reference. Its possible utility as a readable selection from this interesting area of research is further compromised by the omission (except for short abstract) of Walsh's paper on suicide substrates, and the fact that nearly one fifth of the book is devoted to several contributors from Bayer on the inhibitor Acabose.

It seems to me this kind of publishing practice does a great disservice to the contributors and the libraries that may feel the need to acquire it. One also can't help wondering how much of the profits go to the typists who struggle to produce perfect copy inside the blue lines. **Richard Feinman**

Immunodermatology. Edited by Bijan Safai, M.D., and Robert A. Good, Ph.D., M.D. (Volume 7 of the Comprehensive Immunology Series.) New York, Plenum Medical Book Company, 1981. Illustrated, 717 pages. Hardcover, $49.50.

The skin as a target organ for immunological responses has been well known since the discovery of passive cutaneous anaphylaxis and is demonstrated in every day practice by the use of skin tests to assess cell mediated immune responses to the tubercle bacillus or IgE responses to ragweed pollen. The role of immunologic reactions in the pathophysiology of a wide variety of diseases affecting the skin may not be so well appreciated. This book serves a useful purpose in gathering together the currently available knowledge that relates immunology to cutaneous disease. The opening sections of this volume describing the basic principles of immunology repeat material available in a large variety of other sources and will likely be redundant to many readers.

The sections dealing with specific diseases, however, are uniformly excellent. The sections are written by experts, tend to be clear and concise, and the histologic figures, even in black and white, serve to properly illustrate the text. The index is complete and easy to use. This is a valuable book.

The disease related chapters should prove to be a useful collection of data and references for the specialist in dermatology or allergy while the more general reader will be enlightened by the description of the relationship between immunology and skin disease. **Arthur I. Grayzel, M.D.**

Cardiology, 1981. Edited by William C. Roberts, M.D., Dean T. Mason, M.D., Mary Allen Engle, M.D., and Lawrence H. Cohn, M.D. New York, N.Y. Yorke Medical Books, 1981. Illustrated, 364 pages. Cloth, $39.50.

Research cardiologists have been joined by electronic engineers and nuclear scientists; they are world wide and their findings are showered in weekly doses in dozens of medical journals. For the practicing cardiologist the task of reading, sorting, digesting, filing, and using these results add up to an almost impossible task. And yet it is a task that cannot be ignored.

The Yorke Publishing Company has collected a group of competent and well trained cardiologists to assemble, arrange, edit, clarify, and, above all, make useful the research report of more than 400 papers. All this is carefully indexed and is a useful addition to any library.

It is more than merely a reference book, since it explains what to the average physician may be obscure. There is, indeed, a new language, coined by the new methods and this is carefully explained. There is even a list of common abbreviations.

Testing methods for coronary heart disease, myocardial disease, pediatric, congenital and vascular problems, and far too many topics to list are included. There are summaries of 452 articles, really a treasure house of 1980 publications. It is highly recommended. **Philip Reichert, M.D.**

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nutrition policy issues

Toward A National Nutrition Policy

Preface

The United States Department of Agriculture (USDA) and the Department of Health and Human Services (DHHS, previously known as the Department of Health, Education and Welfare) recently published *Nutrition and Your Health, Dietary Guidelines for Americans.*[1] Although these guidelines are generally consistent with recommendations from other scientific and government bodies, the media has drawn attention to the differences in interpretation. This has resulted in consumer confusion about the function of diet in health and raised Congressional concerns about the direction of a national nutrition policy.

This paper reviews and summarizes the nutritional positions of the National Research Council - National Academy of Sciences (NAS), the Surgeon General, USDA, the Food and Drug Administration (FDA), the Federal Trade Commission (FTC) and the Senate Select Committee on Nutrition and Human Needs.

Background

The United States has been moving toward a national nutrition policy since the 1940s when standards for the enrichment of grains and margarine were established and when the school lunch program began. Since then, many additional steps have been taken. In the 1960s, the first U.S. nutritional status study was conducted and the White House Conference on Food, Nutrition and Health was held. Additional government programs were begun in the 1970s, such as USDA's nutrition education and supplementary feeding program for Women, Infants and Children (WIC) and the congregate dining program for the elderly (TITLE VII), national labeling hearings were held by FDA, USDA and FTC;[2] the Senate Committee on Nutrition and Human Needs published *Dietary Goals for the United States*;[3] and the Surgeon General released his report entitled *Healthy People.*[4]

The 1980s already have yielded Dietary Guidelines which were developed by USDA and DHHS[1] as well as the report *Toward Healthful Diets* from NAS.[5] In response to these more recent publications, several national organizations have released statements dealing with the recommendations.

There is general agreement on most of the recommendations. However, the disagreement among the groups on the interpretation and application of some of the recommendations may cause a delay in the scientific and public policy decision-making process leading toward a national nutrition policy.

Comparison of Opinions

When the USDA-DHHS announced their guidelines in February 1980, Agriculture Secretary Bob Bergland said, "There are no absolutes in our guidelines. It is not a prescription. We are simply trying to advise people how to stay healthy through a proper diet, to dispel some of the misinformation, to give Americans the information they need to make informed decisions about the food they eat."[6] It has been stressed by all the officials involved in preparing the guidelines that these guidelines are a consensus among government scientists on the current state of nutritional knowledge.[6]

The most controversial response to the guidelines is the report *Toward Healthful Diets*, published by the Food and Nutrition Board of the National Research Council in June 1980. The attitude of the Board toward dietary recommendations is summarized as follows in the introduction of their report:

> "The Food and Nutrition Board is concerned about the flood of dietary recommendations currently being made to the American public in the hope that a variety of chronic, degenerative diseases may be prevented in some persons.
>
> These recommendations, which have come from various agencies in government, voluntary health groups, consumer advocates and health food interests, often lack a sound, scientific foundation, and some are contradictory to one another.
>
> In an effort to reduce the confusion in the mind of the public that has resulted from these many conflicting recommendations, the Board has prepared [their report]."[5]

Specific Recommendations

The USDA-DHHS Dietary Guidelines are used throughout this paper as the basis for comparison. Comments on them from the various groups are summarized in the chart.

1. Eat a Variety of Foods.
   There is general agreement on this guideline from all major goverment and scientific groups.
2. Maintain Ideal Weight.
   Since obesity is linked to increased occurrence of hypertension, diabetes, coronary heart disease and gall bladder disease, this recommendation has received unanimous support.
3. Avoid Too Much Fat, Saturated Fat and Cholesterol.
   On this recommendation, there is much disagreement. While there is agreement that high blood levels of cholesterol and certain fats are related to heart disease, the difference arises on the use of dietary control as a treatment for this condition. Government scientists have taken a public health stance, believing an excess of these substance in the diet may be hazardous since heart disease is a major cause of death; thus they have recommended that all persons reduce their intakes. The Surgeon General, DHHS and USDA believe there is no harm in having the total population reduce its intake of cholesterol and saturated fat.

   The NAS has taken a clinical approach, recommending that people with major risk factors (such as diabetes, overweight, cigarette smoking, elevated blood pressure) should have their blood lipid levels determined and then follow the advice of their physicians. Both the NAS and the American Medical Association[7] state that the available evidence is not strong enough to recommend that all healthy adults reduce their intakes of cholesterol, total fat and saturated fat.
4. Eat Foods with Adequate Starch and Fiber.
   Although the recommendation to eat adequate starch and fiber was included in the USDA-DHHS *Dietary Guidelines*, no other group supported this recommendation directly. There seems to be some support, however, for the increased intake of complex carbohydrates. The NAS recommends an increase in complex carbohydrates and soluble plant fibers at the expense of simple sugars. In their tentative positions on food labeling announced in December 1979, following closely the USDA - DHHS Guidelines, the USDA-DHHS and FTC did not support fiber labeling since there is a lack of a definition of dietary fiber, methods of analysis and scientific documentation of the significance of fiber in the diet.[2]
5. Avoid Too Much Sugar.
   While the NAS does not believe sugar intake for most individuals needs to be reduced, again due to lack of scientific evidence of any harmful effect other than dental caries, most who commented support this recommendation. The recent Federation of American Societies for Experimental Biology (FASEB) review of sucrose essentially states that sugar is safe except for potential dental caries.[8] Dental experts generally believe that the

frequency of sugar intake is more important in preventing human tooth decay than the *amount* eaten.[9,10]

6 Avoid Too Much Sodium
Both the NAS and the Surgeon General state that there would be no harm in reducing sodium intake of all individuals and that a reduction may be especially helpful in the prevention of hypertension in susceptible individuals There is general agreement to a reduction, however, specific suggested levels of sodium intake are given by only two groups The NAS suggests intake should be limited to 3-8 g salt/day instead of the current intake of 10-12 g The Senate Select Committee recommends limiting intake to 8 g per day

7 If You Drink Alcohol, Do So in Moderation
Again, there is general agreement with this recommendation due to the link of alcohol to cirrhosis of the liver and certain cancers Also, alcohol is a source of excess calories and therefore a decrease in consumption supports the ideal weight recommendation.

Implications

While the NAS report is not likely to change the USDA - DHHS's position on fat and cholesterol, the lack of consensus among the influential agencies will probably affect the speed with which the agencies make nutrition public policy decisions Considerable controversy is likely to ensue concerning how the guidelines are to be interpreted and applied For example, there is already evidence that USDA is interpreting the guideline "Avoid too much sugar" as meaning "eat less sugar." Such interpretations would significantly affect labeling and government feeding programs in the 1980s as well as government nutrition education efforts. The guidelines would thus also have a direct impact on the food industry

Many other groups commenting on nutritional guidelines frequently mention the need for nutrition education along with a national nutrition policy In a paper discussing the need for specific dietary guidelines, the National Institute of Health stresses the need to integrate nutrition into a total health curriculum for primary and secondary education.[11] The Board of the National Nutrition Consortium, in their Guidelines for a National Nutrition Policy, strongly supports nutrition education programs [12] The Surgeon General's Report extensively discusses nutrition education for consumers, school children, health professionals and patients in medical care settings

Summary

It seems that the lack of consensus about some of the Dietary Guidelines is based not so much on a controversy about the scientific facts, but rather on what action is to be taken regarding the facts. It is believed by many, including the NAS, that scientific decisions cannot be made by consensus, but rather that the first steps in establishing public policy must be a rigorous and critical examination of the scientific facts While consensus is the democratically acceptable procedure in decision making, it may not be applicable in the interpretation of scientific facts for public policy Public policy decisions often bring in other factors, such as political considerations, emotions, moral, ethical and religious beliefs and influence from those who would benefit from that public policy. When USDA - DHHS was formulating their guidelines, they realized that 50 percent of the adult population is at risk from heart disease, diabetes, hypertension and cancer, and thus attempted to deal with these risks The NAS geared their report to the other 50 percent of the population, those not at risk

Overall, however, there is general agreement concerning a number of dietary recommendations among the federal government agencies and the cited scientific bodies, which may signal first steps toward the establishment of a national nutrition policy. It is also recognized that any nutrition guidelines need the broad-based support of comprehensive consumer education for implementation.

Recommendations for All Healthy Americans

USDA-DHHS Dietary Guidelines February, 1980	National Research Council — National Academy of Science June, 1980	Surgeon General's Report July 1979	Tripartite Agencies' Labeling Positions December, 1979	Dietary Goals of Senate Select Committee December, 1977
1 Eat a Variety of Foods	Agree	Agree	N A	Not discussed
2 Maintain Ideal Weight.	Agree	Agree	Support calorie labeling	Agree
3 Avoid Too Much Fat, Saturated Fat and Cholesterol	Disagree	Agree	Support total fat labeling, fatty acid labeling and cholesterol labeling	Agree Reduce overall fat from 40% to 30%, reduce saturated fat to 10% of total energy intake, balance with polyunsaturated fats; reduce cholesterol to 300 mg/day
4 Eat Foods with Adequate Starch and Fiber	Not discussed for general population	Support increase of complex carbohydrates	Do not support fiber labeling	Support increase of complex carbohydrates
5 Avoid Too Much Sugar.	Disagree	Agree	Support sugar labeling	Agree Support reducing refined and processed sugars by 45% to 10% of total energy intake.
6. Avoid Too Much Sodium.	Agree. Limit intake to 3-8 g salt/day	Agree	Support sodium labeling	Agree. Support limiting intake to 8 g salt/day
7. If You Drink Alcohol, Do So in Moderation.	Agree Limit to no more than the equivalent of three mixed drinks/day	Agree	N/A	Not discussed.

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2 ______________ , Food Labeling Tentative Positions of Agencies, *Federal Register*, December 21, 1979

3 Select Committee on Nutrition and Human Needs, U S Senate *Dietary Goals for the United States*, Second Edition, U S Government Printing Office, Washington, D C , December 1977

4 The Surgeon General's Report on Health Promotion and Disease Prevention, *Healthy People*, DHEW (PHS) Publication No 79-55071, U S Government Printing Office, Washington, D C , 1979

5 The National Research Council, *Toward Healthful Diets*, National Academy of Sciences, Washington, D C 1980

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7 Statement of the American Medical Association, *Nutrition and Your Health, Dietary Guidelines for Americans*, Chicago, Illinois, April, 1980

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11 Simopoulos, Artemis, P , The Scientific Basis of the 'Goals' What Can Be Done Now? *Journal of the American Dietetic Association* 74 539-542, 1979

12 The National Nutrition Consortium, Guidelines for a National Nutrition Policy *Nutrition Reviews* 38(2) 96-98, 1980

Reprinted from Contemporary Nutrition, General Mills, Inc., December 1980, Volume 5, Number 9.

Abstracts

Weinberger, J., Biscarra, V., Weitzner, I., and Sacher, M.: Noninvasive carotid artery testing; role in management of patients with transient ischemic attacks, **New York State J. Med.** 81: 1463 (Sept.) 1981.

The results of noninvasive carotid artery testing were correlated with angiography and clinical presentation on 120 carotid arteries in 60 patients. All of 24 high grade stenoses and occlusions and 17 of 19 moderate stenoses were correctly identified with the test battery of pneumoculoplethysmography, supraorbital directional Doppler, and direct carotid flow study by Doppler pulse wave form analysis. Five of 5 obstructive plaques and 11 of 15 nonobstructive plaques were also correctly identified. Clinical correlation showed that 88 percent of high-grade stenoses or occlusions were symptomatic whereas only 35 percent of ulcerated plaques were symptomatic. Cerebrovascular symptoms also occurred ipsilateral to a normal carotid bifurcation on angiography 35 percent of the time. The increased symptoms with high-grade lesions or occlusions were statistically significant ($p < 0.01$). Noninvasive carotid testing is effective in determining the extent of carotid artery disease and is useful in deciding the management of patients with transient ischemic attacks.

Hoy, W. E., May, A. G., and Freeman, R. B.: Primary renal transplant wound infections; origins, associations, bacterial flora, consequences, and prevention, **New York State J. Med.** 81: 1469 (Sept.) 1981.

Primary wound infections occurred in 21.7 percent of 175 renal transplant patients. Graft survival was profoundly reduced in patients with deep wound infections, but not compromised by superficial wound infections. Some wounds were associated with hematomas, allograft necrosis, and urinary leaks. Most staphylococcal infections probably arose from organisms implanted at operation, and many nonstaphylococcal infections, even in the absence of a urinary leak, were associated with urinary infections with the same organism. A single dose of antibiotics prevented wound infections in all patients except those with Penrose tube wound drains, which probably act as a postoperative source of wound contamination. Coincidentally the incidence of urinary tract infections was also dramatically reduced.

Reddy, A. N., Grosberg, S. J., Wapnick, S., Abrahams, J., and Hadas, N.: Cystometric changes in cirrhosis, **New York State J. Med.** 81: 1475 (Sept.) 1981.

Cystometric studies were performed in 16 alcoholic cirrhotic patients without evidence of urinary tract infection or obstruction. Thirteen patients had abnormal bladder capacity, seven (7) showed UC (uninhibited contractions), and five (5) had decreased MVP (maximal vesical pressure). Nine of the 12 patients tested had impaired peripheral nerve conduction, four (4) of whom had UC. Six patients with orthostatic hypotension had decreased bladder capacity, as did four (4) patients with frequency, urgency, and nocturia. No correlation was found between the cystometric parameters and severity of ascites, levels of blood ammonia, serum bilirubin, or enzymes. Following clinical improvements, five (5) patients had repeat cystometry which revealed improvement of bladder capacity in three (3), disappearance of UC in three (3), and normalization of MVP in two (2) patients. These studies show that autonomic bladder dysfunction occurs with unsuspected frequency in alcoholic cirrhosis and that it may be reversible.

Yassa, R.: Leukocytosis during long-term lithium treatment, **New York State J. Med.** 81: 1479 (Sept.) 1981.

Peripheral blood specimens from 34 manic-depressive patients treated with lithium carbonate were examined for white blood cell count changes. Leukocytosis was present in 13 patients (39 percent) and persisted throughout lithium treatment in 6 patients. Neutrophilia was found in 33 of 34 patients and was sustained during the lithium therapy. This side-effect has been used to treat leukopenic conditions resulting from different diseases. It should not be confused with leukocytosis due to infection.

Whitehead, E. D.: Management of prostate carcinoma, **New York State J. Med.** 81: 1481 (Sept.) 1981.

Prostate carcinoma is the most frequent cancer among men over 65 years of age, causing approximately 22,000 deaths annually. This article reviews the methods of clinical detection, current diagnostic and staging procedures, principles and therapeutic alternatives of management, and complications.

continued from page 1569

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Abstracts in Interlingua

Weinberger, J., Biscarra, V., Weitzner, I., e Sacher, M.: Examination non invasive del arterias coronari; su rolo in le tractamento del patientes con attaccos ischemic transitori, **New York State J. Med.** 81: 1463 (Septembre) 1981.

Le resultatos del examination non invasive del arterias carotide esseva correlate con le angiographia e le characteristicas clinic de 120 arterias carotide in 60 patientes. Omne 24 casos de stenoses grave e occlusiones, e 17 de 19 casos de stenoses moderate esseva identificate correctemente mediante un gruppo de tests: pneumoculoplethysmographia, supraorbital directional de Doppler e le studio del fluxo carotide directe mediante le analyse del onda pulsatile ab Doppler. Cinque (5) de 5 casos de placas obstructive e 11 de 15 placas non obstructive esseva etiam, identificate correctemente. Le correlation clinic demonstrava que 88 pro cento del stenoses grave o occlusiones esseva symptomatic; in cambio, solmente 35 pro cento del placas ulcerate esseva etiam asymptomatic. Le symptomas cerebrovasculari etiam occurreva ipsilateralmente in relation con le bifurcation normal carotide ab le angiographia in 35 pro cento del casos. Le symptomas plus marcate correspondente al lesiones graves o occlusive esseva statisticmente significative ($p < 0.01$). Le test carotide non invasive es utile pro determinar le extension del morbo arterial coronari e etiam pro decider le tractamento del patientes con attaccos ischemic transitori.

Hoy, W. E., May, A. G., e Freeman, R. B.: Infectiones primari del feritas in le transplantation renal; origines, associationes, flora bacterian, consequences e prevention, **New York State J. Med.** 81: 1469 (Septembre) 1981.

Infectiones primari del feritas in le transplantation renal facite in 175 patientes occurreva in 21.7 pro cento del casos. Le superviventia del graffo esseva intensemente reducite in le patientes con infectiones profunde del feritas chirurgic, mais sin compromisso del infectiones superficial de tal feritas. Alicun feritas esseva accompaniate de hematomas, necrose del allograffo o escappamento urinari. Le plus parte del infectiones staphylococcal probabilemente esseva originate del contamination bacterian durante le operation chirurgic, e multe del infectiones non staphylococcal aun in absentia de escappamento urinari, esseva associate con infectiones urinari per le mesme bacteria. Un sol dose de un antibiotico previneva le infectiones del feritas operatori in omne patientes, excepto in illes con tubos Penrose de drenage que, probabilemente poteva esser le causa de contamination postoperatori del feritas chirurgic al facer le transplantation renal. Coincidentalmente, le frequentia del infectiones urinari esseva, etiam, drasticmente reducite.

Reddy, A. N., Grosberg, S. J., Wapnick, S., Abrahams, J., e Hadas, N.: Studios cystometric in le cirrhosis, **New York State J. Med.** 81: 1475 (Septembre) 1981.

Studios cystometric esseva facite in 16 patientes alcoholic e cirrhotic sin evidentia de infection o obstruction del tracto urinari. In 13 patientes le capacitate vesical esseva abnormal; 7 habeva contractiones non inhibite (CNI), e 5 habeva disminution del pression vesical maxime (PVM). In 9 de 12 patientes examinate, le conduction nervose peripheric esseva disturbate; 4 de iste patientes habeva CNI. In 6 patientes con hypotension orthostatic, le capacitate vesical esseva diminuite; le mesme occurreva in 4 patientes que suffreva urination frequente e urgente e etiam nocturia. No correlation inter le parametros cystometric e le severitate del ascite, le nivellos del ammonia sanguinee, le bilirubina seric o le enzymas esseva trovate. Depost le melioramento clinic, le repetition del cystometria in 5 patientes revelava melioramento del capacitate vesical; in 3, le CNI dispareva; in 2 patientes, le PVM esseva normalisate. Iste studio demonstra que le dysfunction vesical autonomic es presentate con frequentia non suspectate in le patientes con cirrhosis alcoholic, e iste pote esser reversibile.

Yassa, R.: Leukocytose durante le tractamento prolongate con lithium, **New York State J. Med.** 81: 1479 (Septembre) 1981.

Monstras sanguine peripheric de 34 patientes con psychose manic-depressive e tractate con carbonato de lithium esseva examinate pro observar le cambios in le contos leukocytic. Leukocytose esseva observate in 13 patientes (39 pro cento); iste persisteva in 6 patientes durante toto le tractamento con lithium. Neutrophilia esseva trovate in 33 de 34 patientes e persisteva durante toto le tractamento. Iste effecto secundari del lithium esseva usate pro tractar le leukopenia resultante de diverese morbos. Le leukocytose causate per le lithium non debe esser confundite con ille debite a infectiones.

Whitehead, E. D.: Tractamento del carcinoma prostatic, **New York State J. Med.** 81: 1481 (Septembre) 1981.

Le carcinoma del prostata es le cancer plus frequente in homines de plus que 65 annos de etate; iste cancer causa approximente 22.000 mortes cata anno. In iste articulo es revistite le methodos per le detection clinic, le diagnose actual e le establimento de phases, e etiam le principios de therapias alternative e le complicationes.

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Located on Long Island, C.K. Post is a 120 bed JCAH accredited facility providing residential and non-residential alcoholism services. This is a challenging opportunity to lead a dynamic, vitally important program.

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PRACTICES AVAILABLE

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32 YEAR MEDICAL SURGICAL SOLO OPHTHALMIC practice available. Equipped, ready to occupy. Reasonable. Retiring. Watertown, N.Y. Small friendly community, nice for family. Summer winter recreation. 2 hospitals. 72 miles to 2 medical teaching centers. Reply Dept. 203, c/o NYSJM.

FAMILY PRACTICE. EXCLUSIVE OFFICE practice and adjoining 10 room house on 1½ acres, 220 ft. frontage on Oneida Lake, one-half hour from Syracuse, New York, seven room office, X-ray, EKG and Lab facilities. Excellent annual gross. Malpractice Ins. approx. 50% of N.Y.C. rate. Owner will hold mtge. with substantial down payment. Gallinger Real Estate/Better Homes and Gardens, Box 66, Syracuse, N.Y 13209. Call Shirley Fagel broker (315) 458-9100 or Ellie Hayman broker (315) 446-8291.

ROCHESTER, N.Y. Very active Family Practice for 1 or 2 physicians for sale or rent. Please contact us with short C.V. only. Reply Dept. 198, c/o NYSJM.

ACTIVE WELL ESTABLISHED ACADEMICALLY oriented practice near Albany New York. Excellent annual gross. Serves over 2,000 families. Senior man leaving for government service but will stay for 6 months. Ideal for one or two young pediatricians to enter immediately into fully involved practice. Available October 1, 1981. Reply Dept. 197, c/o NYSJM.

40 YEAR OLD GENERAL PRACTICE in active suburb of Syracuse, N.Y. available. Phone evenings (315) 458-5881 or (315) 458-0111.

MEDICAL PRACTICE FOR SALE. Physician retiring after 45 years in established general practice in Spring Valley, N.Y. Fully equipped office. Full complement of R.N.s has been retained. Practice is waiting for physician to take over. Call 6 p.m.–10 p.m. (914) 356-0125.

FOR SALE, SYOSSET, L.I., N.Y. Home and Office active general practice, at location 25 years, near shopping center, hospital. Will introduce. C. A. Scarano, M.D., 2 Comet Road, Syosset, L.I., New York. Call (516) 681-2776.

MISCELLANEOUS

TAX ACCOUNTANT-ATTORNEY, formerly with IRS, announces his availabilit to prepare professional corporation and individually designed pension plan wit IRS approval. Aside from higher retirement deductions my individually designe plans offer other advantages such as availability of money before retirement References from other doctors available. Gerald Goldberg (212) 347-4256.

APPLICATIONS AND TECHNIQUES OF ENDOSCOPY: 1981. The New Yor Society of Gastrointestinal Endoscopy will hold its annual course on Novembe 19 and 20, 1981 at the Grand Hyatt Hotel in New York. Emphasis will be o recent advances in diagnostic and therapeutic endoscopy of the pancreatico biliary and hollow visceral systems. Relationships between endoscopy, clinica science and angiography will be stressed. Course faculty includes Drs. Sherlock Shinya, Waye, Winawer and Zimmon. The course is accredited for 11 hours c AMA Category 1 credit. Course directors are Drs. Lawrence Brandt and Kevi Morrisey. For information contact Dr. Lawrence Brandt, Montefiore Hospita and Medical Center, 111 East 210th Street, Bronx, New York 10467.

TAX ATTORNEY & PENSION PLAN SPECIALIST—Former IRS Pension Pla Specialist and Revenue Agent—Professional Incorporation, Pension and Profi Sharing Plan annual administration including initial IRS qualification, annua filings, actuarial certification and employee statements of participation—N Insurance Required References upon request—Jack Wachstock, P.C., 29 Broadway, New York, N.Y. (212) 349-2248.

MISCELLANEOUS—CONT'D

SNOWMASS/VAIL "MEP" Ski Seminar on management enrichment for the Health Professional. Ski Snowmass, Colorado the week of December 19, 1981 or the week of March 20, 1982; or ski Vail, Colorado the week of February 20, 1982. Seminars conducted by noted doctors and management specialists to enrich your life. Trip expenses deductible for doctor and spouse. For information: MEP, An Education Corporation, 906 Cooper Avenue, Glenwood Springs, Colorado 81601; or 1-800-525-3402.

ST. LUKE'S-ROOSEVELT HOSPITAL CENTER Continuing Education Institute Series of weekly seminars in general medicine for the general medical practitioner. Approved for Category I credit and submitted for AAFP approval. Total hours approximately 48-50. Beginning Thursday, September 17, 1981. Complimentary parking available. For information contact: Dr. Kenneth Weinstein, 262 Central Park West, New York, N.Y. 10024. (212) 799-2627.

PHYSICIANS WANTED

EMERGENCY MEDICINE OPPORTUNITIES AVAILABLE, both part and full time, throughout New York State. Excellent income, paid professional liability insurance. Flexible schedules without on-call involvement. For details call James Thomas collect at (212) 599-0060 or forward credentials in confidence to 230 Park Avenue, Suite 303, New York, N.Y. 10017.

EMERGENCY MEDICINE—WESTERN NEW YORK: Clinical and Directorship opportunities. Excellent income, paid malpractice insurance, flexible scheduling without on-call involvement—all are available to physicians chosen. For further details send credentials in confidence to James Thomas, 230 Park Avenue, Suite 303, New York, NY 10017 or call Collect (212) 599-0060.

RESIDENCY TRAINED FAMILY PRACTITIONER for busy family practice on Staten Island. Excellent salary, malpractice paid. Write c/o S. D. Roberts, M.D., P.C., 671 Annadale Rd., Staten Island, N.Y. 10312.

INTERNIST—EXCELLENT OPPORTUNITY for group practice in Geneva, N.Y.—July 1, 1981 or ASAP. Needed—Board trained or certified internist to assume established practice in group of 13. Six other certified internists—generous salary, full partnership in two years—subspecialty interest or training desirable. Contact Joseph Moose, Business Manager, at Geneva Medical Associates, 324 West North Street, Geneva, N.Y. 14456 (315) 789-6166.

GENERAL SURGEON—54-bed hospital seeking Board Certified or Eligible surgeon. Will assist in setting up private practice. Beautiful rural setting, along Lake Ontario, 30 miles east of Rochester, N.Y. Send resume to Gerald Vozel, Administrator, Myers Community Hospital, P.O. Box 310, Sodus, NY 14551.

M.D.-BOARD ELIGIBLE OR CERTIFIED internist-cardiologist to associate with group in rapidly growing area in Ocean County, New Jersey. Salary with eventual partnership. Please send curriculum vitae to: Dept. 193, c/o NYSJM.

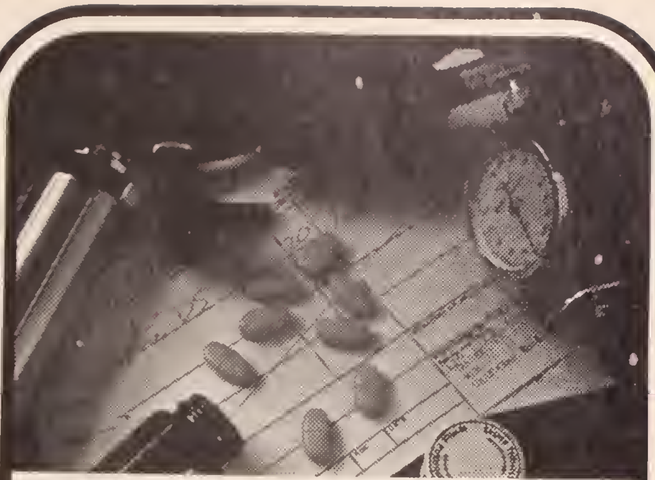
INTERNIST—BOARD ELIGIBLE—Friendly rural area 90 minutes from Buffalo. Extensive summer/winter recreational facilities. Excellent schools, active community. Contact Mr. Sumner R. Andrews, Administrator, Cuba Memorial Hospital, 140 W. Main St., Cuba, N.Y. 14727 (716) 968-2000 ext. 312.

ROCHESTER PROCTOLOGIC, COLON RECTAL AND SURGICAL Associates seeking general surgeon with Colon and Rectal training and experience in Colonoscopy. Lucrative six figures. Option open to buy in. Contact James P. Fleming, 125 Meigs St., Rochester, N.Y. 14607. Telephone 1-716-663-6999.

FAMILY PRACTITIONER, INTERNIST—private practice opportunities either solo or group. Incentives provided. Picturesque Hudson River Village urgently needs several physicians. Quality practice opportunity 1¼ hour New York City, train/auto. Great area for children. Call or write Paul Kaye, M.D., The Julia L. Butterfield Hospital, Cold Spring, N.Y. 10516, (914) 265-3642.

OBSTETRICS/GYNECOLOGY CHAIRMANSHIP St. Clare's Hospital, New York City. Applications are being sought for the position of Chairman of the Department of Obstetrics/Gynecology. St. Clare's Hospital and Health Center is an Equal Opportunity Employer. Candidates should have experience in clinical care, administration and teaching. Nominations should include curriculum vitae and bibliography and should be submitted to: Donald L. Gordon, M.D., Chairman, OB/GYN Search Committee, Medical Staff Office, St. Clare's Hospital and Health Center, 415 West 51st Street, New York, N.Y. 10019. (212) 586-1500, Ext. 581/2.

OBSTETRICIAN—GYNECOLOGIST Immediate opening for Board Certified/Eligible OB/GYN to join current OB/GYN associated with 15 man multispecialty group. Affiliate with large, modern community hospital in suburbs of New York City. If interested, send C.V. to Dept. 201, c/o NYSJM.



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POSITIONS WANTED

EXPERIENCED INTERNIST-CARDIOLOGIST wishes to relocate—seeks association with partner or group in Nassau or Suffolk Counties. Reply Dept. 194, c/o NYSJM.

RADIOLOGIST DESIRES LOCUM TENENS work. University trained in general radiology with special expertise in arteriography. Available for vacation coverage after October 1st. Call (303) 925-2331.

RHEUMATOLOGIST-INTERNIST, 32, ABIM in both, with excellent clinical training and practice-teaching experience, desires association with subspecialty/group/associate. Prefer N.Y. Metro area, but will consider all. Dept. 204, c/o NYSJM.

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Emergency Medicine Positions—available with emergency physician group in PA, NY, NJ, VA, WVA, MD, KY and throughout New England, the Southeast, the Midwest, including all suburban, rural and metropolitan areas. Fee-for-service with minimum guarantee provided. Malpractice paid. Practice credits toward board certification. Physician department directors also desired. Please send resume to: NEEMA Emergency Medical, Suite 400, 399 Market Street, Phila., PA 19106 or phone 215-925-3511 in PA, or 800-523-0776 outside PA.

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SAVINGS BONDS

PRACTICES WANTED

OPHTHALMOLOGIST, BOARD CERTIFIED desires to purchase practice in the New York City or suburban area. Confidence Maintained. Please contact Dept. 168, c/o NYSJM.

UROLOGIST BOARD CERTIFIED FACS 49 years old well trained pediatric adult urology university medical center, presently in multispecialty group, seeking relocation as a solo urologist or partner in small urology group, N.Y., N.J., Penn. licenses, available now. A. Colalillo, M.D., P.O. Box 68, Freeport, Illinois 61032, Telephone: (815) 235-3847.

OPTHALMOLOGIST: Personable to associate or purchase—North Shore Queens or Nassau. Reply Dept. 202, c/o NYSJM.

GYNECOLOGIST-OBSTETRICIAN, Well trained (Laparoscopy, infertility, colposcopy, etc.) with 12 year established practice in Queens, N.Y., wishes to purchase an OB-GYN practice or establish an association in Suffolk or Westchester County. Reply Dept. 200, c/o NYSJM.

INTERNIST-NEPHROLOGIST—Board Certified in both specialties. Seeking practice opportunity in New York City—Long Island area. Available immediately. Reply Dept. 196, c/o NYSJM.

BOARD CERTIFIED NEUROLOGIST AND PSYCHIATRIST with additional Boards on both EMG and EEG seeking opportunity. Reply to Dept. 183, c/o NYSJM.

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MANHATTAN'S EAST SIDE, 133 EAST 73RD ST., N.Y.C. LEXINGTON Professional Center, Inc. Part time & full time medical, dental, psychiatric office suites. Furnished & equipped. 24 hour answering service; receptionist. Mail service; cleaning. X-ray & clinical laboratory on premises. No leases necessary. Rent by the hour or full-time. (212) 861-9000.

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THE PROFESSIONAL'S PROFESSIONAL—We offer expert consultation on the rental, sublet, or purchase of Manhattan professional offices and Co-ops. For personal attention in all matters including appraisal, please contact: Nathan H. Friedman, V.P.-Douglas Elliman-Gibbons & Ives, Inc., 575 Madison Ave., N.Y., N.Y. 10022. (212) 832-5571.

240 PATCHOGUE/YAPHANK ROAD, East Patchogue, Long Island—Suites available adjacent to Brookhaven Memorial Hospital. Nassau County (516) 222-1222, Suffolk County (516) 499-7900.

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HOME/OFFICE—IDEALLY SITUATED in prestigious Washington Ave. area Plainview Long Island—Luxurious 5 bedroom/2½ bath Colonial—central air 5 zone heat, country kitchen, intercom, 2 car garage, professionally landscaped Plus attached 4 room plus office, separate entrance. Many extras—mint con dition. (516) 692-9595.

HEWLETT, NEW YORK, 126 East Rockaway Road, large all brick builders hom with entire downstairs of 1500 sq. ft. convertible for medical offices, plus 5 bed rooms, fully air conditioned, gas heat, burglar and fire alarm system, 1/3 acre wit underground sprinklers, circular driveway, on main road, $200,000.00, call owne (516) 746-1300.

OFFICE SPACE AVAILABLE FOR RENT for physicians of surgical specialt Suitable for satellite office or consultation practice. Albany, New York. Cal on weekdays (518) 465-6068.

RHINEBECK—NEW YORK—LAND FOR SALE: Wooded 11+ acres with lon frontage and two streams. Ideal for house site or subdivision. Near Amtra and main roads. $47,000.00. Good Terms. Write owner P. O. Box 251, Accor New York 12404 or call (212) 477-1602; (212) 254-5085.

DOCTOR'S OFFICE, CLIFFSIDE PARK, N.J. first town south of Fort Le population 30,000, very few doctors, modernized 1600 Sq. Ft. ground floo parking, hi rise affluent and blue collar area, emerging commuter town, long leas (201) 664-0870.

FOR RENT OR SALE Diagnostic Radiology office, Mt. Kisco, New York, 1054 Tele: (914) 666-7772.

HOUSE FOR SALE—GREAT NECK—Village of Saddle Rock—Split leve beamed cathedral ceiling, large separate dining room, 3 bedrooms plus maic or 4th bedroom, 3 baths, panelled den, finished basement, central air conditionir automatic sprinkler system, burglar and fire alarm systems, aluminum sidin plus many extras, ⅓ acre. Principals only. $285,000. (516) 466-9372.

IDEAL FOR PROFESSIONAL USE Handsome 10 room brick Georgia Coloni center entrance, approximately an acre beautifully landscaped. North side Montauk Highway. Asking $175,000. Call weekdays (212) 889-7136, weeken (516) 669-2008.

HOME AND ATTACHED M.D. OFFICE on Union Turnpike near Long Isla Jewish Hospital. 5 bedrooms, 2½ baths, finished basement, new kitchen, e cellent condition. 6 rooms medical office, separate entrance, central a/c, ala system. Price $250,000. Call (212) 464-4454.

what goes on
IN
CONTINUING MEDICAL EDUCATION

NEW YORK STATE **OCTOBER 1981**

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Please send information to the Editor, WHAT GOES ON,
420 Lakeville Road, Lake Success, New York 11042
Telephone 516-488-6100.

Compiled by the Division of Scientific Activities
George J. Lawrence, Jr., M.D., Director
Mrs. Elizabeth H. Daepp, Editor
Philip Keating, Director, Division of Finance

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NEW YORK CITY

Astoria General Hospital, co-sponsored by The Albert Einstein College of Medicine

* Albert Einstein College of Medicine
1300 Morris Park Avenue
Bronx
October 3, 9:00 a.m.–11:00 a.m.
POST MYOCARDIAL INFARCTION: MANAGEMENT AND REHABILITATION
Martin N. Cohen, M.D.
FEE: 125.00 CREDIT: AMA Cat. 1 (26 hrs.)
* 1300 Morris Park Avenue
October 17, 9:00 a.m.–11:00 a.m.
CURRENT CONCEPTS OF THE MANAGEMENT OF HYPERTENSION
Philip Lief, M.D.
* 1300 Morris Park Avenue
October 31, 9:00 a.m.–11:00 a.m.
THE ADULT RESPIRATORY STRESS SYNDROME
Joseph Reichel, M.D.

Albert Einstein College of Medicine and Montefiore Hospital and Medical Center

* The Sheraton Centre
7th Avenue at 52nd Street
October 3–6, Saturday–Tuesday
REVIEW FOR SURGERY BOARDS AND RECERTIFICATION EXAMS
FEE: $400.00

Seminars & Symposia, Inc.

1290 Avenue of the Americas
October 5–18
HEART DISEASE, CANCER & HEALTH
AMA Cat. 1 (26 hrs.)
For further information contact Nathaniel Finby, MD, Seminars & Symposia, Inc., 1290 Avenues of the Americas, NY, NY 10019 Tel: 212/489-7790.

Westchester Square Hospital in collaboration with Albert Einstein College of Medicine

2475 St. Raymond Avenue
Bronx
Conference Room 2475
October 14, 4:00–5:30 p.m.
MALABSORPTION SYNDROME
Howard Sherman, M.D.
AMA Cat. 1 (2 hrs.)
October 21, 4:00–5:30 p.m.
PERMANENT PACEMAKERS
Emanuel Goldberger, M.D.
AMA Cat. 1 (2 hrs.)

Albert Einstein College of Medicine of Yeshiva University

1300 Morris Park Avenue
* The Grand Hyatt Hotel
Park Avenue, Grand Central
October 16–17
PEDIATRIC OTOLARYNGOLOGY
A PRACTITIONERS' GUIDE TO MIDDLE EAR DISEASE AND MANAGEMENT OF UPPER AIRWAY PROBLEMS
AMA Cat. 1 (14 hrs.)
For further information please contact: Office of Continuing Professional Education, Montefiore Hospital and Medical Center, 111 East 210th Street, Bronx, NY 10467.
Tel: 212/920-6676.

Veterans Administration Medical Center

800 Poly Place
Brooklyn
October 27, 1981
NEUROLOGICAL COMPLICATIONS OF CANCER
CREDIT: AMA Cat 1 (8 hrs.)
For further information concerning the program, please contact: Walter R. Slade, Jr., M.D. Chief, Neurology Service, VA Medical Center, 800 Poly Place, Brooklyn, NY 11209. Tel: 212/836-6600, Ext. 451.

New York University Post-Graduate Medical School

550 First Avenue
* New York University Medical Center
Alumni Hall
October 15–16
DIFFERENTIAL DIAGNOSIS IN DERMATOPATHOLOGY
A. Bernard Ackerman, M.D.
FEE: $285.00 AMA Cat. 1 (12 hrs.)

The New York Hospital–Cornell Medical Center

525 East 68th Street
* Payne Whitney Clinic
October, 1981–May, 1982
BEHAVIOR THERAPY
Helen Singer Kaplan, M.D.
For further information concerning registration and tuition fees contact: Ruth Pollack, PWC 111, The NY Hospital-Cornell Medical Center, 525 East 68th Street, NY 10021. Tel: 212/472-4344.
* Uris Auditorium
1300 York Avenue
October 17, 9:00 a.m.–5:00 p.m.
WORKSHOP ON MOVEMENT DISORDERS
Charles A. Shamoian, M.D., Ph.D.
For further information concerning registration and tuition fees contact: Ruth Pollack, PWC 111, The NY Hospital-Cornell Medical Center, 525 East 68th Street, NY 10021. Tel: 212/472-4344.
* Uris Auditorium
1300 York Avenue
October 30, 9:00 a.m.–4:30 p.m.
ANTIDEPRESSANTS FOR THE EIGHTIES: PHARMACOLOGY AND CLINICAL USAGE
Symposium of the World Psychiatric Association-American Psychiatric Association Regional Meeting.
Drs. J. John Mann, James H. Kocsis, Pre-Congress
* Payne Whitney Clinic
October 24, Saturday 9:00 a.m.–5:00 p.m.
DANCE/MOVEMENT THERAPY
Virginia Klein, M.D.
For further information concerning registration and tuition fees contact: Ruth Pollack, PWC 111, The New York Hospital-Cornell Medical Center, 525 East 68th Street, NY 10021. Tel: 212/472-4344.

New York Academy of Science & the Semmelweis Scientific Society

2 East 63rd Street
October 23, 8:00 p.m.
EVALUATION AND TREATMENT OF THE HYPERTENSIVE PATIENT
Stanley E. Gitlow, M.D.
For further information please write or phone: Richard G. Merkler, M.D., 239 East 79th Street. Tel: 212/554-7589.

Albert Einstein College of Medicine

1300 Morris Park Avenue
* Grand Hyatt Hotel

Park Avenue & Grand Central
October 24, 1981
SECOND ANNUAL TRANSPLANT SYMPOSIUM
CREDIT: AMA Cat. 1 (8 hrs)
For further information please contact: Office of Continuing Professional Education, Montefiore Hospital and Medical Center, 111 East 210th Street, Bronx, NY 10467.
Tel: 212/920-6674.

The Page and William Black Post-Graduate School of the Mt. Sinai School of Medicine.

* Loeb Auditorium
301 East 17th Street
October 28, 8:15 a.m.–4:30 p.m.
FRONTIERS IN COMMUNICATIONS: AN OVERVIEW OF RECENT DEVELOPMENTS IN COMMUNICATIVE DISORDERS
Sylvia Balick, Ph.D.
FEE: $30.00 CREDIT: AMA Cat. 1 (6 ½ hrs.)

The Page and William Black Post-Graduate School of the Mt. Sinai School of Medicine

* Podell Auditorium, Beth Israel Medical Center
10 Nathan D. Perlman Place
October 28, November 4, 18, December 2, 9, 1981
7:00 p.m.–9:00 p.m.
STRUCTURAL FAMILY THERAPY: THEORY AND PRACTICE
Dorcas Cofer, Ph.D., Jorge Colapinto
FEE: $80.00 CREDIT: AMA Cat. 1 (9 hrs.)

* Podell Auditorium
October 29, November 19, December 19, 1981
7:30 p.m.–10:00 p.m.
MINUCHIN UNABRIDGED
Dorcas Cofer, Ph.D., Jorge Colapinto
FEE: $20.00 CREDIT: AMA Cat. 1 (7 hrs.)

Lenox Hill Hospital

100 East 77th Street
October 30–November 1, 1981
HEAD AND NECK RADIOLOGIC DIAGNOSIS
FEE: $200.00 RESIDENTS: $100.00
For further information please contact: Guy D. Potter, M.D., Department of Radiology, Lenox Hill Hospital, 100 East 77th Street, NY 10021. Tel: 212/794-4305.

NASSAU COUNTY

Nassau Academy of Family Physicians Cosponsored by AAFP

* Salisbury Inn,
Eisenhower Park, East Meadow,
October 28, 1981, 8:30 a.m.–5:30 p.m.
GASTROENTEROLOGY SYMPOSIUM
FEE: $25.00 CREDIT: AMA Cat. 1 (7 ½ hrs.)
For further information contact: Martin E. Panzer, M.D., Carman Road and Dorothy Gate, Massapequa, NY 11758.

SUFFOLK COUNTY

State University of New York at Stonybrook

* Health Sciences Center
October 3, 1981
UPDATE IN CARDIOLOGY: NEW TECHNIQUES IN CARDIAC DIAGNOSIS AND TREATMENT
FEE: $60.00 CREDIT: AMA Cat. 1 (5 hrs.)
For further information please contact: Tamarath K. Yolles, M.D., Associate Dean for CME,
Suny at Stonybrook, Stony Brook, NY 11794.
Tel: 516/246-2094/2135.

* Health Sciences Center
October 30, 1981
HYPNOSIS, MEDICINE AND PSYCHIATRY
FEE: $55.00 CREDIT: AMA Cat. 1 (6 hrs.)
For further information contact: Tamarath K. Yolles, M.D., Associate Dean for CME, Suny at Stony Brook, Stony Brook, NY 11794. Tel: 516/246- 2094/2135

KIAMESHA LAKE

The New York Cardiological Society, Inc. 420 Lexington Avenue

* Concord Hotel
Kiamesha Lake
October 3–4, 1981
OPTIMAL MANAGEMENT OF THE ADULT WITH HEART DISEASE
CREDIT: AMA Cat. 1 (6 hrs.)
For further information contact: New York Cardiological Society, 420 Lexington Avenue, Suite 1936, NY 10017.
Tel: 212/682-4041.

NEWBURGH

Medical Society of the County of Orange, the NY Medical College, the Mid-Hudson Consortium for the Advancement of Medical Education & the St. Luke's Hospital

465 Route 9W South
* St. Luke's Hospital
Cafeteria
October 21, 1981, 9:00–11:00 a.m.
OFFICE MANAGEMENT OF THE ELDERLY PATIENT—THE DEPRESSED AND THE SENILE
Melvin J. Steinhart, M.D.
NO FEE CREDIT: AMA Cat. 1 (2 hrs.)

BUFFALO

Rosewell Park Memorial Institute co-sponsored by the Cancer Control Program of the Institute, and the American Cancer Society, New York State Division and Erie County Unit

666 Elm Street
Buffalo
October 1–2, 1981
NUTRITION AND CANCER
Fred Rosen, M.D.
FEE: $25.00
For further information contact: Gayle Bersani, R.N., Cancer Control Coordinator, Roswell Park Memorial Institute, 666 Elm Street, Buffalo, NY 14263. Tel: 716/845-4406.

State University of New York at Buffalo

* Sheraton Inn
Buffalo East
October 15, 1981
CAT SCANNING FOR THE PRACTICING PHYSICIAN

For further information contact SUNY at Buffalo, 3435 Main Street, Buffalo, NY 14214. Tel: 716/831-5526.

SYRACUSE

SUNY-Upstate Medical Center

750 East Adams Street
Syracuse
* Hotel Syracuse
South Warren Street
Downtown Syracuse
October 15, 1981
SLEEP DISORDERS FOR THE PRACTICING CLINICIAN
FEE: $75.00 CREDIT: AMA Cat. 1. (7 hrs.)
* Mariott Inn
Syracuse
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Abstracts

Guattery, J. M., Aroesty, S., Wilson, H., Rubulis, A., Flood, M. S., and Faloon, W. W.: Copper and ceruloplasmin: serial studies in viral and alcoholic liver disease, **New York State J. Med.** 81: 1603 (Oct.) 1981.

Twenty-three patients with liver disease—4 acute viral hepatitis, 3 with chronic active hepatitis, 10 acute alcoholics, and 6 chronic alcoholics—had serial determinations of serum copper and ceruloplasmin, and graphic and calculated determinations of nonceruloplasmin copper and liver-function tests. Variations in copper and ceruloplasmin were often independent of results of liver tests. In three of four patients with viral hepatitis, both copper and ceruloplasmin were elevated, returning to normal by the third week. In acute alcoholic disease, low initial values rose to normal or became elevated with convalescence. Persistent elevation of copper and ceruloplasmin was characteristic of chronic disease. Elevated nonceruloplasmin copper, best demonstrated in graphic analysis, was found in all groups, even when both copper and ceruloplasmin were in the "normal" range. Disproportionate elevation of copper over ceruloplasmin suggests the presence of nonceruloplasmin copper which may be bound to other serum components and which disappears with convalescence.

Reemtsma, K., and Weber, C. J.: Endocrine transplantation; progress, **New York State J. Med. 81:** 1613 (Oct.) 1981.

Autotransplantation of human parathyroid fragments has become conventional therapy in many medical centers involved in surgical treatment of primary and tertiary hyperparathyroidism. Advances in technical aspects of in vitro preservation and physiologic studies of human parathyroid cells now allow prediction of graft function and patient evaluation prior to parathyroid autografting. Criteria for patient selection for parathyroid autografting are under development at the present time. Experimental data demonstrating reestablishment of glucose homeostasis after islet transplantation in animals have encouraged investigations of human islet isolation, preservation, and auto- and allotransplantation in several centers. Success with human islet transplantation thus far has been incomplete, relating at least in part to technical difficulties in islet isolation and preservation prior to transplantation. At present, human islet transplantation remains an experimental procedure which holds great potential promise for therapy of diabetic patients in the years to come in the treatment of human diabetics.

Faden H.: Etiologic agents of meningitis in early life, **New York State J. Med.** 81: 1618 (Oct.) 1981.

Changes in bacterial causes of meningitis over the past years have led to the use of various empiric antibiotic regimens. A review of 248 cases of meningitis among children less than 17 years of age during the period 1973 to 1978 documented a significant shift in bacteriologic agents of

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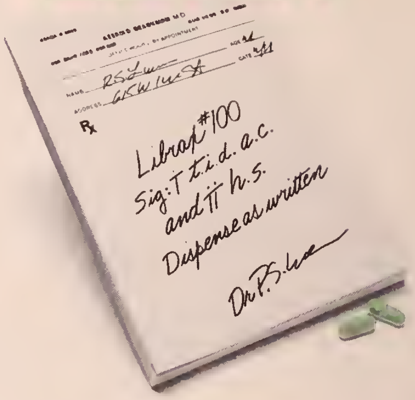

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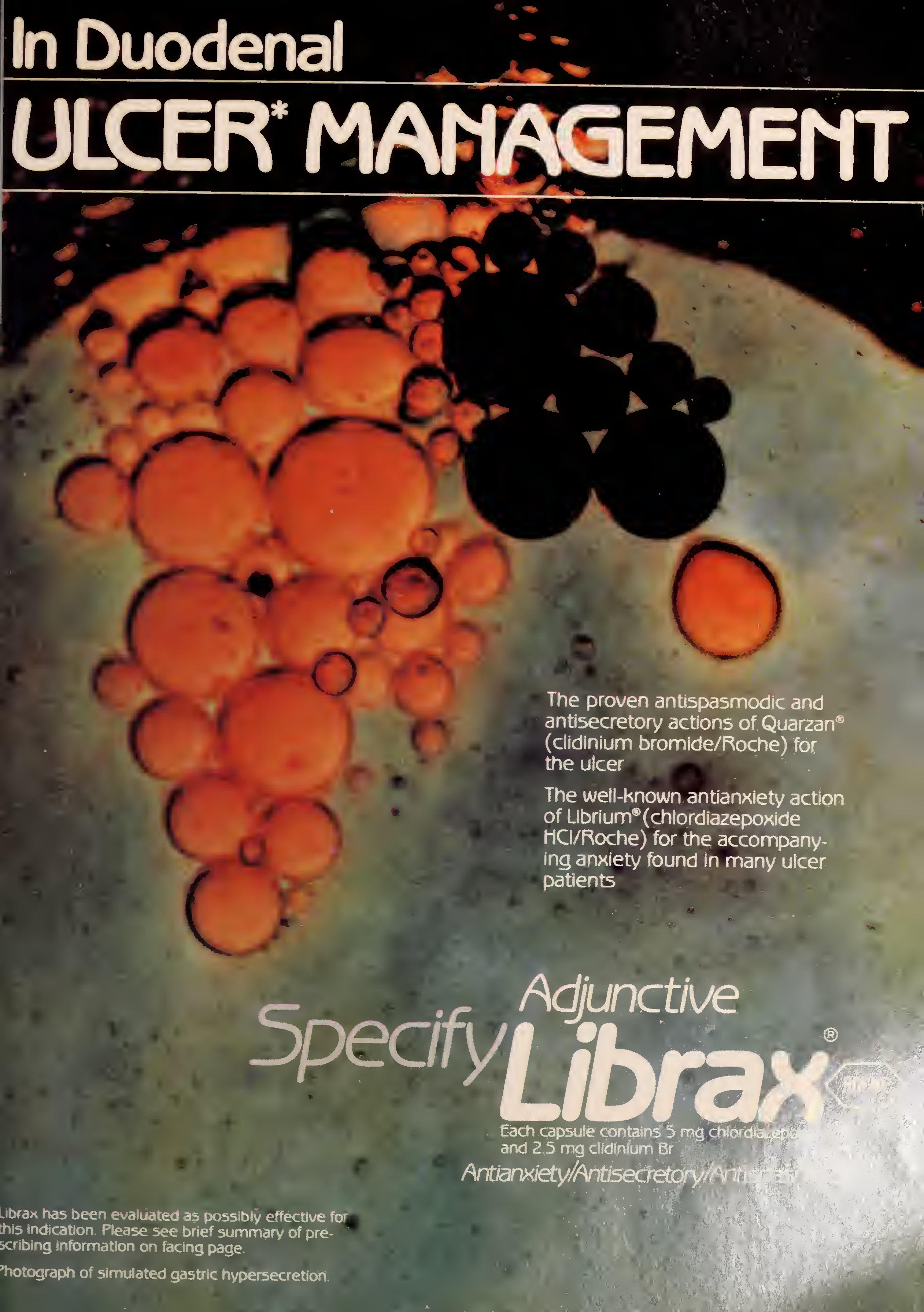

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Letters to the Editor

Dr. Frankenstein, I Presume?*

To the Editor: I read John T. Prior, M.D.'s paper *Dr. Frankenstein, I Presume?* with considerable interest. However, Dr. Prior's premise that costs of medical care are under the control of the practicing physician simply does not face facts.

The fact that we have a steadily aging population, along with our ability to prevent death or to prolong the act of dying, must be considered. The 85-year-old stroke patient who has been unconscious for six months must be kept alive by tube feeding is an example. This is a moral decision of society as a whole, not a decision of the medical profession. The increasing number of elderly patients who require nursing home care at over $20,000 a year push up the costs of medical care. They are the responsibility of the medical profession and cannot be pushed aside into a closet and forgotten. Their keep, however, is charged against the national budget for medical care.

In the United States we feel that medical care should consider the comfort of the patient as well as being life saving, whereas in England under the National Health Service the comfort side is often forgotten. An 82-year-old Englishman, the father of one of my patients, was blind from bilateral cataracts. He was put on a two-year waiting list and therefore elected to have the operation done privately at his own expense—a very wise decision.

Twenty-nine percent of the population of England are completely without teeth,[1] having received free dental care from the National Health Service for the 33 years since its inception in 1948. Is the cost of orthodontia for our young and crowns and fixed bridges for our adult patients money down the drain or is the increased comfort worth while? Our citizens have voted for it with their wallets and their pocket books—for a service not usually available from the National Health Service in England. Likewise, they will have their hernias operated on even if they are over 65 (not usually done for this age group under the National Health Service), and will not tolerate the long hospital waiting lists and the old and inefficient hospital buildings still in use in Great Britain. Also, the American people will not tolerate people dying of renal insufficiency for the lack of dialysis machines, as happens in England.[2]

The lack of control of builders, where minimum standards are set without any ceiling in the cost of architectural designs, leads to enormous cost inflation. Examples of this are two new medical school buildings, both erected in New York State in the 1970s. The New York Medical College building at Valhalla is a comfortable, functional, and relatively inexpensive two-story building requiring minimal maintenance and running costs. At the other end of the spectrum is the massive multistoried Health Sciences Center of the State University of New York at Stony Brook—a veritable United Nations palace with cathedral ceilings requiring escalators between the floors, enormous corridors and open spaces, and only a small percentage of the floor area actually used for lecture room, laboratory, and office purposes. The enormous maintenance costs of such architectural design must have been ignored by the politically appointed bureaucrats who approved it, yet its costs will be figured into medical expense costs for at least the next 50 years. This is being repeated again and again in the construction of unnecessary masonry in our hospitals, in plans being frozen and declared to be unalterable at the time they are presented to medical staff committees for review, as happened in one case in which I was involved. It is also questionable as to whether paying an architect a previously negotiated percentage of the building cost as his fee necessarily leads to maximum economy in construction and maintenance costs.

It is well known that publicly run clinics are relatively expensive compared to private offices. This is largely due to inefficient utilization of staff. Although the cost of seeing a patient in the public clinics in Suffolk County is approximately $50 a visit, greatly exceeding the cost of an office visit to a private physician, the Medicaid schedule—a maximum of $14.50—is a positive disincentive to efficient utilization of the private physician. This is a political, not a medical, decision.

It behooves us to realize that the medical profession should not accept wrongly assumed feelings of guilt for the growing costs of medical care.

M. G. JACOBY, M.D.
152 North Ocean Avenue
Patchogue, N.Y. 11772

References

1. Notes and News: Dental health, Lancet 1: 1273 (June 6) 1981.
2. Enthoven, A. C.: Shattuck lecture, Cutting cost without cutting the quality of care, New England J. Med. 298: 1229 (June 1) 1978.

Dr. Prior's reply

To the Editor: Dr. Jacoby's comments call to mind the old saw that says "when you're up to your umbilicus in alligators its hard to recall that your original intent was only to drain the swamp." I certainly had no intent to lay all medicines' ills on the doorstep of the medical profession but only to emphasize that we physicians are caught in an explosion of technological advances which we can't deny to our patients, almost without regard to the cost!

I concur with Dr. Jacoby's ideas on the English National Health Service but can't comment on Stony Brook since I've never visited the Health Sciences Center.

JOHN T. PRIOR, M.D.
Pathologist and Director of Laboratories
Community-General Hospital
of Greater Syracuse
Broad Road
Syracuse, N.Y 13215

Physicians unawareness of salt in private wells

To the Editor: The value of salt restriction in the control of hypertension has been known for decades. Some physicians have gone to great extremes in limiting the intake of salt and the federal government has an ongoing battle with food manufacturers vis-a-vis the listing of the amount of salt in prepared foods. Many dietitians and nutritionists have developed numerous salt-free diets.

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* Prior, J. T.: Dr. Frankenstein, I presume? Who's to kill, or should we kill the monster we have created?, New York State J. Med. 81: 1266 (July) 1981.

A source of salt intake from water has always been considered. The New York State Sanitary Code contains the following statement: "Water containing more than 20 mg/liter of Sodium should not be used for drinking for those on severely restricted Sodium diets. Water containing more than 270 mg/liter should not be used for drinking for those on moderately restricted Sodium diets."

In this Health District of approximately 260,000 people, there are in the vicinity of 6,000 private wells. The local water companies report periodically on the salt content of water in their district region systems and through the years, the studies indicate that the range was 5 to 50 mg. per liter.

The purpose of this letter is to pinpoint a source of excessive amounts of salt from privately owned wells.

Although the Rockland County Health Department has been performing all the required water testing under the Federal Safe Drinking Water Act and the New York State Sanitary Code which primarily involves bacteriological analyses, inorganic and organic contaminants, the testing for salt content has not been mandated in private wells. The Rockland County Health Department also is involved through its Public Health Education Division in Hypertension Control.

A resident of the County, in response to becoming aware of salt intake, reported to the Department that for some peculiar reason, they had a somewhat salty taste to their water. Immediate studies were done and the first sample revealed a concentration of 400 mg. per liter of sodium and 950 mg. per liter of chlorides. The residents involved were being treated for hypertension and they and their physician were informed about the salt content. They switched to a low-salt water for drinking and cooking. Further testing indicated concentrations of 130 mg. per liter of sodium and 480 mg. per liter of chlorides. A third sample indicated 110 mg. per liter of sodium and 290 mg. per liter of chlorides. This lowering of the salt content resulted from the Health Department's engineers advising the relocating of a swale which drained from a State-owned salt storage area.

The department next surveyed the County and determined all other salt storage piles whether owned by the State, County, or school districts, and proceeded with standard methods of testing private wells for salt until a periphery was reached where no increased salt was found. In each case where well water had increased salt content, they were in areas where current or previous salt piles were present. Appropriate steps were taken by all concerned to correct the situation and in each case where hypertension had been diagnosed, the users of the wells were advised of their salt content.

DANIEL HYMAN, M.D.
Commissioner of Health
Rockland County Department of Health
Pomona, N.Y. 10970

continued from page 1705

promulgating minimum standards for the accreditation of educational programs for training and minimum standards for certification. The bill does not apply to practitioners.

The HHS Secretary also is called on to develop model state legislation making it unlawful for noncertified people to perform radiologic procedures and to provide that educational requirements for certification will be limited to those programs accredited by the state.

The provision gives the HHS Secretary authority to set guidelines for safe levels of radiologic exposure for medical and dental procedures.

There are no provisions to enforce compliance by the states, but the standards would be applicable to federal agencies.

* * *

Health insurers lack financial incentives to provide benefits for preventive care, a federally-sponsored cost-benefit analysis has shown.

The upfront cost of paying for hypertension screening or Pap smears is greater than the long-term savings the health insurer can expect to reap, the Congressional OTA (Office of Technology Assessment) concluded.

Though the costs of screening accrue only to the insurer, the benefits are widely distributed. They accrue—in the form of better health and productivity—to the people screened, their life insurers, employers, government, and society. The health insurer's benefits are reduced further because some of the people screened eventually leave the plan.

The OTA report suggested that the government could provide incentives such as tax breaks and financial assistance to establish preventive health programs in the private sector. Public-private partnership is needed, the report said, because prevention programs "are often too expensive for either the public or private sector to undertake independently."

The OTA report was one of 17 case studies of cost-effectiveness analysis of medical technologies.

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meningitis in early life. GBS (group B streptococcus) (59 percent), GNB (gram-negative bacilli) (26 percent), HIB (*Haemophilus influenza type B*) (9 percent), NM (*Neisseria meningitidis*) (3 percent), and SP (*Streptococcus pneumoniae*) (3 percent) caused meningitis in the first month of life. In the second month, HIB (33 percent), SP (25 percent), NM (25 percent), and GBS (17 percent) were the etiologic agents; GNB were no longer isolated. GBS (33.3 percent) continued to be a major cause of meningitis in the third month along with HIB (33.3 percent), and SP (33.3 percent). HIB (73 percent), SP (14 percent), and NM (13 percent) were the only bacterial isolates beyond three months. These data document two important shifts early in life: (1) HIB is becoming more common in the first month. (2) GNB are no longer a significant cause of meningitis in the second month. Based on the latter observation, ampicillin and chloramphenicol would be the most appropriate antibiotic regimen for the initial management of meningitis in children beyond the first month. Further studies will be needed to determine the efficacy of this antibiotic combination against GBS which remains a major problem through the third month.

Bevelaqua, F. A., Kamelhar, D. A., Campion, J., and Christianson, L. C.: *Mycobacterium fortuitum-chelonei*; two patients with fatal pulmonary infection, **New York State J. Med.** 81: 1621 (Oct.) 1981.

Mycobacteria of the *fortuitum-chelonei* complex, when found in the sputum, are usually saprophytic colonizers. Although pulmonary disease due to these organisms does occur, it is generally indolent in nature and most frequently found in association with chronic aspiration in patients with megaesophagus. The two cases presented here demonstrate that progressive, fatal pulmonary disease, unresponsive to chemotherapy, can be caused by this group of organisms. They also serve to emphasize the need for the development of effective guidelines to help distinguish saprophytic colonization from progressive pulmonary disease.

Patel, N. P., Ward, J. N., Fernandes, M., and Lavengood, R. W.: Carcinoma of renal pelvis, **New York State J. Med.** 81: 1625 (Oct.) 1981.

The case histories of 30 patients with proved carcinoma of the renal pelvis were reviewed. In half these patients, the tumor had extended outside the kidney or renal pelvis (Group IV) at the time of diagnosis. The overall survival rate was poor; it was related to grade and stage of the tumor. Patients with a low-grade and low-stage tumor had a better survival rate than did those having anaplastic infiltrating lesions, which had a poor prognosis. The natural history of the disease and results of treatment are discussed. A patient with a proved squamous cell carcinoma of the renal pelvis, who survived eight years following nephrectomy, and excision of a solitary pulmonary metastasis is presented.

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Abstracts in Interlingua

Guattery, J. M., Aroesty, S., Wilson, H., Rubulis, A., Flood, M. S., e Faloon, W. W.: Cupro e ceruloplasmina; studios seriate in morbos hepatic viral e alcoholic, **New York State J. Med.** 81: 1603 (Octobre)

Vinti-tres (23) patientes con morbo hepatic (4 con hepatitis viral acute e 3 con hepatitis chronic active) habeva determinationes seriate del cupro e ceruloplasmina seric e etiam determinationes graphic e calculate del cupro "non-ceruloplasmina" e tests del function hepatic. Le variationes del cupro e ceruloplasmina frequentemente esseva independente del resultatos del tests hepatic. In 3 de 4 patientes con hepatitis viral, le cupro e le ceruloplasmina esseva elevate, e retornava al normal al tertio septimana. In le morbo alcoholic acute, le nivellos initial basse esseva elevate al nivello normal o esseva elevate durante le convalescentia. Le elevation persistente del cupro e ceruloplasmina esseva characteristic in le morbo chronic. Le cupro "non-ceruloplasmina" elevate, meliormente demonstrate in analyse graphic, esseva trovate in omne gruppos, mesme quando le cupro e le ceruloplasmina esseva intra limites normal. Le elevation disproportionate del cupro supra le ceruloplasmina suggere le presentia del cupro non-ceruloplasmina que pote esser ligate a altere componentes del sero e que dispare in le convalescentia.

Reemtsma, K., e Weber, C. J.: Transplantation endocrinic; progressos, **New York State J. Med.** 81: 1613 (Octobre) 1981.

Le autotransplantation de fragmentos de glandula parathyroide human ha devenite un tractamento conventional in multe centros medic que face tractamentos chirurgic del hyperparathyroidism primari et tertiari. Le progressos del aspectos technic del preservation in vitro e del studios physiologic del cellulas del parathyroide human permite ora predicer le futuro del graffos e le evalutation del patiente ante del autograffo parathyroide. Le criterio pro selection del patientes pro autograffia del parathyroide es actualmente infra disveloppamento. Le information experimental demonstrante le reestablimento del homeostasis del glucosa depost le transplantation del insulas (de Langerhans) in animals ha stimulate le investigation del insulas human, su preservation e le auto e le allograffos (transplantation) in varie centros. Le successo del transplantation del insulas es totavia incomplete e relationate al minus in parte con le difficultate technic pro le insulation e preservation del cellulas ante le transplantation. Al presente, le transplantation del insulas human persiste como un procedimento experimental que offere un importante potential per le tractamento del patientes diabetic durante le annos proxime.

Faden, H.: Agentes etiologic in le meningitis del etate temprane, **New York State J. Med.** 81: 1618 (Octobre) 1981.

Le variationes del causas bacterian del meningitis durante le annos pasate ha conducite al uso de differente tractamentos empiric con antibioticos. Un revision de 248

continued on page 1644

Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms o
anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated wit
stress of everyday life usually does not require treatment with an anxiolytic.
Effectiveness in long-term use, i e., more than 4 months, has not been assessed by system
atic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS
acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished to
erance for alcohol and other CNS depressants.
Physical and Psychological Dependence: Withdrawal symptoms like those noted with barb
turates and alcohol have occurred following abrupt discontinuance of benzodiazepine
(including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addic
tion-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillanc
when on benzodiazepines because of their predisposition to habituation and dependenc
Withdrawal symptoms have also been reported following abrupt discontinuance of benzod
azepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.
For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid ove
sedation. Terminate dosage gradually since abrupt withdrawal of any antianxiety agent ma
result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia ar
occasional convulsions. Observe usual precautions with impaired renal or hepatic functio
Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepa
has not been shown of significant benefit in treating gastrointestinal or cardiovascular comp
nent Esophageal dilation occurred in rats treated with lorazepam for more than 1 year
6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeu
dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 mont
of first observation. Clinical significance is unknown; but use of lorazepam for prolong
periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G
disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have h
elevations of LDH. As with other benzodiazepines periodic blood counts and liver function te
are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depress
effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged
rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabb
Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschi
malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship
dosage. Although all these anomalies were not present in the concurrent control group, th
have been reported to occur randomly in historical controls. At 40mg/kg and higher, there
evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lo
doses. Clinical significance of these findings is not known. However, increased risk of conge
tal malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam
meprobamate) during first trimester of pregnancy has been suggested in several studi
Because use of these drugs is rarely a matter of urgency, use of lorazepam during this per
should almost always be avoided Possibility that a woman of child-bearing potential may
pregnant at institution of therapy should be considered. Advise patients if they become pr
nant to communicate with their physician about desirability of discontinuing the drug.
humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam an
glucuronide.

NURSING MOTHERS. It is not known if oral lorazepam is excreted in human milk like ot
benzodiazepines. As a general rule, nursing should not be undertaken while on a drug si
many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and gener
disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxi
patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.
weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression,
sea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms,
function disturbance, various gastrointestinal symptoms and autonomic manifestations.
dence of sedation and unsteadiness increased with age. Small decreases in blood pres
have been noted but are not clinically significant, probably being related to relief of anxiety.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents
have been taken. Manifestations of overdosage include somnolence, confusion and co
Induce vomiting and/or undertake gastric lavage followed by general supportive care, mon
ing vital signs and close observation. Hypotension, though unlikely, usually may be contr
with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

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for (lorazepam)
Anxiety

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gradually when needed, giving higher evening dose before increas
daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dos
may vary from 1 to 10mg/day in divided doses. For elderly or de
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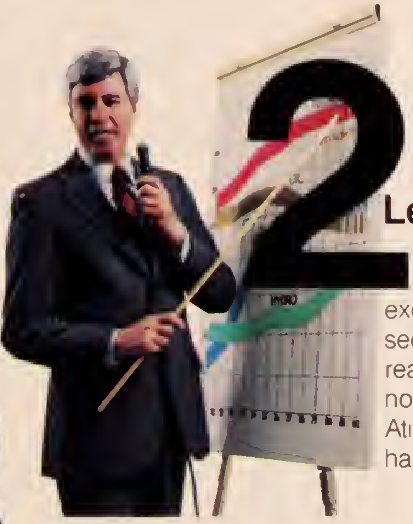

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Ativan® is metabolized in one simple step to an inactive glucuronide; its absorption and excretion are not significantly altered by cirrhosis or hepatitis. By contrast, the metabolism of diazepam and chlordiazepoxide has been reported to be significantly altered in patients with liver dysfunction.

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[*] Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic.

[†] All benzodiazepines, however, produce additive effects when given with CNS depressants, such as barbiturates or alcohol.

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AMA publishes directory of continuing study courses

Some 8,128 continuing medical education courses under 49 different subject headings are contained in the 27th annual list published by the American Medical Association.

The list is compiled as a service to physicians. Physicians can consult the list and find courses which meet their educational needs anywhere in the country and plan their individual programs of educational activities accordingly.

The annual list of courses appears as a special edition of the Journal of the American Medical Association August 4.

Formally organized CME (Continuing Medical Education) has gained wide acceptance among American physicians in the past two decades. The Accreditation Council for Continuing Medical Education, of which the AMA is one of the sponsors, has accredited over 2,300 institutions and organizations offering programs of CME.

The AMA strongly encourages every physician to participate in CME. The annual list of CME courses is but one of the AMA's activities which promote voluntary participation in CME. The AMA was the forerunner in CME accreditation. The AMA also established the PRA (Physician's Recognition Award Program) in 1968, which recognizes physicians' CME accomplishments in various categories of CME. In the past 12 months 37,863 PRA certificates were awarded, bringing the total of physicians earning the award to 103,342.

Requests for copies of the course list may be directed to the AMA Department of Continuing Medical Evaluation, 535 N. Dearborn St., Chicago, IL. 60610.

The directory was compiled by the staff of the AMA's Department of Continuing Medical Evaluation, Michael I. Gannon, Ph.D., acting director; Charlotte Hartman, course list coordinator, and the Department of Physicians Credentials and Qualifications, Marvin E. Johnson, M.D., director.

City death rate declines

An average of five fewer people died each day in New York City during the first half of 1981 compared with the same period last year, City Health Commissioner Reinaldo A. Ferrer, M.D., reported on August 4.

There were 37,858 deaths reported, down 924 from 1980's half year total. The death rate dropped to 10 per 1,000 population from 10.2 during this period.

The most frequent causes of these deaths were cardiovascular-renal failures, cancer, and influenza, including pneumonia.

"It is always difficult to determine the reasons for statistical fluctuations in the death rate," Commissioner Ferrer said. "We believe this year's mild winter, combined with the severe cold spells of 1980 which accounted for a sizable number of fatalities, may be an explanation for the lowered death rate thus far this year."

The infant mortality rate over this same period—16.6 per 1,000 births—declined by one percent from 1980's rate. There were 870 infant deaths during the first six-month period of 1981, down by 8 deaths from the previous year.

Commissioner Ferrer attributed the improved infant mortality rate to the availability of improved obstetric services and public health programs, and the high standards set by the Health Department's Advisory Committee on Obstetrics and Neonatology for all hospitals in New York City.

The Health Department also released the number of live births for the first half of 1981, 52,318 or 13.8 per 1,000 population. There were 100 fewer births during this same period in 1980.

Material for inclusion in the medical news section must be received eight weeks prior to publication date.

New clinical efficacy recommendations adopted by ACP

The American College of Physicians' Board of Regents has approved two new CEAP (Clinical Efficacy Assessment Program) recommendations. They are:

1. *Human tumor cell drug sensitivity assay* in the treatment of solid tumors should be considered an investigational, therapeutic aid at this time. Correlation of stem-cell sensitivity assay with clinical response is extremely limited and has not been validated sufficiently. Additional data and evaluation are required before the efficacy of this test can be established.
2. *24-Hour sphygmomanometry* currently does not have routine value in most settings. It may have some value in certain clinical settings, such as evaluation of episodic symptoms or in research efforts involving the duration of antihypertension medication effect. However, before it can be considered efficacious, the instrumentation currently available needs to be standardized, normal values established in each laboratory in which it is used, and more investigative work needs to be undertaken to define in what clinical settings it is efficacious.

The CEAP study evaluates the clinical efficacy of nonsurgical laboratory tests and procedures to determine outmoded tests and encourage newer, more accurate replacements for them. The CEAP team expects better, more efficient health care, and significant dollar savings to result from the medical community's use of their findings.

The three-year project, funded by a $650,412 grant from The John A. Hartford Foundation, is headed by J. Sanford Schwartz, M.D., assistant professor of medicine at the University of Pennsylvania School of Medicine.

The private, New York City-located Foundation makes grants to stimulate health care payment system reforms

continued on page 1699

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Editorial

Herostratos

In the year 356 B.C. there lived in the town of Ephesus in Greece an ordinary man called Herostratos. He was not known as an athlete, a politician, nor as a philosopher. He could not understand why no one paid attention to him; because he was of the opinion, and sure, that he was something special and important.

To show the world that he was most illustrious, a real celebrity, he decided to do something unusual. In his native town of Ephesus was the famous temple to the goddess Artemis (known in Rome as Diana). People from all over Greece went on a pilgrimage to pay homage to the goddess in her temple.

At night, when no one watched, Herostratos put oil in the temple and started a fire. The temple burned down completely, and when that happened, Herostratos proudly confessed to the arson and crime.

He succeeded in his intention to become famous. Since his crime 2,337 years have passed. The name Herostratos has remained in the history of Greece and his deed is called herostratic.

The paranoic intention to become famous by any available means, usually by violence, has remained to our times as a mental disturbance. We have only to see in recent weeks the attempts: Hinckley who tried to kill President Reagan; Agca who attempted to assassinate the Pope; and Chapman who killed the singer Lennon. It was not so long ago that we saw the assassination of President Kennedy by Oswald; his brother Robert Kennedy by Sirhan; and the Reverend Martin Luther King, Jr., by Ray; and all the many more similar cases.

In all these cases police looked for a conspiracy, for organizations that wanted to kill the world famous people for their political or otherwise fanatical purposes. In several cases such a conspiracy was, or is, being found. The remarkable fact is that in all these cases the culprit, the assassin, is easily found, and not infrequently the delinquent surrenders to the authorities and confesses his crime.

It is clear that in several such cases an organization has given the assailant money, passports, and weapons in order to commit the crime. We saw it in the case of Ray who killed Martin Luther King, and now in Agca who tried to murder the Pope, even though we do not know which organization supplied the means for the crimes. But, even then, they first have to find a person who is willing to be the assassin. In most cases, the murderer or would-be murderer declared this was his personal decision to commit the crime.

Whether yes or no, we come to a psychological cause of the murderous attacks. Namely, all these criminals suffer from an inferiority-superiority complex. Inferior because they believe that the world does not recognize their superior personality, and they want to show everyone by their crime how important they are. They all suffer from the same complex as Herostratos, and that syndrome of their mental disturbance should be called *"The Herostratos Syndrome."*

Considering that such a mental disturbance is so widespread, found all over the world, and in view of the fact that we live now in a period of violence in all countries; unfortunately, we have to expect a recurrence of such violent acts against celebrities.

We have no cure for that syndrome because it occurs primarily in insignificant persons who suffer from megalomania and who want to show the world how important they are.

Addendum

After having sent "Herostratos" for publication, we read in the papers that 6 pistol blanks were fired at Queen Elizabeth II as she rode to a military display in London. A 17-year-old youngster stepped from the crowd and fired at the Queen.

If the boy had had the intention of assassinating the Queen, he could have accomplish it easily by firing real bullets which would have killed her instantly. However, thank God, his intention was to become famous, possibly recorded in the history of England, and for that purpose the attempt was as good as a real assassination. As usual in such herostratic cases, the youth did not try to escape and did not resist arrest.

As I said in my essay, considering the publicity surrounding any assassination attempt, we have plenty of people all over the world who want to become famous in this way or, rather, infamous.

We have to expect to see many cases of such mental aberration which I call the "Herostratic Syndrome."

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Copper and Ceruloplasmin

Serial studies in viral and alcoholic liver disease*

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Twenty-three patients with liver disease—4 acute viral hepatitis, 3 with chronic active hepatitis, 10 acute alcoholics, and 6 chronic alcoholics—had serial determinations of serum copper and ceruloplasmin, and graphic and calculated determinations of nonceruloplasmin copper and liver-function tests. Variations in copper and ceruloplasmin were often independent of results of liver tests. In three of four patients with viral hepatitis, both copper and ceruloplasmin were elevated, returning to normal by the third week. In acute alcoholic disease, low initial values rose to normal or became elevated with convalescence. Persistent elevation of copper and ceruloplasmin was characteristic of chronic disease. Elevated nonceruloplasmin copper, best demonstrated in graphic analysis, was found in all groups, even when both copper and ceruloplasmin were in the "normal" range. Disproportionate elevation of copper over ceruloplasmin suggests the presence of nonceruloplasmin copper which may be bound to other serum components and which disappears with convalescence.

The role of copper in the pathogenesis of any disease remains uncertain. Known to be a biologically essential element, it also may produce toxic effects. Abnormal levels of serum copper and ceruloplasmin have been reported in many diseases, particularly in diseases of the liver.[1–5] The purpose of this study is to present data obtained from serial determinations of serum copper and ceruloplasmin in hospitalized patients with diagnoses of acute viral hepatitis, chronic active hepatitis, acute alcoholic liver disease, and chronic alcoholic liver disease. The study is not intended to further define or add to the differential diagnosis of these diseases, but rather to record the changes in levels of copper and ceruloplasmin in daily sequence as the disease evolves.

Some investigators have held that the damaged liver cell releases copper and ceruloplasmin into the bloodstream, and hence levels would be correlated with abnormal findings of liver function tests. We have not found a consistent correlation between serum copper and ceruloplasmin and the degree of abnormality of liver function tests. Instead, a variety of changes in serum copper and ceruloplasmin values may occur at different stages of an illness. Both values may be normal when liver disease is evident, both may be elevated, or one normal and the other elevated. It is also apparent that there is a wider fluctuation in the ceruloplasmin than in serum copper, which in turn suggests that there is fluctuation in the "nonceruloplasmin" copper. We have used graphic techniques and calculated values to reflect the nonceruloplasmin copper—the copper that is the difference between the total serum copper and the ceruloplasmin copper. In this manner, we have observed that some patients may have appreciably elevated nonceruloplasmin copper at certain points during the illness. This may occur even when both the serum copper and ceruloplasmin fall into what has been called the "normal range."

Materials

Serum copper and ceruloplasmin levels were de-

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* These studies were carried out in part in the Clinical Research Center, Strong Memorial Hospital, and were supported by United States Public Health Service Reseach Grant 000RR44 from the Division of Research Facilities and Resources, National Institutes of Health. Additional support has been received by grants from the Rochester Female Charitable Society, Mr. and Mrs. Leon Sage, Mrs. Lena S. Steele, Mr. Erwin W. Wilson, Christopher D. Smithers Foundation, Inc., and Ms. Margaret Settle and family.

termined in 51 healthy, normal individuals, primarily hospital personnel. Normal values were: serum copper 114 ± 19.8 micrograms per deciliter, ceruloplasmin 439 ± 88 units per deciliter, and calculated nonceruloplasmin copper 39 ± 10 micrograms per deciliter. Twenty-three patients with active liver disease were studied during a total of 25 hospital admissions, 22 in the F. F. Thompson Hospital, and 3 in the CRC (Clinical Research Center) at the Strong Memorial Hospital.

Studies were begun on the first hospital day in 6 patients; on the second day in 11 patients; on the third day in 4 patients; and on the fourth hospital day in 2 patients. Twenty patients were visibly jaundiced. All 23 had elevated SGOT (serum glutamic oxaloacetic transaminase) and serum AP (alkaline phosphatase) levels. Separation into groups was based on history, physical findings, and supporting laboratory data. These groups are divided as follows.

Four patients, two male and two female, had AVH (acute viral hepatitis); two had positive HB_sAg (hepatitis B surface antigen) determinations; in two the determination was not done. No liver biopsies were obtained in this group.

Three patients, two male and one female, had CAH (chronic active hepatitis). Diagnosis was based on a history of illness of at least one year's duration, persistent abnormal findings of liver function tests, and abnormal antimitochondrial, antinuclear, or antismooth-muscle antibody determinations. All three of these patients had negative HB_sAg determinations. Each had one or more biopsies.

Ten patients, eight male and two female, had AALD (acute alcoholic liver disease). One patient was observed during two admissions. The diagnosis was based on a history of prolonged and excessive alcoholic intake resulting in an acute illness requiring hospitalization. Three liver biopsies were done in this group. These patients showed early improvement and required a hospital stay of less than 20 days. A majority of these patients met the usually accepted criteria for acute alcoholic hepatitis.

Six patients, five female and one male, with a total of seven hospital admissions, had CALD (chronic alcoholic liver disease), arbitrarily defined as the persistence of abnormal liver function test findings for a period greater than 30 days. These patients were severely ill in terms of physical findings and degree of abnormality of liver function test findings. Two patients in this group had liver biopsies, both of which showed cirrhosis.

Nonedematous patients admitted to F. F. Thompson Hospital were placed on an ad libitum diet. Patients with fluid retention were restricted to an intake of 0.5 Gm. sodium daily.

The patients studied in the CRC at Strong Memorial Hospital had established chronic liver disease and received a constant diet calculated to contain, 1,800 calories and 0.33 mg. of copper per day.

Drugs used during the hospitalizations in different patients included flurazepam hydrochloride, chlorpromazine, diazepam, diphenylhydantoin, phenytoin sodium, imipramine pamoate, ethchlorvynol, paraldehyde, ampicillin, sulfisoxazole, pentobarbital sodium, acetaminophen, oxycodone hydrochloride, quinidine sulfate, and multivitamin capsules without supplemental trace metals.

The effect on copper metabolism of most of the drugs received by our patients is unknown. Azima and Richman[6] reported an elevation of plasma copper in 12 of 25 psychiatric patients who were given chlorpromazine but did not measure ceruloplasmin. It is doubtful that chlorpromazine had any significant effect on the one patient (number 5) who received it in our series, since the changes seen in this patient's serum were similar to those seen in the other nine acute alcoholic patients studied (Table III).

All patients were hospitalized for the length of time considered to be optimal for their needs, except for one patient in the chronic alcoholic group who requested discharge after 35 days.

Methods

Copper analysis. Serum copper was determined by atomic absorption according to a modification of the method of Piper and Higgins.[7] Analysis was performed on an atomic absorption spectrophotometer (I.L. 251).* All glassware was acid-washed and rinsed with deionized water.

Ceruloplasmin. Ceruloplasmin was determined by a method described by Henry et al.[8] The activity of the ceruloplasmin is measured in units. A unit is arbitrarily defined as an increase of 0.001 in absorbance at 530 nm. in 30 min. under the conditions of the test. Our analyses were done at 37°C. Units were converted to milligrams per deciliter using a conversion factor of 0.06.[9] Ceruloplasmin levels were determined on a spectrophotometer (Bausch and Lomb 88).

Results of analyses using the oxidase method employed in these studies were compared with determinations in 103 patient samples using the immunochemistry system (Beckman) and the immunoplate III system (Hyland).†

Linear regression analysis between the results using these systems and our oxidase determinations showed no significant difference in the figures obtained. For the immunochemistry system and the oxidase technique the correlation coefficient was 0.93; for the immunoplate system and the oxidase method the correlation coefficient was 0.89. Thus the oxidase procedure yielded results comparable to those obtained with the other techniques.

Nonceruloplasmin copper. Calculation for

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* Instrumentation Laboratory, Inc., Wilmington, Mass. 01887.

† Performed at Beckman Instruments, Inc., Clinical Instruments Division, under the direction of James R. Baldwin, Ph.D.

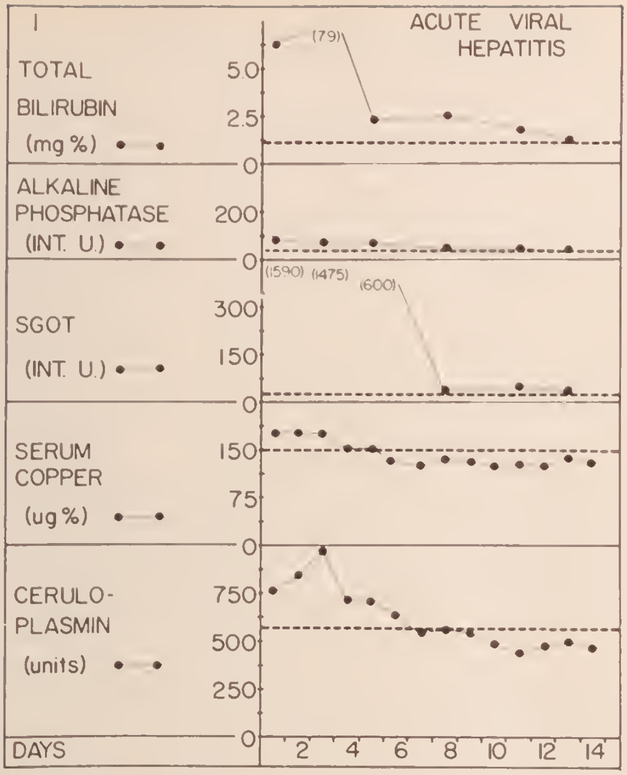

FIGURE 1. A 49-year-old male with AVH showing relationship of SB, AP, and SGOT to serum copper and ceruloplasmin. Initial elevation of all parameters return toward normal by eighth hospital day. Broken horizontal lines represent upper limit of normal for each parameter in all figures.

nonceruloplasmin copper was made from the following formula:

Nonceruloplasmin copper = total serum copper (mcg./dl.) − ceruloplasmin copper (mcg./dl).

Ceruloplasmin copper (mcg./dl.) =

$$\frac{\text{ceruloplasmin (units)} \times 0.06 \times 6 \times 63.4 \times 1{,}000}{134{,}000}$$

$$= 0.1703 \times \text{ceruloplasmin units}$$

Where: 0.06 = conversion factor from units to milligrams per deciliter[9]
134,000 = molecular weight ceruloplasmin in daltons[10]
6 = number of atoms of copper in ceruloplasmin molecule
63.4 = atomic weight of copper
× 1,000 = conversion milligrams to micrograms per deciliter

It should be noted that in the older literature ceruloplasmin was considered to contain eight copper atoms and have a molecular weight of 160,000 daltons. Substituting these numbers in the equation would give a conversion factor of 0.1902 for converting ceruloplasmin in micrograms of ceruloplasmin copper as compared with a conversion factor of 0.1703 in the preceding formula. This would be a partial explanation of the fact that our calculated levels of nonceruloplasmin copper are higher than values appearing in earlier reports.

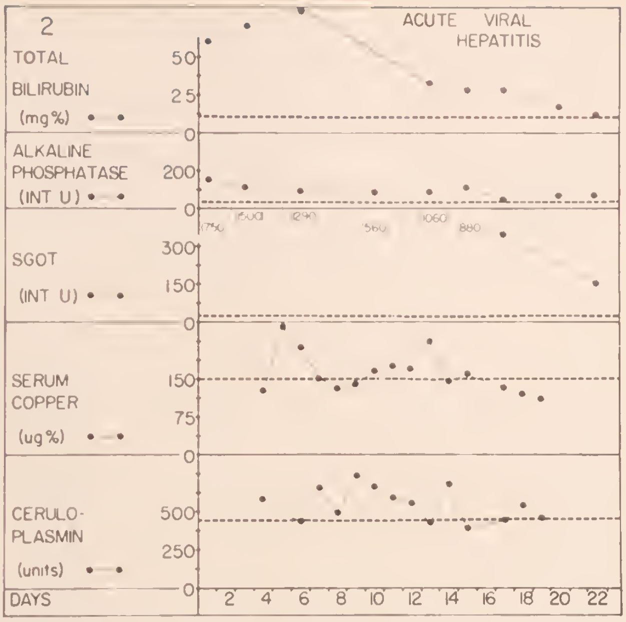

FIGURE 2. A 29-year-old male with HB_sAG-positive AVH. Note secondary rise in SGOT at day 13. The serum copper and ceruloplasmin levels are frequently divergent, suggesting fluctuation in nonceruloplasmin copper level.

This study was reviewed and approved by the committee on human investigations of the University of Rochester School of Medicine and Dentistry. Informed consent for procedures involved was obtained from all patients.

Results

Acute viral hepatitis. The relationship of the serum copper and ceruloplasmin levels to the SGOT, AP, and total SB (serum bilirubin) in three of the four patients (patients 1 through 4) with AVH is shown in Figures 1, 2, and 3.

In patient 1, the SB, SGOT, and AP were initially elevated and fell toward normal during the second week of study (Fig. 1). The serum copper and ceruloplasmin levels were also elevated during the early phase of the illness and showed a return to normal levels corresponding with the return to normal of the SGOT and SB. Patient 3 (not shown) had a similar recovery pattern.

In contrast to patient 1, patient 2 had a secondary rise in the SGOT on the thirteenth study day (Fig. 2). Wide fluctuations occurred in the serum copper which, when compared with the corresponding serum ceruloplasmin levels, suggested that the nonceruloplasmin copper was, on occasion, markedly elevated. This is illustrated in Table I.

On days 6 and 13 the serum copper was in excess of 200 micrograms per deciliter, while the ceruloplasmin was less than 450 units. In contrast, on days four and nine the serum copper was less than 140 micrograms per deciliter and the ceruloplasmin was

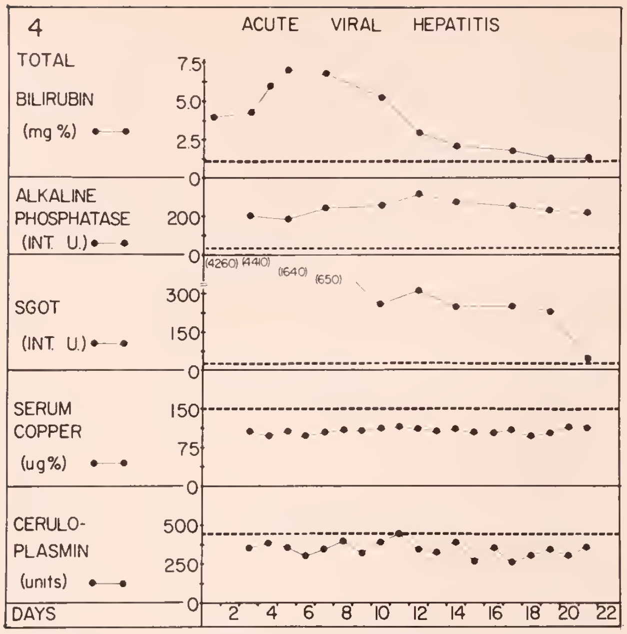

FIGURE 3. A 48-year-old female with AVH whose serum copper and ceruloplasmin values are normal throughout course despite very high initial levels of SGOT.

TABLE I. Patient 2, Acute viral hepatitis: comparison of serum copper, serum ceruloplasmin, and nonceruloplasmin copper levels on four different study days

Study Day	Serum Copper mcg./dl.	Serum Ceruloplasmin units/dl.	Nonceruloplasmin Copper mcg./dl.*
4	129	575	20
6	210	435	127
9	139	740	−2
13	219	425	138

* Calculated.

in excess of 550 units. Thus, calculated values for nonceruloplasmin copper for days 6 and 13 were in excess of 100 micrograms per deciliter, while on days 4 and 9 the calculated values were 30 micrograms or less. Comparable fluctuations were not observed in the other three patients.

Patient 4 (Fig. 3) registered the highest SGOT of any of the four patients with a peak at 4,410 I.U. However, in spite of the very active hepatocellular destruction, the serum copper remained within normal limits in a narrow range of 99 to 114 micrograms per deciliter and the serum ceruloplasmin fluctuated from 258 to 438 units per deciliter, never exceeding the upper limits of normal.

Chronic active hepatitis. Patients 5, 6, and 7 had CAH. Each of these patients underwent prolonged study in the CRC. Table II is a compilation of the mean and standard deviation for the SGOT, serum copper, and ceruloplasmin for these three patients. In general, the abnormal values in these patients were sustained. Patient 5 had normal serum copper and elevated ceruloplasmin. Patient 6 had a high normal serum copper and an elevated ceruloplasmin. Patient 7 had an elevated serum copper and elevated ceruloplasmin, and Figure 4 shows the changing relationship between this patient's SGOT, AP, and her serum copper and ceruloplasmin, all values becoming more abnormal as the study period progressed.

Acute alcoholic liver disease. Patients 8 through 17 had AALD. The relationships of the changes in serum copper and ceruloplasmin to SB, SGOT, and AP which occurred in three representative patients in this group are shown in Figures 5, 6, and 7.

In patient 8 the SB, SGOT, and AP were initially elevated, returning toward normal by the fifteenth study day (Fig. 5). A remarkable finding was that the ceruloplasmin increased progressively while the serum copper remained almost unchanged and the SGOT and AP returned to nearly normal. Ceruloplasmin thus appeared to rise with recovery.

Patient 15 showed initial elevations in SB and SGOT, which returned toward normal by the fifteenth study day (Fig. 6). The serum copper rose from an initial value below 100 micrograms per deciliter to levels just above the upper limits of normal with the highest value being 166 micrograms per deciliter. The serum ceruloplasmin was elevated in comparison with the serum copper level for each of the first six days and from the eighth study day the values of serum copper and ceruloplasmin were nearly parallel.

Patient 13 demonstrated a fall in SB and SGOT toward normal by the fifteenth study day (Fig. 7). His serum copper level never exceeded 110 micrograms per deciliter and remained relatively unchanged during the last nine study days, while the serum ceruloplasmin fluctuated throughout the study period.

Table III is a summary of the SGOT, copper, and ceruloplasmin analyses at three-day intervals in the 10 patients with acute alcoholic liver disease. The SGOT was initially elevated in all 10 patients and decreased toward normal by the second week of hospitalization. In contrast, the serum copper in

TABLE II. Summary of mean plus or minus standard deviation of values of serum copper, ceruloplasmin, and SGOT levels in patients with chronic active hepatitis

Patient Number	SGOT (units) Number of Determinations	SGOT (units) Mean	Serum Copper Mean (mcg./dl.)	Serum Ceruloplasmin Mean (units)
5	13	147 ± 11	124 ± 7	611 ± 54
6	7	74 ± 4	157 ± 6	662 ± 38
7	13	135 ± 25	180 ± 17	884 ± 133

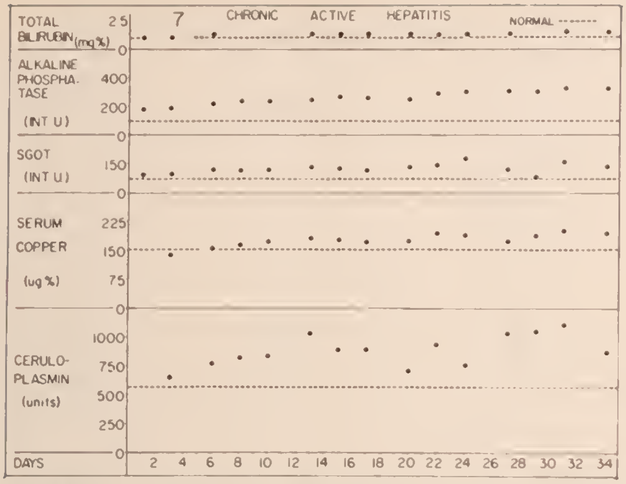

FIGURE 4. A 60-year-old female with CAH on low copper diet. Levels of serum AP, SGOT, serum copper, and ceruloplasmin were elevated throughout and became more abnormal as observation period progressed. Note ceruloplasmin fluctuated more than serum copper.

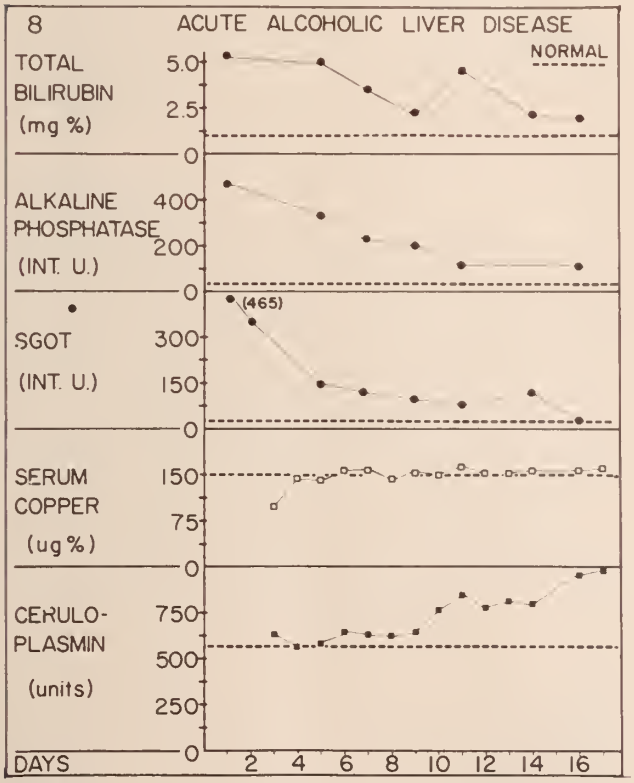

FIGURE 5. A 43-year-old female with AALD showed striking rise in ceruloplasmin as her liver functions returned toward normal, while her serum copper remained relatively constant.

each patient increased appreciably during the observation period. The lowest initial level was 64 micrograms and the highest was 137 micrograms per deciliter. The range of individual increase varied from 15 to 76 micrograms per deciliter. The mean increase was 40.7 ± 21.5 micrograms per deciliter.

The ceruloplasmin also increased in all acute al-

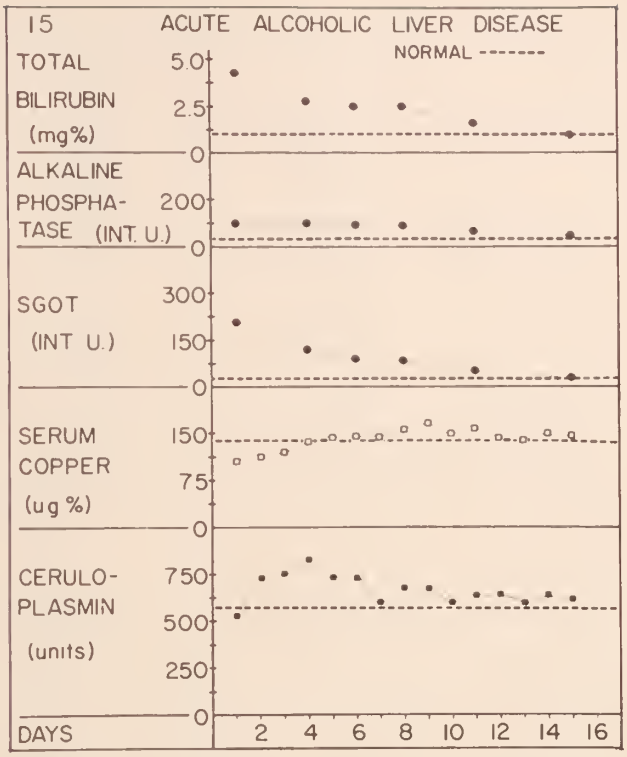

FIGURE 6. A 55-year-old male with AALD whose ceruloplasmin was initially elevated in the presence of normal serum copper. After day 8 the serum copper and ceruloplasmin ran a parallel course as his liver function tests returned to normal.

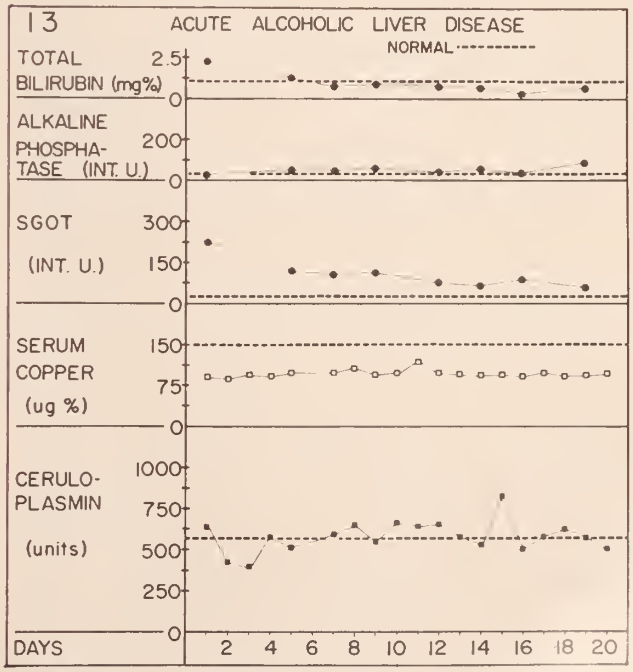

FIGURE 7. A 45-year-old male with AALD shows throughout study period a fluctuation of ceruloplasmin in presence of stable normal serum copper level.

coholic patients with the lowest initial ceruloplasmin value being 194 and the highest 590. The increase

TABLE III. SGOT Compared to Copper/Ceruloplasmin levels at three-day intervals in acute alcoholic patients

Patient Number	Period 1 SGOT	Period 1 Copper/ Cerulo.	Period 2 SGOT	Period 2 Copper/ Cerulo.	Period 3 SGOT	Period 3 Copper/ Cerulo.	Period 4 SGOT	Period 4 Copper/ Cerulo.	Period 5 SGOT	Period 5 Copper/ Cerulo.
8	145	132/590	99	156/650	118	162/800	...	...	...	...
	425	137/570	108	163/590	160	180/760	...	...	...	...
9	114	116/570	83	128/510	71	137/614	...	...	...	...
10	360	96/295	122	156/643	134	172/795	...	...	...	...
11	299	119/540	67	131/570	79	152/695	42	158/645	92	172/71
12	161	64/194	218	138/512	33	138/628	...	...	...	...
13	73	112/477	34	139/541	...	...	...	...	...	...
14	225	86/421	117	102/510	111	100/557	78	102/652	87	98/501
15	204	107/526	119	134/826	82	160/673	52	158/633	35	146/622
16	146	91/313	45	106/334	31	93/386	39	103/435	...	...
17	67	86/378	52	116/424	39	121/513	39	118/499	42	126/568

* Patient 8 had two admissions, shown separately here.

TABLE IV. Summary of SGOT, serum copper, and serum ceruloplasmin data in six patients with chronic alcoholic liver disease

Patient Number	Number of Determinations	SGOT I.U. Mean ±S.D.	Number of Determinations	Serum Copper mcg./dl. Mean ± S.D.	Number of Determinations	Serum Cerulo. Units/dl. Mean ± S.D.
18 (A)*	12	263 ± 74	19	146 ± 16	19	613 ± 89
(B)	7	215 ± 38	13	184 ± 18	13	716 ± 53
19	16	186 ± 64	31	200 ± 15	29	711 ± 89
20	30	104 ± 57	73	95 ± 6	73	595 ± 103
21	16	86 ± 27	33	142 ± 11	33	467 ± 47
22	24	60 ± 17	43	138 ± 11	43	581 ± 66
23	9	46 ± 12	49	149 ± 15	49	640 ± 100

* Data presented for two separate admissions.

ranged from 64 to 500 units and the mean increase was 229 ± 135 units. The ceruloplasmin frequently became elevated without a concomitant increase in the serum copper as the patient improved clinically. No consistent correlation was found between the SGOT and the serum copper or ceruloplasmin changes.

Chronic alcoholic liver disease. Patients 18 through 23 had CALD. The mean (plus or minus standard deviation) values for the SGOT, serum copper, and ceruloplasmin for this group of patients is presented in Table IV. No consistent correlation was observed between the level of SGOT and either the serum copper or the ceruloplasmin values. Three of the six patients (18, 19, and 23) were found to have both elevated copper and elevated ceruloplasmin. In contrast, however, the total serum copper and ceruloplasmin levels in patient 21 were all within the normal range. Despite this, the non-ceruloplasmin copper in this patient was frequently elevated. These data will be considered in more detail under the discussion of the use of scatter diagrams.

A graphic representation of the relationship of the SB, AP, SGOT, serum copper, and serum ceruloplasmin for patient 20 is shown in Figure 8A and 8B.

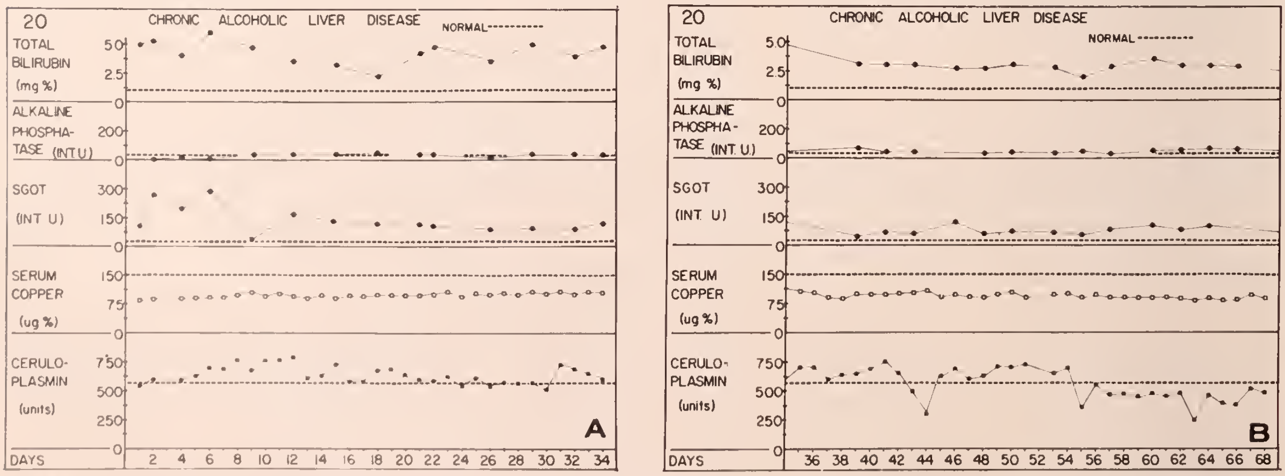

FIGURE 8. (A,B) A 59-year-old male with CALD shows remarkably unvarying serum copper along with varying but persistently elevated ceruloplasmin level until day 54. Ceruloplasmin then returned to normal for remaining 14 days of study.

TABLE V. Serum copper and ceruloplasmin levels (mean and standard deviations) recorded at seven-day intervals for the four study groups[*]

Substance	Week of Study	Acute Hepatitis	Chronic Hepatitis	Acute Alcohol	Chronic Alcohol
	1	[4][†]	[3]	[13]	[7]
Copper		147 ± 30	157 ± 40	108 ± 24	139 ± 31
Ceruloplasmin		588 ± 177	689 ± 121	483 ± 164	608 ± 64
	2	[4]	[3]	[13]	[7]
Copper		147 ± 30	153 ± 24	139 ± 24	153 ± 39
Ceruloplasmin		547 ± 114	709 ± 120	613 ± 116	668 ± 157
	3	[3]	[3]	[7]	[7]
Copper		117 ± 18	150 ± 43	133 ± 29	163 ± 43
Ceruloplasmin		439 ± 125	639 ± 164	597 ± 178	713 ± 160
	4	[0]	[3]	[0]	[6]
Copper		. . .	164 ± 39	. . .	152 ± 31
Ceruloplasmin		. . .	817 ± 264	. . .	628 ± 131
	5	[0]	[2]	[0]	[6]
Copper		. . .	179 ± 33	. . .	151 ± 25
Ceruloplasmin		. . .	639 ± 14	. . .	616 ± 88

[*] Determinations done on first day of each period.

[†] [ ] Number of patients.

The SB remained elevated throughout the 68-day study period, being lowest in the last 20 days. The SGOT was highest during the first 14 study days and during the last half of the study fell to between 45 and 100 units per deciliter. The serum copper remained strikingly constant at a level of 95 ± 6 micrograms per deciliter. The ceruloplasmin was elevated until day 54 when it abruptly returned to normal levels and remained normal. The ceruloplasmin was highest when the SGOT began to decline.

The calculated ceruloplasmin copper level in this patient, and unique to this patient, exceeded the total serum copper in 43 of 73 determinations. This is unexplained, but no procedural change or analytic error was detected during this period. This finding will be considered in the Comment section

Comparison of copper and ceruloplasmin in illness groups. Table V is a compilation of the mean (plus or minus the standard deviation) of serum copper and ceruloplasmin levels for each of the illness groups showing the levels found at seven-day intervals. The number of determinations for each week are recorded and the decline in the number of determinations in succeeding weeks is due to discharge of patients from the hospital.

Certain trends were evident. In the majority of patients with acute viral hepatitis, the serum copper and ceruloplasmin were initially elevated and returned to normal by the third week of observation. For acute alcoholic liver disease, a low normal serum copper and ceruloplasmin level on admission to the hospital was common and as recovery progressed, the ceruloplasmin often rose to above normal and the serum copper increased toward high normal values. The chronic hepatitis and chronic alcoholic liver disease patients were in general similar to each other, and in both groups, either the serum copper and/or ceruloplasmin remained elevated as the disease continued to be clinically active.

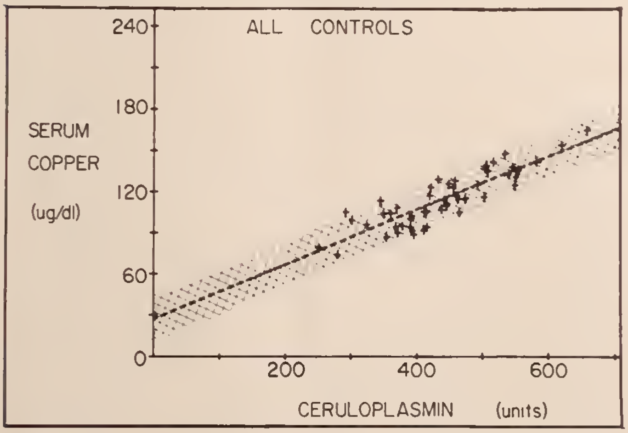

FIGURE 9. Scatter diagram plot of serum copper versus ceruloplasmin for 51 healthy volunteers. Hatched area includes all healthy control subjects and will be used for comparing individual patients against this normal range.

Statistical analyses

The serum copper value in 51 normal individuals was plotted against the serum ceruloplasmin utilizing computer techniques (Fig. 9). The plot yields a correlation coefficient (r) of 0.879. The values for normal individuals fall within the hatched area and indicate the normal relationship of copper and ceruloplasmin. The dotted regression line and hatched-in area have been subsequently used for comparison with similar plots for each patient. If the copper/ceruloplasmin plot for a given sample was above the hatched lines, then the nonceruloplasmin copper fraction of that sample has been interpreted as being elevated. If the copper/ceruloplasmin plot appeared below the hatched lines, then the serum copper is presumed to be bound almost entirely by ceruloplasmin. Examples of patients' copper/ceruloplasmin plots are shown in Figures 10, 11, and 12. These plots are referred to as scatter diagrams. Patient 4 (AVH) had normal serum copper and a fluctuating low-normal ceruloplasmin value (Fig. 10).

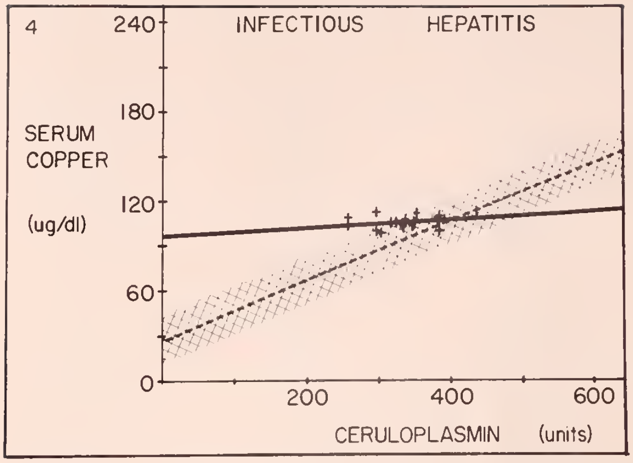

FIGURE 10. Scatter diagram for patient with AVH with copper and ceruloplasmin determinations which separately were normal. When shown in this fashion it is apparent that slope and copper intercept differed from normal.

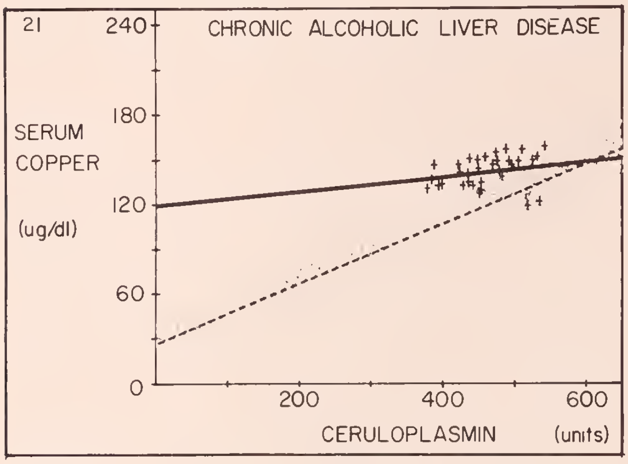

FIGURE 11. Scatter diagram for a patient with ACLD in which majority of copper values were above normal (hatched) area for corresponding ceruloplasmin values. This suggests an increase in nonceruloplasmin copper. It is noted that all copper and ceruloplasmin levels were separately within "normal" limits. Note difference in patient slope and copper intercept from normal (heavy black line).

A number of copper/ceruloplasmin plots in this patient were above the normal regression line and suggest an elevated nonceruloplasmin copper. This is more striking in patient 21 (CALD) whose serum copper and ceruloplasmin levels were normal, yet in whom the majority of copper/ceruloplasmin plots fall above the normal range and indicate the presence of an appreciable concentration of nonceruloplasmin copper (Fig. 11).

The scatter diagram for patient 20 (CALD), Figure 12, shows that the majority of the plotted values fell below the normal range suggesting that the serum copper was consistently less than would be expected in view of the ceruloplasmin values.

Similar analyses were employed to determine whether there was a relationship between the serum copper and SGOT; the ceruloplasmin and SGOT; serum copper and SB; and ceruloplasmin and SB. No consistent correlation was found in the analysis of these pairings.

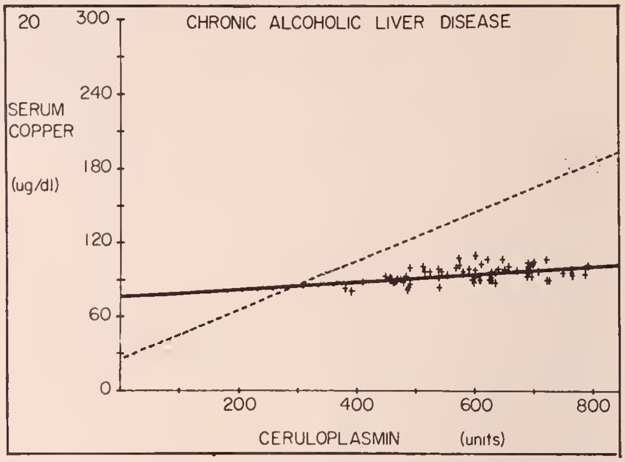

FIGURE 12. Scatter diagram for patient with ACLD in which most plots lie below hatched area and suggest elevated level of ceruloplasmin for serum copper value.

Comment

The serum copper and ceruloplasmin values obtained from 51 healthy volunteers are comparable with those reported in the literature.[11] These values remain relatively constant in health and become elevated in a variety of illnesses.[12] Previous studies indicate that 90 to 95 percent of the total serum copper in normals is bound to ceruloplasmin.[13–15] The scatter diagram analyses of serum copper versus ceruloplasmin, which we have carried out in our normal individuals, show a high degree of correlation ($r = 0.879$). This is compatible with the concept that serum copper is primarily bound by ceruloplasmin. In our studies of liver disease patients, however, there is digression between these values during the course of the illness. Fluctuations in ceruloplasmin levels were more striking and more frequent than were changes in the serum copper level. Furthermore, the ceruloplasmin was often elevated without elevation in serum copper, thus effectively decreasing the amount of nonceruloplasmin copper. This may be a result of increased synthesis of ceruloplasmin and conceivably serves as a mechanism to protect against increased "free" or nonceruloplasmin copper.

Serum copper which is not accounted for in the ceruloplasmin concentration may be referred to as the "direct-reacting fraction,"[16] "free" copper, or nonceruloplasmin copper and is considered to be ionic copper carried loosely bound to serum albumin or as amino acid complexes.[17] Increased values of nonceruloplasmin copper have been reported in Wilson's disease,[2,17] primary biliary cirrhosis,[18] Laennec's cirrhosis,[1] pellagra,[19] psoriasis,[20] and monoclonal immunoglobulinopathy.[21] It is this fraction that is considered potentially toxic and an abrupt elevation may be associated with the development of an hemolytic anemia.[22,23]

It has been noted that patient 21 with chronic alcoholic liver disease was seriously ill and that her serum copper and ceruloplasmin levels were normal throughout her course. Interpretation of her scattergram, however, suggested that the nonceruloplasmin copper level was elevated in 26 out of 34 determinations (Fig. 11). Since nonceruloplasmin copper has been considered to be injurious to various organs in Wilson's disease, it is possible that prolonged elevation of nonceruloplasmin copper may also be responsible for tissue injury in other types of liver disease.

In this regard it is of note that in acute alcoholic liver disease the serum copper and ceruloplasmin levels consistently rose while the SGOT fell. This may indicate improving ability of the liver to synthesize ceruloplasmin and to bind copper. Prior to hospitalization, acute injury by alcohol may have inhibited this synthesis or poor dietary intake of copper may have reduced the need for ceruloplasmin synthesis.

It has been observed that after oral or intravenous administration of a copper salt, there is a prompt increase in the levels of total and nonceruloplasmin copper, followed within hours by a decrease in the nonceruloplasmin copper and an increase in ceruloplasmin.[24,25] That the same sequence occurs when the nonceruloplasmin copper becomes elevated in patients with liver disease has not yet been demonstrated. Binding of the nonceruloplasmin copper to globulins other than ceruloplasmin has been found to occur.[26] Lewis and associates[21] have reported a patient who had a monoclonal immunoglobulin elevation with marked hypercupremia. On one occasion, the serum copper level was 1,740 micrograms per deciliter in the presence of only a modest elevation of ceruloplasmin. This indicated that the majority of the serum copper was in the nonceruloplasmin fraction and was evidently bound to an immunoglobulin. There was no evidence of toxicity from the very high nonceruloplasmin copper, thus suggesting a protective effect of the globulin binding.

Patient 20 (Figures 8 and 12) with chronic alcoholic liver disease presented a different situation in that the ceruloplasmin concentrations were high compared to serum copper. The calculated ceruloplasmin copper values thus frequently exceeded the level of total serum copper. We could not trace this unusual finding to analytic techniques. One possible explanation would be the presence of an oxidase in the serum in addition to ceruloplasmin, which would falsely elevate the ceruloplasmin value. Another explanation would be that the ceruloplasmin in this patient was structurally abnormal and contained less copper than the normal compound. Gubler et al.[1] also reported four instances in which the ceruloplasmin copper exceeded the total serum copper, but no explanation was offered.

It should be emphasized that the nonceruloplasmin copper has not been established as a cell poison except in the situation where a large dose of copper salt has been ingested in suicide attempts. The problem of toxicity is complicated by the relatively rapid clearing of nonceruloplasmin copper from the serum. Thus the level of nonceruloplasmin copper may return to normal before toxic effects become apparent. Because elevations in nonceruloplasmin copper may be transient, frequent sampling was done in our patients. It is evident that a toxic threshold needs to be determined, that is, the concentration at which nonceruloplasmin copper becomes harmful. Also, when an elevated nonceruloplasmin copper is found, the manner in which it is bound or transported needs to be determined.

Direct quantitative measurement of nonceruloplasmin copper is difficult. Gubler et al.[1] determined serum ceruloplasmin values by the use of rabbit antihuman ceruloplasmin serum and also determined nonceruloplasmin copper. Analysis of their data, however, shows that calculated nonceruloplasmin copper was higher than the directly analyzed nonceruloplasmin copper in each patient by from 7 to 20 micrograms per deciliter.

In the absence of the actual quantitative measurement of the nonceruloplasmin copper, the scatter diagram technique and calculated values we have used may be helpful in identifying abnormal situations. It is evident from our data that an appreciably elevated nonceruloplasmin copper was present at certain stages of illness in some patients.

These data indicate that in patients with liver disease there is wide variation in day-to-day values for not only serum copper and ceruloplasmin but for nonceruloplasmin copper as well. This variation in nonceruloplasmin copper may be best demonstrated by plotting of copper against ceruloplasmin and comparing the liver disease patients' values with the range found in normal patients. Using this technique the presence of high or low levels of nonceruloplasmin copper in the serum can be revealed even when either serum copper and ceruloplasmin, or both, fall within the "normal" range. Since individual serum copper and ceruloplasmin levels do not appear to correlate with the usual liver function tests, further attention to nonceruloplasmin copper may be of value. The effects of other plasma constituents such as albumin, globulin, or amino acids as well as the effect of certain therapeutic measures on the nonceruloplasmin fraction need to be determined and will be the subject of subsequent investigation.

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New ACLS Score Predicts Survival from Heart Attack

What you need most to survive a heart attack is a high ACLS Score.

The ACLS Score is a simple and rapid evaluation to help paramedics determine the odds of survival for a heart attack victim.

ACLS is an acronym: A, arrest (heart stoppage) witnessed; C, cardiac rhythm; L, lay bystander to administer cardiopulmonary resuscitation; S, speed (response time of the paramedic unit).

Thus, if someone else is around to help you and to summon medical assistance, your chances of survival are much greater than if you are alone when stricken. How your heart is beating shortly after the seizure also is important in evaluating your survival chances. A bystander with training in resuscitation helps greatly, and the speed of arrival of the emergency team is important.

The Score, reported in the July 3 Journal of the American Medical Association, was developed by King County Emergency Medical Services, Seattle, Washington. Mickey Eisenberg, M.D., and colleagues analyzed 611 cases.

Among 22 patients with favorable findings on all four variables, 70 percent were discharged from the hospital alive. The ACLS Score for this group was 70 percent. (Eighty percent is the maximum).

Among 97 patients with the most unfavorable findings (whose score was zero), only one was discharged alive.

A low score does not mean that the paramedic team will not attempt resuscitation. It means only that the medics, patients, and relatives will have a quick realistic view of the chances of survival.

A heart attack away from the hospital will kill at least 20 percent of the victims regardless of medical care, Dr. Eisenberg points out. Thus he sets the maximum survival score at 80 percent.

Endocrine Transplantation

Progress

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Autotransplantation of human parathyroid fragments has become conventional therapy in many medical centers involved in surgical treatment of primary and tertiary hyperparathyroidism. Advances in technical aspects of in vitro preservation and physiologic studies of human parathyroid cells now allow prediction of graft function and patient evaluation prior to parathyroid autografting. Criteria for patient selection for parathyroid autografting are under development at the present time. Experimental data demonstrating reestablishment of glucose homeostasis after islet transplantation in animals have encouraged investigations of human islet isolation, preservation, and auto- and allotransplantation in several centers. Success with human islet transplantation thus far has been incomplete, relating at least in part to technical difficulties in islet isolation and preservation prior to transplantation. At present, human islet transplantation remains an experimental procedure which holds great potential promise for therapy of diabetic patients in the years to come in the treatment of human diabetics.

The conditions and requirements for successful human endocrine cell transplantation have been topics of intense investigational interest in the last several years; notable advances have been made in several areas, particularly regarding the autotransplantation of human parathyroid tissue and experimental islet transplantation in diabetic animals.

Parathyroid transplantation

Permanent hypocalcemia is an unfortunate complication of surgery for parathyroid and thyroid disorders and is a problem of major proportions, particularly in patients requiring reoperative surgery in the neck. Necessity, as well as optimistic results from experimental studies in rodent and canine experimental models, has stimulated interest in autoimplantation of fragments of parathyroid tissue at the time of neck surgery.[1] In vivo physiologic and histologic studies of patients with parathyroid autografts have suggested functional integrity of these fragment transplants in most instances.[2] This approach has been particularly useful in the management of patients with parathyroid hyperplasia.[3–5]

Technical modifications of classic sternocleidomastoid implant sites have included fine mincing of parathyroid graft tissue and implantation in the forearm musculature with extremely delicate technique, and avoidance of warm ischemic time. Unfortunately, approximately 10 to 30 percent of parathyroid autografts are not functional; on the other hand, recurrent hyperparathyroidism caused by autotransplanted parathyroid adenoma tissue has been reported.[6] These findings have drawn attention to questions that remain relatively unanswered in the field of endocrine transplantation, and include: (1) the importance of the metabolic hormonal milieu of an endocrine cell graft, (2) the relationship of graft site to graft function, and (3) the utility and accuracy of physiologic as well as histologic monitors of graft survival and function. In addition, the potential advantage of short-term in vitro storage of donor parathryoid tissue has been investigated, and patient safety has been enhanced by the addition of either tissue culture or cryopreservation storage procedures for a portion or all of parathyroid tissue resected.[7,8] Initially, somewhat complex methods for in vitro storage have been simplified considerably in recent years, and either the tissue culture or cryopreservation methods are available in most settings today.[9,10] Several medical centers, including our own, have adopted a protocol for parathyroid storage and study prior to transplantation in many instances. An example of such a decision tree is shown in Figure 1. Storage of at least some parathyroid tissue for a period of time is appealing as an alternative to immediate—that is, intraoperative—parathyroid autografting for several reasons. A period of postoperative observation allows time for evaluation of the status of residual parathyroid tissue left in situ at surgery, as well as for careful assessment of the necessity of autografting. In addition, in vitro testing of individual parathyroid specimens might enable identification of autonomous tissue unsuitable for reimplantation; it also might allow some prediction of the amount of parathyroid tissue needed to ensure a physiologic effect in vivo.[11] A long-term benefit of such studies would allow for an enhanced under-

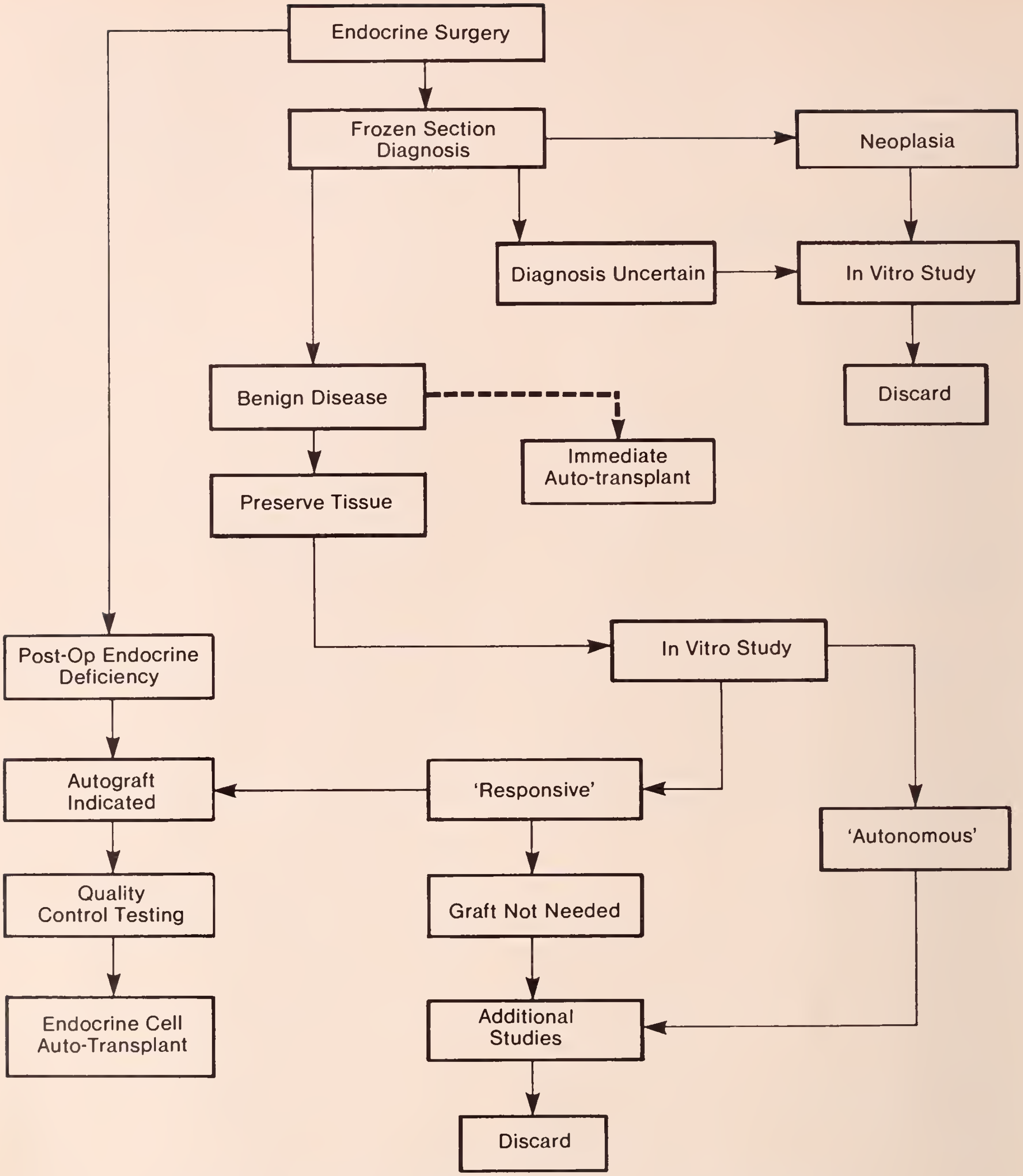

FIGURE 1. Human endocrine cell salvage, preservation, and autotransplantation.

standing of the functional abnormalities of both neoplastic and hyperplastic parathyroid tissue and might lead to a better interpretation of the causes of these disease states. The careful studies of Brown et al.[11] in recent years have identified characteristics of nonsuppressibility vis á vis tissue-culture medium calcium concentration of a percentage of both hyperplasia as well as adenoma tissues from parathyroid sources; they have suggested that there is a spectrum of responsiveness of human parathyroid cells in these disease states.[12,13] Moreover, these in vitro studies have been found to correlate extremely well with in vivo functional assessments of parathyroid disorders, thereby offering the future opportunity to avoid infusion studies in patients with parathyroid dysfunction, and, perhaps, in some instances, to rely on in vitro studies for the precise diagnosis of parathyroid disorders.[13]

The promise of these recent developments in parathyroid autotransplantation, which is most exciting, is the possibility that the incidence of permanent hypocalcemia following neck surgery might be substantially diminished because of the opportunity to store at least a portion of a patient's parathyroid tissue during the early postoperative period. In addition, it is possible that fewer immediate and delayed parathyroid grafts might be needed, since it is conceivable that a portion of the patient population now being subjected to immediate parathyroid autografting might have residual parathyroid tissue left in situ following neck surgery; it might, if observed for a few days postsurgery, be found to maintain normal calcemia without an autograft.

Selectivity, safety, and necessity all have been enhanced by these recent developments.

Islet transplantation

The last several years have witnessed an enormous number of optimistic experimental studies supporting the potential efficacy and feasibility of human islet transplantation.[14] Prompt reversal of experimental hyperglycemic states has been accompanied by evidence for stabilization of experimental diabetic nephropathy and reversal of proteinuria in experimental animals.[15–17] Isolation and in vitro storage of human as well as animal islets has been studied in many centers here and abroad.[18] As with parathyroid tissue, islets may be preserved by both the tissue culture and the cryopreservation methods,[19] although isolation with preservation of human islet tissue is more difficult than is the case with parathyroid tissue. The rate of viability of isolated and stored human islets remains low (less than 10 to 20 percent), and these problems, a major difficulty in human islet transplant efforts, remain to be surmounted.

Human islet autografts have been attempted in several medical centers.[20] Generally the results have been equivocal, and in some instances complications have been reported.[21] To maximize patient safety and to allow for elective multidisciplinary consideration of the advisability of islet reimplantations, our department has followed the guidelines outlined in Figure 1, in situations of islet autotransplantation as well as in parathyroid studies. Storage and in vitro study of human islet tissue prior to autografting are appealing for the same reasons outlined here regarding parathyroid storage. In addition, however, it is extremely important to be able to identify neoplastic pancreatic tissue and avoid its reimplantation. Also, because of the relatively low yield and viability of human islet tissue prepared by methods available today, it is highly advantageous to be able to study this tissue prior to implantation to predict its function after grafting. Islet salvage procedures are worthwhile in several settings, particularly in situations in which trauma requires pancreatic resection; situations in which pancreatic resection is required to remove an islet adenoma; or in patients with chronic pancreatitis requiring pancreatectomy.

Islet allotransplantation in diabetes mellitus

Pancreatic islet allotransplantation in patients with diabetes mellitus remains a highly experimental procedure, in part because of persistent difficulty in islet isolation and storage, but, perhaps most important, because of the immune rejection of islet grafts. A large number of experimental studies available for review suggests the immunogenicity of islet cells and the rejection of islets by both immunocompetent lymphocytes and macrophages and circulating cytotoxic antibodies.[14,15] In some experimental studies, islets have proved to be rejected even more rapidly than are whole organ pancreatic grafts. A variety of experimental methods has been initiated in many laboratories, in the hope of devising membrane encapsulation procedures to protect islet allografts and methods for selective or nonspecific immune suppression of the recipient during the peritransplant period.[20] None of these experimental procedures has resulted in long-term islet survival, and much further work will be required in this area prior to widespread application of islet transplantation in patients with diabetes mellitus. Use of conventional immunosuppressive regimens in diabetic patients to protect islet allografts probably is not indicated except in those patients already having received a kidney allograft, since the complications of conventional immunosuppression are probably more serious than are the long-term complications of diabetes mellitus itself. Islet transplantation in man is potentially feasible and efficacious; its promise has been and will continue to be a major stimulus for investigation in this exciting area.

Adrenal autotransplantation

Several recent studies have pointed to the efficacy of adrenocortical fragment autotransplantation in patients requiring bilateral adrenalectomy for benign disease. No serious complications have been reported in these patients, although in one instance recurrent Cushing's syndrome secondary to adrenocortical autograft hyperfunction has been reported.[22] In selected instances such procedures may be indicated. However, in general, documentation of adrenocortical fragment autograft function has been unconvincing and, on occasion, the management of such patients by exogenous hormone replacement has been complicated somewhat by the presence of an autograft.

Other endocrine tissues

Both theory and experimental study would support the transplantation of thyroid, pituitary, and gonadal tissue, and these tissues remain a focus for investigations in several centers. However, the stimulus for such studies is somewhat less intense, in large part because exogenous replacement for these endocrine cell deficiency states is adequate in the management of most patients with hypothyroidism, hypopituitarism, and gonadal dysfunction. Future studies will undoubtedly include extension of our knowledge of the effects of pituitary cell and thyroid and gonadal transplantation in selected patients with these endocrine cell deficiency states. However, this remains investigational at present.

Comment

The last decade has seen remarkable progress in efforts to transplant human endocrine tissues. Clinical application of transplantation principles has been possible in autograft settings, with both human parathyroid and human islet cells in selected patients. Advances in the technical capability for storing human endocrine tissues in vitro prior to transplantation hold the promise for increased flexibility, predictability, and patient safety in the management of these disorders.

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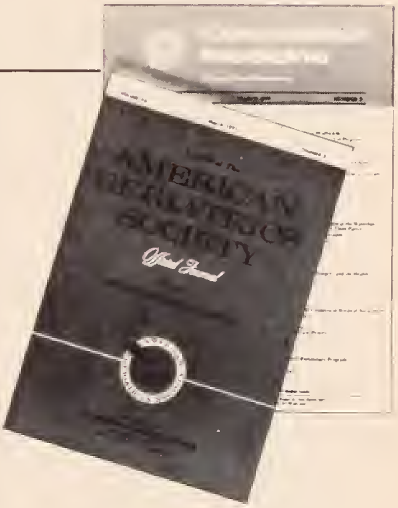

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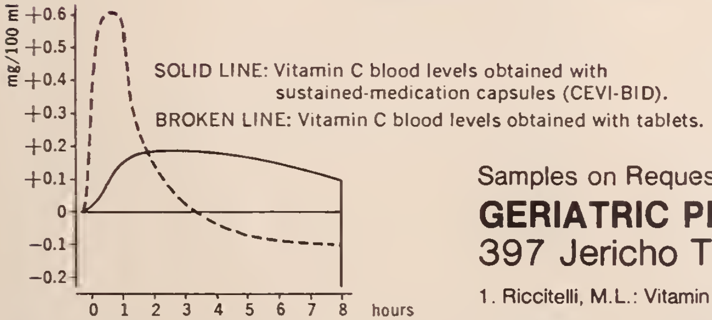

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DEVELOPERS AND SUPPLIERS OF GER-O-FOAM • GAYSAL • B-C-BID

Etiologic Agents of Meningitis in Early Life

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Changes in bacterial causes of meningitis over the past years have led to the use of various empiric antibiotic regimens. A review of 248 cases of meningitis among children less than 17 years of age during the period 1973 to 1978 documented a significant shift in bacteriologic agents of meningitis in early life. GBS (group B streptococcus) (59 percent), GNB (gram-negative bacilli) (26 percent), HIB (Haemophilus influenza type B) (9 percent), NM (Neisseria meningitidis) (3 percent), and SP (Streptococcus pneumoniae) (3 percent) caused meningitis in the first month of life. In the second month, HIB (33 percent), SP (25 percent), NM (25 percent), and GBS (17 percent) were the etiologic agents; GNB were no longer isolated. GBS (33.3 percent) continued to be a major cause of meningitis in the third month along with HIB (33.3 percent), and SP (33.3 percent). HIB (73 percent), SP (14 percent), and NM (13 percent) were the only bacterial isolates beyond three months. These data document two important shifts early in life: (1) HIB is becoming more common in the first month. (2) GNB are no longer a significant cause of meningitis in the second month. Based on the latter observation, ampicillin and chloramphenicol would be the most appropriate antibiotic regimen for the initial management of meningitis in children beyond the first month. Further studies will be needed to determine the efficacy of this antibiotic combination against GBS which remains a major problem through the third month.

Acute bacterial meningitis is a serious disease of children requiring prompt initiation of antibiotics, often before the etiologic agent has been definitely identified. The appropriate choice of empiric antibiotics depends on the bacterial agents most likely to cause meningitis in the particular age group of the patient. Current recommendations suggest that ampicillin and an aminoglycoside be used as initial treatment in children less than two months of age because group B streptococcus and gram-negative enteric bacilli are the commonest etiologic agents.[1,2] Ampicillin or penicillin in combination with chloramphenicol are currently recommended as the empiric therapy for older children with suspected meningitis since *Haemophilus influenzae*, *Streptococcus pneumoniae*, and *Neisseria meningitidis* are the most common causes of meningitis.[1,2] This review was undertaken to clarify conflicting information about causes of bacterial meningitis in the important transitional period of the second month of life. Our review of the years 1973 through 1978 suggests that bacterial causes of meningitis during the second month of life are similar to those of older children with the exception of group B streptococcus and that ampicillin and chloramphenicol would be the most appropriate initial antibiotic coverage.

Materials and methods

A retrospective study of hospital records with the diagnosis of bacterial meningitis, neonatal meningitis, and meningitis due to specific agents for the years 1973 through 1978 was conducted. Records from the bacteriology laboratory were also reviewed to obtain the names of all patients who had cerebrospinal fluid cultures positive for bacteria. Only those cases with bacterial growth in the cerebrospinal fluid were included; thus, cases in which the results of Gram's stain were positive and of culture negative, as might have occurred in partially treated meningitis, were excluded from the analysis. Each chart was carefully reviewed to determine the age of the patient, to confirm the diagnosis of bacterial meningitis, and to eliminate cases that represented cerebrospinal fluid contamination. Spinal fluid was considered contaminated according to the following criteria: the bacterial isolate was typically a nonpathogen; bacterial growth occurred only in broth and not on the solid agar media; other cerebrospinal fluid studies such as cell count, glucose, and protein were not consistent with bacterial disease. Patients with central nervous system anomalies such as meningomyeloceles or ventricular shunts were also excluded from the analysis as were patients with known immunodeficiency states and patients who suffered head trauma.

Results

During the period 1973 to 1978, there were 248 well-documented cases of bacterial meningitis at our hospital. The results were analyzed in groups according to age: infants from birth to 30 days; 31 days to 60 days; 61 days to 90 days; and 91 days to 17 years (Table I). There were 34 neonates with meningitis. Group B streptococcus was isolated from 20 babies and gram-negative enteric bacilli, predominantly *Escherichia coli*, from 9. *H. influenzae*, *N. menin-*

TABLE I. Etiologic agents of meningitis in 248 children from birth to 17 years old, 1973–1978

Agent	Number of Cases (Percent) Birth to 30 days	31 to 60 days	61 to 90 days	91 days to 17 years	Total
Group B streptococcus	20 (59)	2 (17)	4 (33.3)	0 (0)	26 (11)
Gram-negative bacilli	9 (26)	0 (0)	0 (0)	0 (0)	9 (4)
Haemophilus influenzae, type B	3 (9)	4 (33)	4 (33.3)	139 (73)	150 (60)
Neisseria meningitidis	1 (3)	3 (25)	0 (0)	24 (13)	28 (11)
Streptococcus pneumoniae	1 (3)	3 (25)	4 (33.3)	27 (14)	35 (14)
TOTALS	34	12	12	190	248

TABLE II. Summary of etiologic agents of meningitis in children from birth to 30 days old from six representative studies, 1941–1978*

Study	Number of Cases (Percent) GNB	Streptococcus	SP	Staphylococcus	Listeria	HIB	NM	Total
Watson,[3] 1941–1954	33 (77.0)	6 (13.8)	1 (2.3)	1 (2.3)	1 (2.3)	0 (0)	1 (2.3)	43
Groover, Sutherland, and Landing,[4] 1948–1959	16 (59.3)	5 (18.5)	1 (3.7)	1 (3.7)	3 (11.2)	1 (3.7)	0 (0)	27
Mathies and Wehrle,[5] 1963–1966	52 (74.4)	7 (10.0)	3 (4.3)	3 (4.3)	5 (7.0)	0 (0)	0 (0)	70
Yow et al.,[6] 1967–1972	18 (36.0)	19 (38.0)	3 (6.0)	3 (6.0)	5 (10.0)	2 (4.0)	0 (0)	50
Maguire and Myers,[7] 1974–1977	13 (54.2)	10 (41.6)	1 (4.2)	0 (0)	0 (0)	0 (0)	0 (0)	24
Present series, 1973–1978	9 (26.5)	20 (58.7)	1 (3.0)	0 (0)	0 (0)	3 (8.8)	1 (3.0)	34

* Studies from the United States exclusively.
GNB = gram-negative bacilli; SP = *Streptococcus pneumoniae*, HIB = *Haemophilus influenzae*, type B; NM = *Neisseria meningitidis*.

gitidis, and *S. pneumoniae* accounted for the remaining five isolates. During the second month of life, there were 12 infants with meningitis. *H. influenzae*, *N. meningitidis*, *S. pneumoniae*, and group B streptococcus each caused two to four infections. Gram-negative enteric bacilli were not isolated. In the third month of life, there were 12 cases. Group B streptococcus caused four infections as did *H. influenzae* and *S. pneumoniae*. In the fourth group of older children, only *H. influenzae* (139 cases), *S. pneumoniae* (27), and *N. meningitidis* (24) were etiologic agents. Seventeen deaths occurred: five due to *H. influenzae* (3.3 percent); three due to *S. pneumoniae* (8.1 percent); one due to *N. meningitidis* (3.5 percent); three due to group B streptococcus (11.5 percent); and five due to enteric gram-negative bacilli (55.6 percent).

Comment

The most striking finding in this report was the apparent change in distribution of etiologic agents known to cause meningitis early in life. Group B streptococci caused 59 percent, 17 percent, and 33 percent of the meningitides in the first, second, and third months, respectively. In contrast, gram-negative enteric bacilli caused 26 percent of the infections in the first month and failed to produce disease in the second month. The remaining cases of neonatal meningitis were due to *H. influenzae*, *S. pneumoniae*, and *N. meningitidis*.

Earlier studies showed that gram-negative bacilli were the most common cause of neonatal meningitis; however, streptococci were also prevalent (Table II).[3–7] These studies often failed to identify the specific groups of streptococci whereas more recent studies clearly identified group B streptococcus as the dominant type. Other bacterial causes of meningitis in the first 30 days of life were highly variable. *H. influenzae* was an uncommon isolate; our data suggest that it has become more common in the neonatal period. Currently, group B streptococcus is the most frequent cause of neonatal meningitis; however, gram-negative enteric bacilli remain important etiologic agents, and initial antibiotic selection must still be directed against both infectious agents.[8]

Information about meningitis in the second month of life was much more difficult to obtain from previously published reports. Many studies did not separate out etiologic agents by monthly ages. Table III lists the data from three studies including the present series. These data demonstrate that gram-negative bacilli were uncommon isolates during the second month of life and that currently they are even more rare. Because of earlier reports of gram-negative meningitis in the second month, aminoglycoside therapy became part of the empiric antibiotic regimen used in cases of suspected meningitis in this age group. Our data suggest that aminoglycosides are no longer required for initial therapy in suspected cases of bacterial meningitis in infants over 30 days of age since gram-negative bacilli were not isolated from these children during the six-year period reviewed. Ampicillin and chloramphenicol would appear to be the most appropriate combination for the initial management of suspected meningitis in children older than 30 years. It will be important for medical centers in other regions to confirm our observations before this therapeutic regimen could be

TABLE III. Summary of etiologic agents of meningitis in children from 31 to 60 days old from three studies*

Study	Number of Cases (Percent)						
	Streptococcus	SP	HIB	NM	GNB	Other	Total
Yow et al.,[6] 1967–1972	10 (55.5)	1 (5.6)	1 (5.6)	0 (0)	2 (11.1)	4 (22.2)	18
Maguire and Myers,[7] 1974–1977	0 (0)	2 (40.0)	1 (20.0)	0 (0)	1 (20.0)†	1 (20.0)	5
Present series, 1973–1978	2 (16.7)	3 (25.0)	4 (33.3)	3 (25.0)	0 (0)	0 (0)	12

* Studies from the United States exclusively.

† *Salmonella sp.*

widely recommended. Furthermore, studies will be needed to determine the efficacy of the antibiotic regimen against organisms such as group B streptococcus since these bacteria continue to produce disease into the third and fourth months of life.

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Inhaling hair spray blamed in lung damage

Let's not inhale the hair spray, folks. It might kill us.

An American Medical Association publication reports on the case of a 38-year-old woman who suffered severe lung damage from years of heavy smoking combined with an "extreme fondness for a brand of hairspray that she sprayed frequently, creating an aerosol around herself to inhale the perfume."

The patient suffered severe lung damage, developing a condition known as pulmonary lipid granulomata, says J. L. Wright, M.D., of St. Paul's Hospital, Vancouver, British Columbia, Canada.

Dr. Wright, reporting in the July Archives of Pathology and Laboratory Medicine, describes detailed laboratory analysis of a lung biopsy specimen. The lungs showed severe damage, beyond that to be expected from tobacco smoke, he says.

There likely was a combination effect of both the cigarette smoke and the hair spray to intensify lung damage, Dr. Wright speculates. Although the individual stopped using the hair spray for the final year of her life, the damage already had been done.

The aromatic oils in hairspray seem to be the most likely source of lung damage, he declares.

The problem is not new. In 1958 researchers introduced the term "thesaurosis" to describe a form of lung disease associated with excessive use of hairspray.

Mycobacterium Fortuitum-Chelonei

Two patients with fatal pulmonary infection

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Mycobacteria of the *fortuitum-chelonei* complex are rapidly growing, acid-fast organisms belonging to Runyon's Group IV classification. Strains of *M. fortuitum* may be found almost anywhere in the environment including water, soil, and dust; it is not clear whether or not the same is true for *M. chelonei.*[1] Like other atypical mycobacteria, these organisms often colonize the respiratory tract of patients with preexisting pulmonary disease such as inactive tuberculosis, chronic bronchitis, bronchiectasis, and bullous disease.[2]

Human disease associated with the *Mycobacterium fortuitum-chelonei* complex consists mainly of soft-tissue infections.[3] Pulmonary disease caused by these organisms has been described but is usually mild with slight cough and sputum production.[4] Although exceedingly rare, deaths due to *M. chelonei* and *M. fortuitum* pulmonary infections have been observed in association with severe underlying lung disease caused by chronic aspiration in patients with megaesophagus.[5]

We have recently seen two patients in whom *M. fortuitum* and *M. chelonei* appeared to be the major etiologic agents in ultimately fatal pulmonary infections. These cases are presented to alert the physician to the potential pathogenicity of these organisms, to review guidelines for the diagnosis of these infections, and to emphasize the need for the development of effective therapy.

Case reports

Case 1. The patient was a 79-year-old white male with adult onset diabetes mellitus who otherwise was well until January, 1975, when he began to note the onset of weight loss, cough, fatigue, and dyspnea on exertion. In June, 1975, examination by his physician revealed bilateral apical cavities on chest x-ray film and acid-fast bacilli on sputum smear. The patient was then referred to Bellevue Hospital for admission where additional sputum smears were found to be positive for acid-fast bacilli and his PPD test at 5TU (purified protein derivative, 5 international tuberculin units) positive at 10 mm. induration. Serum protein level and results of electrophoresis were normal. After sputum cultures were obtained he was started on therapy with isoniazid and rifampin for a presumptive diagnosis of tuberculosis. All sputum cultures grew only *M. fortuitum.* Nevertheless, isoniazid and rifampin were continued because of the possibility that the *M. fortuitum* was simply a colonizing organism and that *Mycobacterium tuberculosis* was the actual pathogen. The patient was readmitted in January, 1976, because of increasing weight loss, dyspnea, cough, and nausea. Chest x-ray film now showed more extensive cavitary and reticulonodular changes in both lung fields than on previous examinations. Results of liver function tests were grossly abnormal but rapidly reverted to normal when isoniazid and rifampin were discontinued, and remained normal when treatment was resumed with isoniazid and ethambutol. However his sputum smears remained strongly positive for acid-fast bacilli, and he failed to improve either clinically or roentgenographically. Sputum cultures continued to grow only *M. fortuitum* resistant to all the usual antituberculosis drugs, and a trial of a four-drug regimen consisting of isoniazid, ethambutol, rifampin, and streptomycin was begun. On this regimen his liver function test results once again became abnormal and there was further progression of his symptoms along with the development of new infiltrates showing on chest x-ray film. Lung tissue obtained by transbronchial biopsy revealed only interstitial fibrosis. However, culture of the endobronchial washings obtained at bronchoscopy grew a large number of colonies of *M. fortuitum* and a few colonies of *Nocardia asteroides.* All antituberculosis medications were then discontinued because of worsening liver function and the likelihood that *N. asteroides* was the pathogenic organism. Treatment with a sulfamethoxazole-trimethoprim combination for Nocardia was begun. The patient's liver function returned to normal and his symptoms abated. When clinical improvement persisted he was discharged from the hospital, and sulfamethoxazole-trimethoprim therapy alone was continued for about nine months until October, 1976. Repeated attempts thereafter to culture Nocardia from sputum failed, but all cultures throughout this period continued to grow large numbers of *M. fortuitum.*

Over the following year the patient had several more admissions for recurrent cough, fever, and hemoptysis. His chest x-ray films showed progressive worsening with increasing cavitary and reticulonodular disease involving all lobes, and his sputum remained strongly positive for *M.*

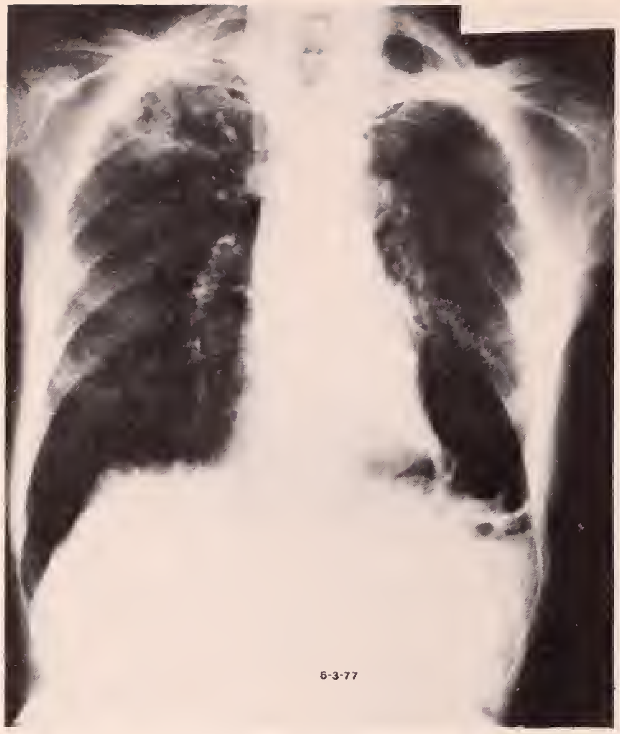

FIGURE 1. Initial chest roentgenogram in Case 2 showing apical fibrotic changes and right upper lobe nodular density.

fortuitum. All cultures were nonpigmented and grew within two weeks. They were niacin-negative; catalase-positive; nitrate reductase-positive; Tween hydrolysis-negative after 10 days; arylsulfatase-positive after 3 days, and tellurite reductase-positive after 3 days. The organism was resistant to isoniazid, streptomycin, para-aminosalicylic acid, ethambutol, ethionamide, rifampin, and cycloserine in all concentrations. It was also resistant to amikacin at a concentration of 30 micrograms per milliliter and erythromycin at 10 micrograms per milliliter.

Because of the progressive nature of this disease and the extensive bilateral pulmonary involvement, a five-drug regimen consisting of amikacin, cycloserine, isoniazid, rifampin, and erythromycin was instituted in spite of the lack of in vitro susceptibility of this organism to any of these antibiotics. The patient's pulmonary disease continued to progress and he died of respiratory failure after 28 months of illness.

Postmortem examination of the lungs showed severe bilateral cavitation and innumerable caseating granulomata. Culture of lung tissue from autopsy specimens grew only *M. fortuitum*. There was no evidence of infection or lesions in any other organ system.

Case 2. The patient was a 71-year-old white male first admitted to the New York Veterans Administration Hospital in June, 1977, for evaluation of hoarseness. His past medical history was significant for a cholecystectomy and a Billroth II procedure with traumatic splenectomy, both many years prior to admission. He had smoked and drunk heavily when younger, but had done neither in the 20 years prior to this illness. He denied previous chronic cough, hemoptysis, tuberculosis, or industrial exposure to known toxins.

Mycobacteria of the fortiutum-chelonei *complex, when found in the sputum, are usually saprophytic colonizers. Although pulmonary disease due to these organisms does occur, it is generally indolent in nature and most frequently found in association with chronic aspiration in patients with megaesophagus. The two cases presented here demonstrate that progressive, fatal pulmonary disease, unresponsive to chemotherapy, can be caused by this group of organisms. They also serve to emphasize the need for the development of effective guidelines to help distinguish saprophytic colonization from progressive pulmonary disease.*

Chest x-ray film at the time of first admission revealed a moderate amount of fibrotic changes in both apices and a 2-cm. nodular density in the right upper lobe (Fig. 1). PPD (5TU) was nonreactive. Transbronchial biopsies taken from the right upper lobe revealed only fibrotic changes; endobronchial anatomy was normal and no laryngeal abnormality was seen. Bronchial washings for cytologic study and acid-fast stains were negative. He was readmitted in June, 1978, with a new productive cough and fever to 101°F. At this time his chest x-ray film showed a new right upper lobe infiltrate with cavitation (Fig. 2). Coughed sputum was now positive for acid-fast bacilli on stain. Review of cultures obtained from the previous bronchoscopy revealed the growth of *M. chelonei* resistant to all the usual antituberculosis drugs. Repeat skin tests including tuberculin, mumps, and dermatophytin were

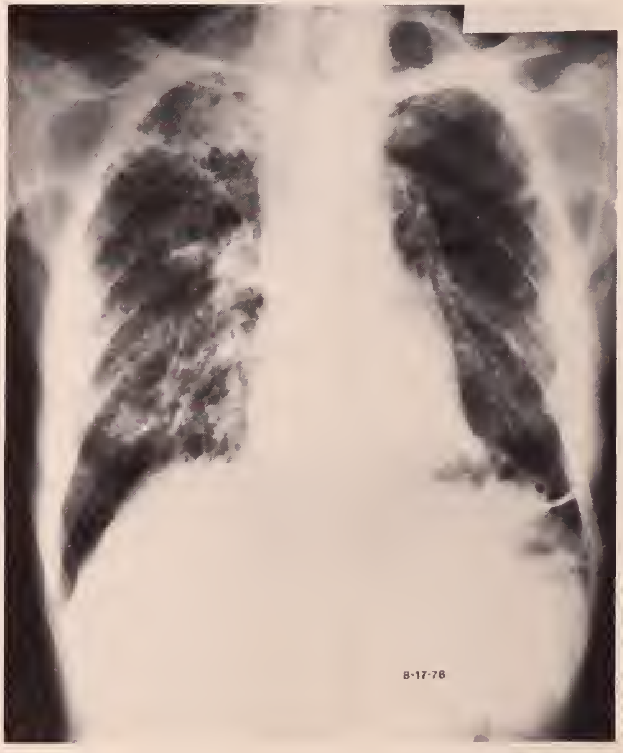

FIGURE 2. Chest roentgenogram, one year later, showing a new right upper lobe infiltrate with cavitation.

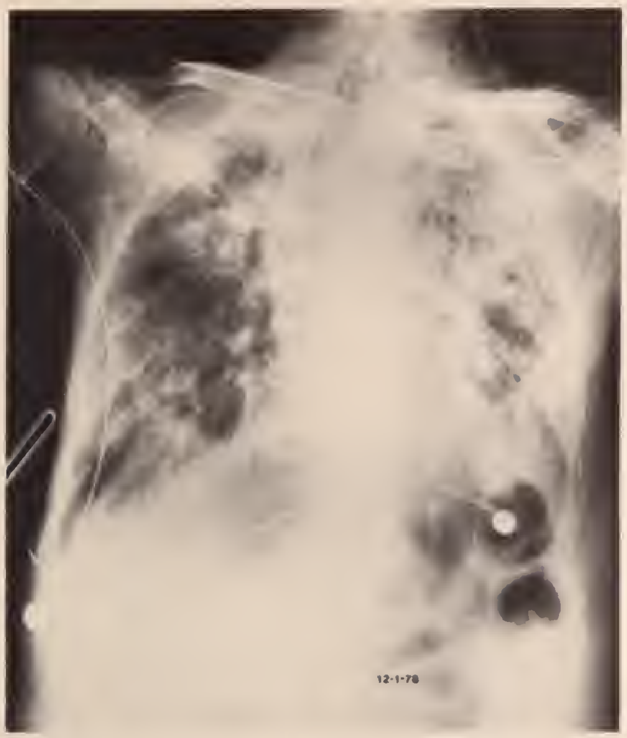

FIGURE 3. Chest roentgenogram shortly before death. Bilateral extensive infiltrates with cavitation are seen.

nonreactive. Serum protein level and immunoelectrophoresis results were normal.

Repeat bronchoscopy was performed and transbronchial biopsies of the right upper lobe showed only chronic inflammation and fibrosis; no granulomata were seen. Bronchial washings were positive for acid-fast bacilli on smear, and all cultures grew exclusively *M. chelonei*. The patient was begun on isoniazid, ethambutol, and rifampin for presumed *M. tuberculosis* infection, thought to be masked on culture by the rapidly growing atypical mycobacterium. His fever resolved, his cough subsided, and he was discharged. However, two months later, in August, 1978, while on the above regimen, he developed hemoptysis, night sweats, and fever to 102°F. Repeat skin testing at this time showed that he was reactive to mumps antigen although still unreactive to PPD. Chest x-ray films now showed cavitary lesions in the right upper lobe, right lower lobe, and lingula. Sputum was markedly positive for acid-fast bacilli on smear, and bronchoscopy revealed blood coming from a scarred and retracted right upper lobe bronchus. It was now thought that the patient had extensive pulmonary infection with *M. chelonei;* ethionamide, amikacin, and erythromycin were added to the above regimen. Surgical resection was not considered because of the bilateral nature of the disease.

Sputum cultures continued to grow only *M. chelonei* in large numbers. The colonies were nonpigmented and grew within two weeks at 25° and 35°C. but not at 45°C. They were niacin-negative, arysulfatase- and urease-positive. They showed no iron uptake or pigmentation in light or dark. Their growth on 5 percent sodium chloride-enriched Lowenstein- Jensen medium allowed their subspeciation as *M. chelonei*. The organism was resistent to isoniazid, streptomycin, para-aminosalicylic acid, viomycin, ethionamide, rifampin, and cycloserine in all concentrations. It was also resistant to amikacin at a concentration of 30 microgams per milliliter and erythromycin at a concentration of 10 micrograms per milliliter.

On the extended regimen described here, the patient initially responded with defervescence and lessening of his leukocytosis. However, fever and cough returned in October, 1978, and the remainder of the patient's course was marked by progressive cavitation involving all lobes, respiratory failure, and death in December, 1978, 18 months after initial presentation (Fig. 3).

The patient's sputum remained both smear- and culture-positive for *M. chelonei* up to the day of death and necropsy revealed extensive pulmonary cavitation and caseating granulomata without evidence of involvement of any other organ system. Lung tissue was not submitted for culture at the time of autopsy.

Comment

Previous reviews of human pulmonary infection with the *M. fortuitum-chelonei* complex have characterized the patients as predominantly middle-aged males with extensive chronic underlying lung disease.[2] Of particular interest has been the association between esophageal disorders and pulmonary disease due to these organisms.[5] It has been postulated that in the setting of disrupted esophageal motility, the atypical mycobacteria are aspirated along with lipids or other food particles. Necrosis of the lung may then occur and, particularly in the setting of related malnutrition and defective cell-mediated immunity, the usually saprophytic organisms are able to proliferate in lung parenchyma. None of these predisposing factors was documented in the first of our patients. However, decreased esophageal peristalsis might have been present since he was a diabetic.[6] The second patient was malnourished and anergic.

In a review of nine cases of *M. chelonei* pulmonary infection, Tsukamura et al.[4] observed that the clinical symptoms were generally mild with minimal cough, sputum, and hemoptysis. Progression of disease was slow. The excretion of acid-fast bacilli was slight and mycobacterial growth scant regardless of the presence or absence of cavitation. The course observed in our patients was much more aggressive than that described by Tsukamura et al.; in both of our patients large numbers of the atypical mycobacteria were repeatedly cultured. Our first case was further complicated by coinfection with another acid-fast organism, *Nocardia asteroides*. In this patient, pulmonary cavitation progressed despite the successful eradication of the Nocardia. Only after repeated isolation from sputum of *M. fortuitum* in large numbers was it appreciated that mycobacterial pulmonary infection was present.

Davidson,[7] commenting on a recent review of *M. avium-intracellulare* pulmonary infection, suggested the following guidelines for defining the presence of disease due to atypical mycobacteria:

1. Repeated isolation of the organism in large numbers from the same source over prolonged periods.

2. Chest x-ray film changes compatible with mycobacterial disease, and exclusion of other pathogenic organisms.
3. Histologic confirmation of mycobacterial infection when possible.

The two patients we have described fulfilled these criteria. Although the role played by the coincidental infection with Nocardia in the first case is not clear, the repeated isolation of *M. fortuitum* and the progression of cavitary lung disease after the disappearance of Nocardia suggest that Nocardia contributed little to the fatal outcome. Culture of lung tissue obtained at autopsy grew only *M. fortuitum*, confirming its role as a pathogen. Failure to demonstrate extrapulmonary pathologic condition strongly suggests that extensive mycobacterial pulmonary infection alone was the cause of death in both patients.

Surgery has been reported as efficacious in selected cases of drug-resistant atypical mycobacterial pulmonary disease.[8] However, because of bilateral pulmonary involvement in both patients, antibiotics remained the only available therapeutic modality. In 1971, Molawi and Weinstein[9] described the in vitro activity of erythromycin against *M. fortuitum*, and Dalovisio and Pankey in 1978[10] reported the in vitro susceptibility of both *M. fortuitum* and *M. chelonei* to amikacin. The organisms isolated from our patients were resistant in vitro to these agents as well as to the commonly used antituberculosis drugs. In the hope that there might be in vivo sensitivity, both patients received amikacin and erythromycin in addition to multiple-drug regimens with standard antituberculosis agents. Neither patient demonstrated a lasting response and both progressed to respiratory failure and death.

As the incidence of tuberculosis diminishes, the atypical mycobacteria are assuming a role of greater clinical importance. The two cases described here emphasize the potential virulence of these organisms which are usually thought of as nonpathogenic colonizers of the respiratory tract. They also confirm the need for early distinction between colonization and disease, using specific criteria such as those mentioned here.

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Carcinoma of Renal Pelvis

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The case histories of 30 patients with proved carcinoma of the renal pelvis were reviewed. In half these patients, the tumor had extended outside the kidney or renal pelvis (Group IV) at the time of diagnosis. The overall survival rate was poor; it was related to grade and stage of the tumor. Patients with a low-grade and low-stage tumor had a better survival rate than did those having anaplastic infiltrating lesions, which had a poor prognosis. The natural history of the disease and results of treatment are discussed. A patient with a proved squamous cell carcinoma of the renal pelvis, who survived eight years following nephrectomy, and excision of a solitary pulmonary metastasis is presented.

Tumors of the renal pelvis are relatively rare; however, 80 percent of them are malignant,[1] and they constitute approximately 5 to 8 percent of all renal tumors.[2] The records of 30 patients with proved carcinoma of the renal pelvis, seen at St. Luke's Hospital Center between 1938 and 1976, were reviewed.

Data on 30 patients

Tissue diagnosis was confirmed in all cases, 28 at the time of surgery and 2 at autopsy. During the same period, 168 patients with proved renal parenchymal tumors were diagnosed, thus giving an incidence of 18 percent for a renal pelvic carcinoma to renal parenchymal tumors. Of the 30 patients studied, 27 had transitional cell carcinoma and the remaining 3 patients had a squamous cell type tumor.

The histopathologic staging and grading were similar to that described by Grabstald, Whitmore, and Melamed.[3] Tumors were further divided into "groups" depending on pelvic pathologic factors and whether or not other urothelial tumors, such as ureteral or bladder, were present (Fig. 1). Group A were those with only renal pelvic involvement and Group B signified those with bladder or ureteral tumors seen simultaneously or nonsimultaneously.

In eight patients, other urothelial tumors were found. Three of these patients had other urothelial carcinomas in the portion of ureter removed, and three patients subsequently developed bladder carcinoma. Two patients, who had had bladder carcinoma previously, later developed renal pelvic carcinoma.

Age and sex incidence. The youngest patient was 44 years of age and the oldest was 88 years, with an average age of 65 years; the majority of patients were in the eighth decade of life (Fig. 2). The sex distribution, 15 of each, was equal, with right-kidney involvement in 17 patients and left in 13.

Presenting symptoms and signs. The most common symptom was gross hematuria, which was seen in 21 patients; an additional two patients had microhematuria. Ten patients complained of flank or back pain, which varied from a constant dull, boring ache to a sharp, colicky type. This variation in type of pain may have been due to a local invasion by tumor, ureteropelvic junction obstruction, or blood clot, causing colic. An abdominal mass was palpable in 11 patients, with hypertension a coincidental finding in 8 patients. The clinical triad of hematuria, pain, and palpable mass was found in only five patients. The clinical signs and symptoms are summarized in Table I. The duration of symptoms varied from a few days to two years, the average time being six and one-half months.

Twenty-nine patients had had intravenous urograms; of these, three patients had a nonfunctioning kidney, and five had marked impairment of renal function. Eighteen patients underwent retrograde pyelogram, confirming a suspicion on the excretory urogram of a space-occupying lesion in the renal pelvis. Angiographic studies performed in five patients proved nondiagnostic.

Urinary cytology studies of voided or catheterized urine were available in 14 patients. These were diagnostic for carcinoma in five patients and suspicious for cancer in seven patients; no evidence of any malignant condition was reported on Papanicolaou smear in two patients.

Surgical treatments. Twenty-two patients had either a lumbar, transabdominal, or thoracoabdominal nephrectomy and partial ureterectomy, and six

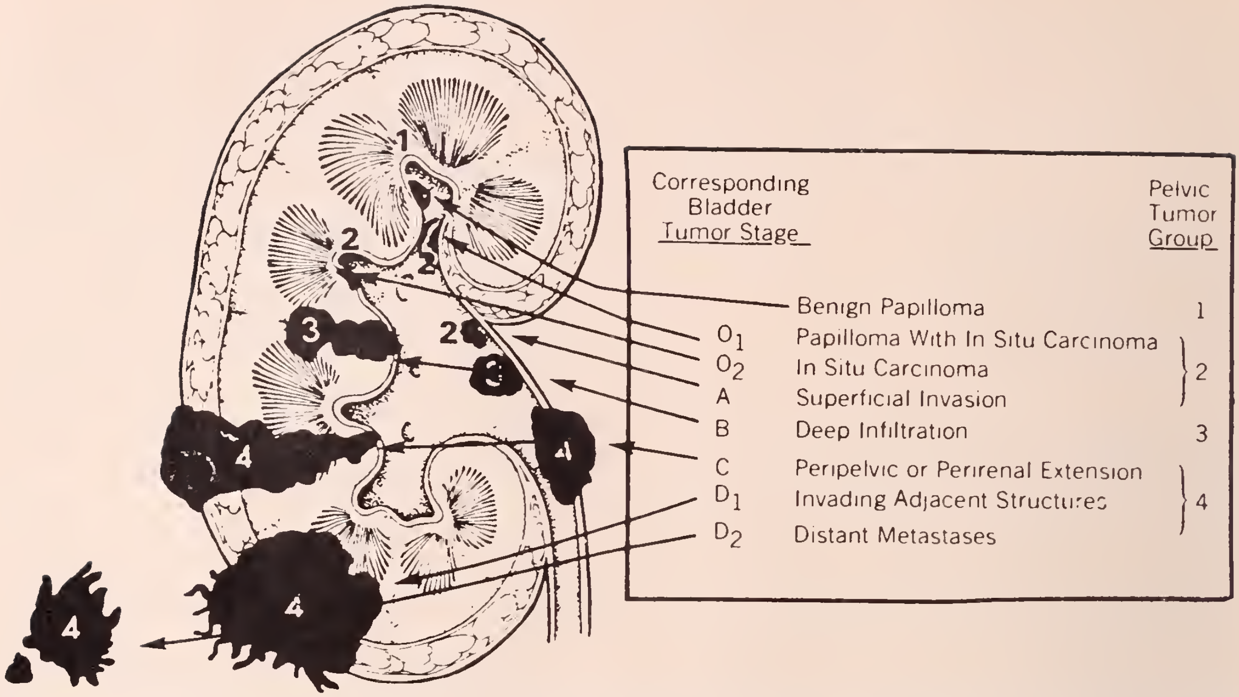
1
2
2
3
2
3
4
4
4
4
Corresponding Bladder Tumor Stage
Pelvic Tumor Group
Benign Papilloma 1
0_1 Papilloma With In Situ Carcinoma
0_2 In Situ Carcinoma
A Superficial Invasion
2
B Deep Infiltration 3
C Peripelvic or Perirenal Extension
D_1 Invading Adjacent Structures
D_2 Distant Metastases
4

FIGURE 1. Schematic diagram illustrating proposed classification of renal pelvic tumors based on stage and compared with classification of bladder tumors by stage. Stage 0 is subdivided into Stages 0_1 and 0_2 according to whether carcinoma in situ was present in papilloma or in flat epithelium.

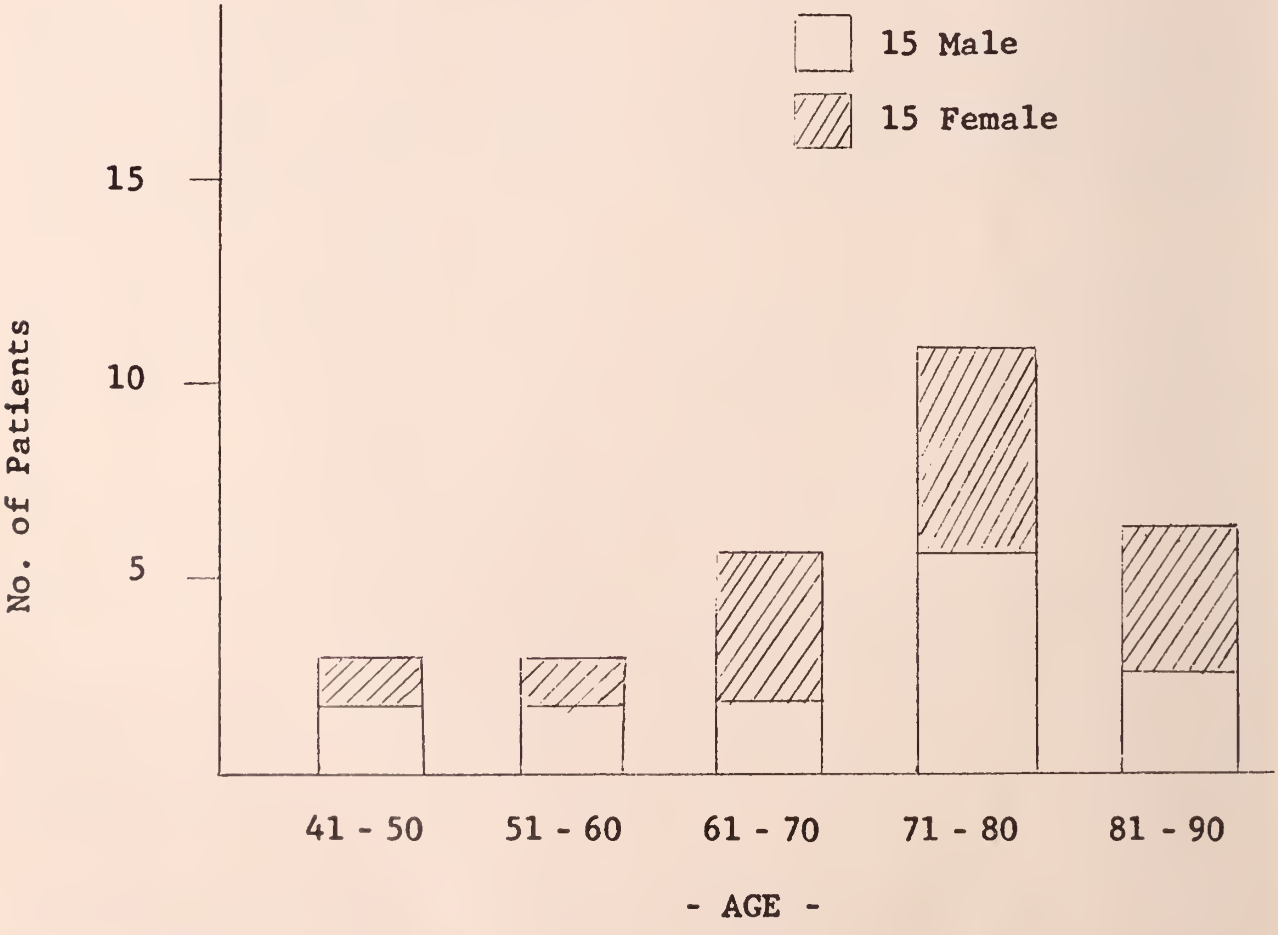

FIGURE 2. Age and sex incidence of 30 patients with proved carcinoma of the renal pelvis.

TABLE 1. Clinical signs and symptoms

Signs and Symptoms	Number of Cases
Hematuria	
gross	21
microscopic	2
Flank or back pain	10
Palpable mass	11
Triad of palpable mass, pain and hematuria	5
Hypertension	8
Anemia	5
Fever	3
Vomiting, weight loss	1

TABLE II. Survival figures of patients with carcinoma of the renal pelvis

Category	Number of Cases	Survival Rates
Transitional cell carcinoma (27 cases)		
Group I	. . .	. . .
Group IIA	7*	10 years alive
		8 years alive
		7 years alive
		5 years dead
		4 years alive
		14 months alive
Group IIB	2	12 months dead
		14 months dead
Group IIIA	3*†	. . .
Group IIIB	2	12 months dead
		6 years dead
Group IVA	10	4 months dead
		5 months dead
		2 months dead
		8 months dead
		12 months dead
		7 months dead
		4 months dead
		3 months dead
		18 months dead
		8 months dead
Group IVB	3	2 years alive
		2 years, after that lost to follow-up
		2 months dead
Squamous cell carcinoma (3 cases)		
Groups I to III	. . .	. . .
Group IV	3	8 years dead
		3 months dead
		9 months dead

* One patient from Group IIA and two patients from Group IIIA died within two weeks postoperatively.

† One patient was lost to follow-up.

patients had a complete nephroureterectomy. Three patients had a delayed ureterectomy, and one patient later required a cystectomy for multiple, invasive bladder tumors.

Results. Of the 27 patients studied with transitional cell carcinoma, one was lost to follow-up and three patients died postoperatively.

There were no patients in Group I. In Group II, 4 out of 7 patients in Group IIA survived from 5 to 10 years; in Group IIB both patients died within 18 months. In Groups IIIA and B, one of five survived six years. In Group IV, one patient survived more than two years. The overall five-year survival rate of patients with transitional cell carcinoma of the renal pelvis was 18.5 percent (Table II).

Squamous cell carcinoma. Of the three patients in Group IV, one patient survived eight years; this merits special mention. A 61-year-old female, who had squamous cell carcinoma of the renal pelvis with solitary metastasis to the left lung, underwent a left nephrectomy in 1956; three months later, a lobectomy was performed to excise a metastatic lesion in the lung, and radiation to the involved lung was applied postoperatively. She did well for eight years, but then developed liver metastases and died. To our knowledge, this is the only case that has survived for more than seven years after local excision of metastatic lesion.

Comment

The incidence of renal pelvic carcinoma in relation to the renal parenchymal tumor in our series was 18 percent, a significantly higher percentage than that reported in the literature.[1,3–7]

The average age of patients in this series was 65 years, the same as that recorded by others.[6,7] However, no age seems to be immune. Six patients with carcinoma of the renal pelvis reported in the literature were infants, the youngest being that of a four-month-old boy reported by Koyanagi et al. in 1975.[8] In other series, the male predominated two to three times more than the females; however, in our series, the males were equal in number to the females. Some authors[3,6,9] found that the right kidney was more often involved with tumor; however, other authors[1,10] found equal involvement of either kidney.

Hematuria was a presenting symptom in 75 percent of the patients, a symptom that had no correlation to either stage or grade of the disease. In Group IV, 7 out of 10 patients who had flank or back pain had high-grade and high-stage tumors; 2 of these patients later developed a local recurrence, and none lived longer than two years. In our series, we found that in 11 patients with palpable abdominal masses, there was no difference with regard to grade and survival when compared with the remaining patients. According to Higgins,[1] a palpable renal mass, regardless of pathologic staging and grading, has a grave prognosis, although Williams and Mitchell[10] found no difference in survival incidence with regard to those findings. The eight patients in our series who had markedly impaired renal function (three nonfunctioning and five delayed visualization) revealed no difference with regard to grade or stage of the carcinoma when compared with other patients; only one of these eight patients survived for five years. Five patients with the "triad" of hematuria, pain, and palpable mass had all high-grade, high-stage lesions and none survived for longer than two years. Becker[11] felt that nonvisualization of the kidney was most likely due to either vessel obstruc-

TABLE III. Occurrence of tumors in bladder or ureter coincidental with or subsequent to diagnosis of renal pelvic carcinoma

Author (Year)	Number of Cases/Total	Percentage
Taylor (1959)[14]	10/32	31
Grace, et al. (1967)[9]	14/32	31
Grabstald, et al. (1971)[3]	37/70	53
Williams and Mitchell (1973)[10]	17/43	40
Wagle, et al. (1974)[7]	37/78	47.4
Cummings, et al. (1975)[16]	18/35	51
Rubenstein, et al. (1978)[18]	25/70	36
Present series (1981)	9/27	33
TOTALS	167/387	43

tion or actual tumor destruction of the renal parenchyma, of sufficient degree to prevent excretion of contrast material. Nonfunction, however, on pyelography, may be seen with both benign and malignant pelvic tumors, irrespective of grade.[3] Only two patients in our series had urinary calculi and none of these had squamous cell carcinoma. Three patients who had squamous cell carcinoma had no calculi.

The results of urinary cytologic examination proved to be directly related to grade and stage of the lesion. The findings may be positive from 62 percent in well-differentiated tumor to 90 percent in poorly differentiated tumors.[12] Zincke, et al.[13] advised that ureteral catheterized urine specimens be used, preferably for cytologic examinations to detect upper urinary tract lesions. These authors found a 61-percent positive yield on separate ureteral catheterized specimens, as compared with 33 percent on voided urine specimens. In our series, of 14 patients who had urine cystologic examinations, five tested out positive for tumors, seven were suspicious for malignant growths, and there were two false negative results.

Renal pelvic carcinoma is commonly associated with multiplicity of tumor of the bladder and ureter.[3,6,7,9,14,15]

Table III shows an average rate of multiplicity of bladder and/or ureteral tumors of 44 percent. Kaplan, McDonald, and Thompson[17] have reported the average time for bladder carcinoma to develop in association with renal pelvic carcinoma to be 5 to 12 months; Grabstald, Whitmore, and Melamed[3] found the time interval to be 21 months, in Williams and Mitchell's[10] series, it was 15 months, and in our series it was 17 months. Bladder carcinoma developing after carcinoma of the renal pelvis occurs most commonly in the region of the ipsilateral ureteral orifice[9]; this finding alone suggests the importance of a nephroureterectomy, with the removal of the bladder cuff. Taylor[14] stated that there was a 15.4-percent recurrence of bladder tumor if the total ureter was removed, as compared with 33-percent recurrence if the ureteral stump was left behind. Incidence of recurrence of tumor in the ureteral stump was reported to be 16 percent by Rubenstein, Watz, and Bucy.[18] Seventeen of our patients underwent nephrectomy with partial ureterectomy, and only one later developed carcinoma of the ureteral stump.

Wagle, Moore, and Murphy[7] found that 58 percent of the bladder recurrences and 33 percent of the ureteral recurrences were noninvasive. Of 32 in Groups I and II, 21 (66 percent), and of 48 in Groups III and IV, 16 (33 percent) developed recurrence in either the bladder and/or ureter. From these data, it seems that low-grade and low-stage lesions have higher preponderance for recurrence; Rubenstein, Watz, and Bucy et al.,[18] have also found higher incidence (76 percent) of bladder recurrence. This might be due to better survival of low-grade lesions that may allow a longer incubation time during which tumors would develop.

Grabstald, Whitmore, and Melamed[3] found that 56 percent of deeply invasive renal pelvic carcinomas had positive findings for lymph node metastases; hence, routine retroperitoneal node dissection was recommended for the involved side. When renal pelvic tumors are of low-grade cancer or are bilateral, there are those who advocate only local excision of these tumors.[18,19–24] Murphy, Zincke, and Furlow[24] treated 15 patients with upper urinary tract tumors with local excision and found only one recurrence in the ipsilateral upper tract. McLoughlin[23] has performed bilateral renal "bench surgery" for radical local excision of renal pelvic tumors and yet preserved enough renal tissue to sustain life.

Squamous cell carcinoma of renal pelvis constitutes from 3.6 percent to 13 percent of all renal pelvic tumors.[25,26]

In our series, 3 of 30 patients (10 percent) had squamous cell carcinoma. All the patients had far advanced lesions at the time of surgery; two of them died within nine months. One patient survived eight years after aggressive surgical therapy for solitary pulmonary lesion. The overall five-year survival rate reported in the literature is 8 percent by Wagle, Moore, and Murphy[7] and 13 percent by Utz and McDonald.[26] The long survival time in the later series was in patients with noninfiltrating or only partially infiltrating lesions. All the deaths (16) were the direct result of disease. Nephroureterectomy and regional node dissection remain the mainstays in management of this disease; the role of radiation and chemotherapy remains to be determined.[25,26]

The overall prognosis in renal pelvic carcinoma was poor. In our series, there was a definite inverse relationship between stage and grade of disease to survival. Others have reported similar results.[3,9] In our series, and in the series by Grabstald, Whitmore, and Melamed[3] and Wagle, Moore, and Murphy,[7] tumors that infiltrated the renal parenchyma, capsule, or perirenal fat had a grave prognosis, regardless of surgical procedure. Even the addition of radiation therapy did not improve the results.

Combination chemotherapy consisting of cisplatin, cyclophosphamide, and doxorubicin hydrochloride (Adriamycin) (CISCA) reported by Sternberg, et al.,[27] and of vinblastine sulfate and chloroethyl-cyclohexyl-nitrosourea (CCNU) reported by von Eyben et al.,[28] are found to be fairly effective and may offer some hope in the future.

Three monthly cystoscopic and urographic evaluations of the bladder and remaining renal unit should be carried out because of the high incidence of recurrence in the bladder and/or upper urinary tract involvement, or the occurrence of any new lesion in the contralateral upper tract. Urinary cytologic findings and cystoscopic examination are especially important during the first three years following nephrectomy because 73 percent of recurrences were found within those years.[24] When malignant cells from upper urinary systems are detected with urographic evidences, aggressive therapy is indicated. In the absence of such urographic findings, but in the presence of positive cytologic evidence, patients should be followed closely since exfoliated cells usually stem from poorly undifferentiated tumors.

Summary

Carcinoma of the renal pelvis is reported in 30 patients, with the incidence of occurrence high in relation to renal parenchymal tumors; it occurred with equal frequency in both sexes.

Correlation of signs and symptoms reveals that patients with the "triad" of hematuria, pain, and palpable mass had high-stage, high-grade lesions. The patients with these grades of lesions had a poor prognosis irrespective of surgical management. A unique case of a patient with squamous cell carcinoma of the renal pelvis with solitary pulmonary metastasis who survived eight years with aggressive surgical therapy of both lesions is presented.

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Drug Information*

In response to numerous requests concerning new drugs marketed in 1980, the following information is provided.

Summary of New Drugs Marketed in U.S.A. in 1980

Amoxapine (Asendin; Lederle). Amoxapine is indicated for the treatment of depression and accompanying anxiety. Clinical studies have shown that it has a more rapid action than either amitriptyline or imipramine. Amoxapine is contraindicated in patients with hypersensitivity to dibenzoxazepine compounds and in the acute recovery phase following myocardial infarction. It should be used with caution in patients with history of urinary retention, angle-closure glaucoma, or increased intraocular pressure.

Adverse reactions. The most frequent adverse reactions noted include drowsiness, dry mouth, constipation, and blurred vision. Less frequently reported adverse effects include anxiety, insomnia, restlessness, nervousness, palpitations, tremors, confusion, excitement, nightmares, ataxia, alterations in electroencephalogram patterns, skin rash, edema, nausea, dizziness, headache, fatigue, weakness, excessive appetite, and increased perspiration. Consult the package insert for a complete listing of less frequent adverse effects.

Interaction potential. Monoamine oxidase inhibitors should not be administered concurrently with amoxapine because hyperpyretic crises and severe convulsions have been reported. Paralytic ileus has been reported when tricyclic antidepressants are taken in combination with other anticholinergic agents. Amoxapine may enhance response to alcohol, barbiturates, and other CNS (central nervous system) depressants.

Dosage. The adult dose is 50 mg. three times a day, not exceeding 300 mg.

Availability. Amoxapine is supplied as 50 mg., 100 mg., and 150 mg. tablets.

Calcifediol (Calderol; Upjohn). Calcifediol is the monohydrate of 25-hydroxy-cholecalciferol. It is indicated for the treatment and management of metabolic bone disease associated with chronic renal failure. It is contraindicated in patients with hypercalcemia or evidence of vitamin D toxicity. Other vitamin D derivatives should not be administered concomitantly. Safety of calcifediol in pregnant women, nursing mothers, and pediatric patients has not been determined.

Adverse reactions. The adverse reactions noted, in general, are similar to those encountered with excessive vitamin D intake, hypercalcemia, hypercalciuria, and hyperphosphatemia. Adverse effects reported early in therapy include weakness, headache, somnolence, nausea, vomiting, dry mouth, constipation, muscle pain, bone pain, and metallic taste. Other adverse effects seen later in therapy include polyuria, polydipsia, anorexia, irritability, weight loss, nocturia, conjunctivitis, pancreatitis, photophobia, rhinorrhea, pruritus, hyperthermia, decreased libido, elevated BUN (blood urea nitrogen), albuminuria, elevated SGOT (serum glutamic oxaloacetic transaminase) and SGPT (serum glutamic pyruvic transaminase), hypertension, cardiac arrhythmias, and, rarely, overt psychosis.

Interaction potential. Cholestyramine has been reported to reduce absorption of fat-soluble vitamins, and thus calcifediol absorption may be decreased. Calcifediol should be given cautiously to patients receiving digitalis because hypercalcemia in such patients may precipitate cardiac arrhythmias. Phenytoin and barbiturate anticonvulsants may increase metabolic inactivation of vitamin D thus increasing calcifediol requirements.

Dosage. The optimal daily dose of calcifediol must be carefully determined for each patient. For the treatment of chronic renal failure and patients being dialysed, the initial dosage is 300 to 350 micrograms administered weekly on a daily or alternate-day schedule. See package insert for complete dosage schedules.

Availability. Calcifediol is available in 20 microgram and 50 microgram capsules for oral administration.

Calcium polycarbophil (Mitrolan; A. H. Robins). Calcium polycarbophil is a bulk laxative and antidiarrheal agent that restores normal stool consistency by retaining free water in the lumen of the intestine and indirectly opposes dehydrating forces of the bowel. It is indicated for the treatment of constipation or diarrhea associated with conditions such as irritable bowel syndrome, diverticulosis, and acute nonspecific diarrhea. It is contraindicated in patients with signs of GI (gastrointestinal) obstruction.

Adverse reactions. Abdominal fullness is occasionally noted. This may be relieved by administering smaller, more frequent doses.

Interaction potential. None reported to date.

Dosage. Dosage should be adjusted according to individual response. The tablets should be chewed and swallowed. The usual adult dose is two tablets four times a day, not to exceed 12 tablets per day. For severe diarrhea, the dosage may be repeated every half hour, but should not exceed 12 tablets per day. Refer to the package insert for pediatric dosages.

Availability. It is supplied in chewable tablets each containing 500 mg. of polycarbophil.

Clocortolone pivalate (Cloderm; Ortho). Clocortolone pivalate is a synthetic corticosteroid in a water-washable, emollient cream base. The drug possesses anti-inflammatory, antipruritic, and vasoconstrictive actions, and is indicated for relief of the inflammatory manifestations of corticosteroid responsive dermatoses. It is contraindicated in those patients with a history of hypersensitivity to any of its components. If irritation develops, the product should be discontinued. Safety during pregnancy has not been established. See package insert for complete listing of precautions.

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* This column is prepared by the International Pharmaceutic Drug Information Center (IDIC) affiliated with the Arnold and Marie Schwartz College of Pharmacy and Health Sciences of Long Island University, 81 DeKalb Avenue, Brooklyn, New York 11201. The Director is Jack M. Rosenberg, Pharm.D., Ph.D, Associate Professor of Clinical Pharmacy. The Consultant is Walter A. Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College. The Center is available from Monday through Friday from 9:00 A.M. to 5:00 P.M. For quick response to your questions, call (212) 622-8989 or (212) 330-2735.

Adverse reactions. Local adverse reactions have been reported with topical corticosteroids and include burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, and miliaria.

Interaction potential. None were reported as yet.

Dosage. Apply sparingly to the affected areas three times a day. In resistant cases, it may be applied more frequently—or use occlusive dressing technique. See package insert for complete directions.

Availability. Clocortolone pivalate cream 0.1 percent is supplied in tubes containing 15 Gm. and 45 Gm.

Daunorubicin hydrochloride (Cerubidine; Ives). Daunorubicin is an antibiotic indicated for remission induction in acute nonlymphocytic leukemia in adults. It is contraindicated in patients with preexisting drug-induced bone marrow suppression. It should be used with caution in patients with preexisting heart disease or previous therapy with doxoruhicin. Daunorubicin is known to be teratogenic, and if used during pregnancy, the patient should be apprised of the potential hazard to the fetus.

Adverse reactions. Dose-limiting toxicity includes myelosuppression and cardiotoxicity. Other effects are reversible alopecia, nausea, vomiting, diarrhea, fever, chills, and skin rash. Extravasation during administration may result in tissue necrosis.

Interaction potential. None reported.

Dosage. As a single agent daunorubicin is given in a dosage of 60 mg. per square meter body surface per day, intravenously, on days 1, 2, and 3, every 3 to 4 weeks. See the package insert for the complete dosage regimen.

Availability. It is supplied in vials containing 5 mg. daunorubicin to be reconstituted with 4 ml. sterile water for injection.

Dipiverfrin hydrochloride (Propine; Allergan). Dipiverfrin hydrochloride solution is a 0.1 percent sterile, isotonic ophthalmic solution. It is a member of a class of drugs known as prodrugs. Prodrugs are usually not active in themselves and require biotransformation to a parent compound before therapeutic activity is seen. Dipiverfrin is the prodrug for epinephrine. It is indicated as initial therapy for the control of elevated intraocular pressure in chronic open-angle glaucoma. Patients responding inadequately to other antiglaucoma therapy may respond to this drug. Therapeutic response to twice daily administration is somewhat less efficacious than 2 percent epinephrine administered daily, and is comparable to 2 percent pilocarpine administered four times daily. Dipiverfrin is contraindicated with narrow-angle glaucoma and in patients showing hypersensitivity to any of its components. Safe use in pregnant women, nursing mothers, and children has not been established.

Adverse reactions. Ocular burning and stinging is the most frequent side effect reported with dipiverfrin therapy. Macular edema, tachycardia, arrhythmias, and hypertension have been reported with ocular administration of epinephrine and thus may occur with dipiverfrin therapy.

Interaction potential. None reported.

Dosage. The usual dosage of dipiverfrin is one drop every 12 hours.

Availability. It is supplied as 0.1 percent sterile solution in plastic dropper bottles.

Meclocycline sulfosalicylate (Meclan; Ortho). Meclocycline sulfosalicylate 1 percent is a synthetic tetracycline antibiotic in a yellow vanishing cream base, indicated for the topical treatment of acne vulgaris. It is contraindicated in patients who have shown hypersensitivity to any of its components or to other tetracyclines. As percutaneous absorption after prolonged use may occur, caution should be exercised when administering meclocycline sulfosalicylate to patients with hepatic or renal dysfunction. Safety in pregnancy and nursing mothers has not been established.

Adverse reactions. Meclocycline is usually well tolerated. Temporary follicular staining may occur with excessive application. There have also been isolated reports of skin irritation and one report of acute contact dermatitis after its use.

Interaction potential. None were reported after topical use. However, as systemic absorption is possible, caution should be observed when used with other agents known to interact with the tetracyclines.

Dosage. Meclocycline sulfosalicylate should be applied to the affected area twice daily in the morning and evening, although less frequent application may be effective depending on patient response.

Availability. It is supplied as a 1 percent cream in 20 Gm. tubes.

Meclofenamate sodium (Meclomen; Parke-Davis). Meclofenamate sodium is a nonsteroidal anti-inflammatory agent indicated for relief of the signs and symptoms of acute and chronic rheumatoid arthritis and osteoarthritis. Since it has a potential to produce severe gastrointestinal effects, it is not recommended as the initial drug of treatment. It is contraindicated in patients who have shown hypersensitivity to it. As a potential of cross-sensitivity exists with aspirin and other nonsteroidal anti-inflammatory drugs, meclofenamate should not be given to patients in whom these drugs induced symptoms of bronchospasm, allergic rhinitis, or urticaria. Meclofenamate is not recommended for use during pregnancy or in nursing mothers. Safety and effectiveness in children below age 14 has not been established.

Adverse reactions. The most commonly associated adverse reactions with meclofenamate involved the gastrointestinal system and were manifested by diarrhea and nausea with or without vomiting and/or abdominal pain. Other gastrointestinal adverse effects include pyrosis, flatulence, anorexia, constipation, stomatitis, and peptic ulcer. Headache, dizziness, rash, edema, urticaria, pruritus, tinnitus, palpitation, malaise, fatigue, paresthesia, insomnia, depression, nocturia, and taste disturbances also occur.

Interaction potential. Meclofenamate enhances the effect of warfarin. Therefore, when it is given to a patient receiving warfarin, the dosage of warfarin should be reduced to prevent excessive prolongation of the prothrombin time. Concurrent administration of aspirin may lower meclofenamate plasma levels, and greater fecal blood loss results from concomitant administration than from either drug alone.

Dosage. The dosage is 200 to 400 mg. per day administered in three or four equal doses. See package insert for complete information.

Availability. It is supplied in 50 mg. and 100 mg. capsules.

Naproxen sodium (Anaprox; Syntex). Naproxen sodium is a non-narcotic analgesic with anti-inflammatory and antipyretic action. It is indicated for the relief of mild to moderate pain and for the treatment of primary dysmenorrhea. It is also indicated for the treatment of the signs and symptoms of rheumatoid arthritis and osteoarthritis. Naproxen is contraindicated in patients who have shown hypersensitivity to it. As potential exists for cross-sensitivity reactions, it should not be given to patients in whom aspirin or other nonsteroidal, anti-inflammatory drugs induced the syndrome of bronchospasm, rhinitis, or urticaria. Safety during pregnancy has not been established. Caution should be exercised if the drug is administered to a nursing mother. Effectiveness in children has not been established.

Adverse reactions: The most frequent adverse effects reported in incidences greater than 1 percent include constipation, heartburn, abdominal pain, nausea, dyspepsia, diarrhea, stomatitis, headache, dizziness, drowsiness, lightheadedness, vertigo, edema, dyspnea, and palpitation. Itching, skin eruptions, sweating, purpura, tinnitus, hearing disturbances, and thirst were also reported. For less frequent adverse reactions consult the package insert.

Interaction potential. Short-term controlled studies failed to show that naproxen sodium significantly affects the prothrombin time when administered to individuals on coumarin-type anticoagulants; however, caution is advised, since interactions have been seen with other nonsteroidal agents of this class. Similarly, patients receiving hydantoins, sulfonamides, or sulfonylureas concurrently with naproxen should be observed for signs of toxicity to these drugs. Concurrent administration of probenecid with naproxen increases the half-life of this drug.

Dosage. Recommended dosage for mild to moderate pain and dysmenorrhea is one 275 mg. tablet followed by one 275 mg. tablet every six to eight hours as required.

Availability. Naproxen sodium is available in 275 mg. and 500 mg. tablets.

Oxamniquine (Vansil; Pfizer). Oxamniquine is a tetrahydroquinoline derivative indicated for the treatment of all stages of *Schistosoma mansoni* infections. Oxamniquine should be administered with extreme caution and under medical supervision to patients with history of convulsive disorders as occasional instances of epileptiform convulsions have been reported. The safety of the drug in pregnancy and nursing mothers has not been fully established.

Adverse reactions. Oxamniquine is generally well tolerated especially if taken after meals. However, transitory dizziness or drowsiness has occurred in about one third of patients. Other adverse effects noted include headache, nausea, vomiting, abdominal pain, anorexia, and urticaria.

Interaction potential. None were reported as yet.

Dosage. The recommended adult dosage, given after meals, is 12 to 15 mg. per kilogram as a single oral dose. For children under 30 kg., the recommended dosage is 20 mg. per kilogram given in two doses of 10 mg. per kilogram, two to eight hours apart.

Availability. Oxamniquine is supplied as 250 mg. capsules.

Ritodrine hydrochloride (Yutopar; Merrell-National). Ritodrine hydrochloride is a beta-2-adrenergic agonist. It is indicated for the management of preterm labor. It decreases the incidence of neonatal mortality and respiratory distress syndrome. Ritodrine is contraindicated when known hypersensitivity to any component of the product exists. It should not be given before the twentieth week of pregnancy and in those conditions where pregnancy is hazardous to the mother or fetus. The drug should be administered with extreme caution to patients with mild to moderate preeclampsia, eclampsia, hypertension, and diabetes. No teratogenic effects were reported.

Adverse reactions. Most frequent adverse effects associated with intravenous administration of ritodrine are dose-related. They include alterations in maternal and fetal heart rates and in maternal blood pressure. Patients with persistent tachycardia or decreased diastolic blood pressure may require withdrawal of the drug. Ritodrine infusion is also associated with transient elevation of blood glucose and insulin. Other frequent adverse effects observed in 10 to 50 percent of the patients include palpitations, tremors, nausea, vomiting, headache, and erythema. Occasional and infrequent adverse effects observed with intravenous therapy of ritodrine include nervousness, jitteriness, restlessness, emotional upset, anxiety, and chest pain or tightness. Adverse effects reported after oral therapy include increase in maternal heart rate, palpitation, tremor, nausea, jitteriness, rash, and arrhythmia. Neonatal adverse effects include hypoglycemia and ileus. Hypotension and hypocalcemia have been reported in some neonates whose mothers were treated with ritodrine.

Interaction potential. Corticosteroids used concomitantly with ritodrine may lead to pulmonary edema. The effects of other sympathomimetic amines may be potentiated when concurrently administered, and thus a sufficient time interval should elapse before administering a sympathomimetic drug to a patient receiving ritodrine therapy. Coadministration of other beta-adrenergic drugs should be avoided as they inhibit its action. The possibility that hypotensive effects may be potentiated should be considered when used with anesthetics in surgery.

Dosage. In the management of preterm labor, the initial intravenous treatment should usually be followed by oral administration. The optimum dose of ritodrine is determined by a clinical balance of uterine response and unwanted effects. The usual initial dose is 0.1 mg. per minute and may be gradually increased by 0.05 mg. per minute every 10 minutes until desired results are obtained. One 10 mg. tablet may be given 30 min. before the termination of intravenous therapy. See package insert for complete dosing information.

Availability. It is supplied in 5 ml. ampules, each containing 50 mg. of ritodrine hydrochloride. It is also available in 10 mg. tablets.

Trifluridine (Viroptic; Burroughs Wellcome Co.). Trifluridine is an antiviral agent for topical ophthalmic administration. It is indicated for the treatment of primary and recurrent epithelial keratitis. It is also effective in the treatment of epithelial keratitis resistant to topical vidarabine and idoxuridine. It is contraindicated in individuals with a history of hypersensitivity to it. Safety in pregnant women and nursing mothers has not yet been established.

Adverse reactions. The most frequent adverse reactions noted include mild, transient burning or stinging on instillation (4.6 percent) and palpebral edema (2.8 percent). Other adverse reactions include superficial punctate keratopathy, epithelial keratopathy, hypersensitivity reactions, stromal edema, irritation, keratitis sicca, hyperemia, and increased intraocular pressure.

Interaction potential. No interactions have been reported.

Dosage. Instill one drop every two hours while awake until the herpetic lesion has completely re-epithelialized, then one drop every four hours for seven days post re-epithelialization. Continuous administration of trifluridine for periods exceeding 21 days should be avoided because of potential ocular toxicity.

Availability. It is supplied as 1 percent sterile ophthalmic solution in a plastic Drop-Dose dispenser bottle of 7.5 ml.

Trimethoprim (Proloprim; B. W.; Trimpex; Roche). Trimethoprim is a synthetic antibacterial agent indicated for treatment of initial episodes of uncomplicated urinary tract infections due to susceptible organisms. It is contraindicated in individuals who are hypersensitive to it and in patients with documented megaloblastic anemia due to folate deficiency. Trimethoprim should also be given with caution to patients with impaired renal or hepatic function. It should be used during pregnancy only if potential benefit justifies the potential risk to the fetus. It is excreted in human milk and should not be given to nursing mothers. The safe use of the drug in children under 12 years of age has not been established.

Adverse reactions. The most common adverse effects noted are rash and pruritus. Other adverse effects encountered involve the GI and hematopoietic systems. Miscellaneous reactions reported include fever, elevation of serum transaminases, bilirubin, blood urea nitrogen, and serum creatinine levels.

Interaction potential. No interactions were reported to date.

Dosage. The usual oral adult dose is 100 mg. of trimethoprim every 12 hours for 10 days.

Availability. It is supplied in 100 mg. white tablets.

Zomepirac sodium (Zomax; McNeil). Zomepirac sodium is a nonsteroidal anti-inflammatory agent indicated for the relief of mild to moderately severe pain. It is contraindicated in patients who have previously exhibited intolerance to it and should be avoided in patients in whom aspirin and other nonsteroidal anti-inflammatory drugs have induced sensitivity reactions. Zomepirac sodium should be used with extreme caution in patients with a history of upper GI tract disease, as GI bleeding and ulcerations have occurred. Caution should be exercised in patients with impaired renal function, fluid retention, hypertension, heart failure, coagulation disorders, and in whom chronic use is contemplated.

Adverse reactions. The incidence of adverse reactions is substantially greater in patients receiving long-term therapy (more than one week) rather than short-term therapy. The most frequent adverse reaction noted with long term therapy was nausea. Other adverse reactions noted include GI distress, diarrhea, abdominal pain, dyspepsia, constipation, flatulence, vomiting, dizziness, insomnia, edema, elevated blood pressure, rash, asthenia, and urinary tract infections. Consult the package insert for a complete listing of adverse effects.

Interaction potential. The concurrent use of zomepirac sodium and aspirin is not recommended.

Dosage. The recommended adult dose of zomepirac sodium is 100 mg. every four to six hours as required. For the treatment of mild pain, 50 mg. every four to six hours may be sufficient. Single doses greater than 100 mg. are not recommended.

Availability. Zomepirac sodium is available as scored hexagonal 100 mg. tablets.

Summary of New Indications in 1980 for Previously Marketed Drugs

Generic Name	Brand Name (Manufacturer)	How Supplied	Route of Administration	New Indications
Bromocriptine	Parlodel (Sandoz)	2.5 mg. tablet	Oral	Prevention of postpartum lactation
Carbenicillin	Geocillin (Roerig)	382 mg. tablet	Oral	Prostatitis caused by susceptible organisms
Cimetidine	Tagamet (Smith Kline & French)	200 mg. tablet 300 mg. tablet 300 mg./5 ml. liquid 300 mg./2 ml. injectable	Oral	Prophylactic use to prevent duodenal ulcer recurrence in patients likely to need surgical treatment.
Clindamycin	Cleocin-T (Upjohn)	0.1 percent solution	Topical	For treatment of acne vulgaris
Erythromycin	Staticin (Westwood)	1.5 percent solution	Topical	For treatment of acne vulgaris
Glucagon	Glucagon (Lilly)	1 mg. 10 mg. powder for injection	Injection	Diagnostic aid in the radiologic examination of the GI tract when a hypotonic state would be advantageous
Indomethacin	Indocin (Merck Sharp & Dohme)	25 mg. capsule 50 mg. capsule	Oral	Long-term management of moderate osteoarthritis of any joint
Naproxen	Naprosyn (Syntex)	250 mg. tablet 375 mg. tablet	Oral	Relieving symptoms associated with osteoarthritis
Tolmetin	Tolectin (McNeil)	200 mg. tablet 400 mg. tablet	Oral	Relieving symptoms associated with osteoarthritis

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Electrocardiograms of the Month

Montefiore Hospital and Medical Center
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Editors
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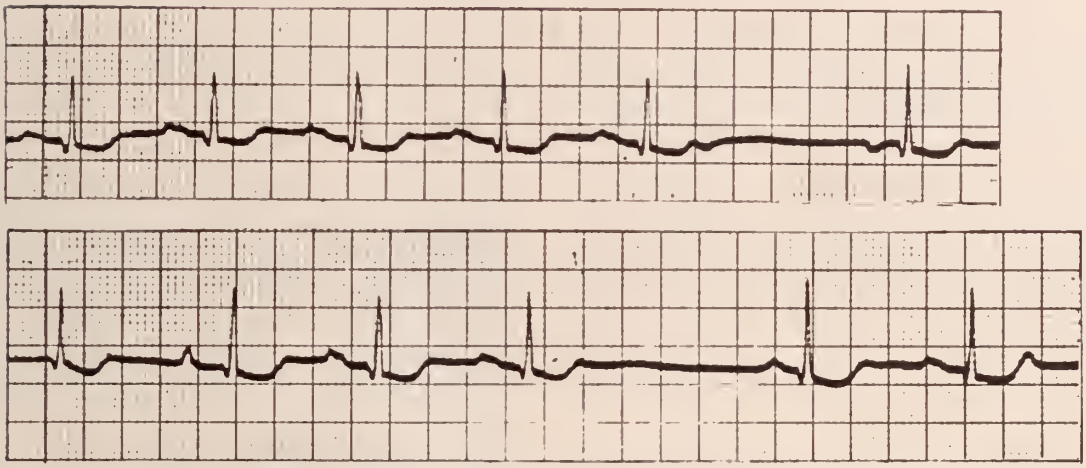
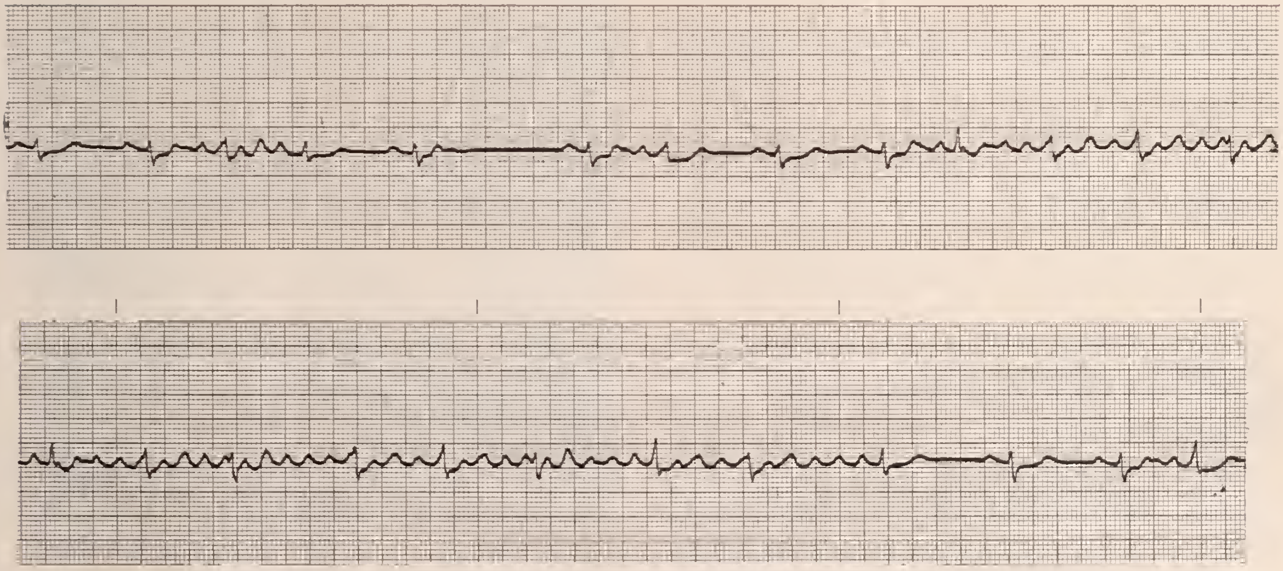


QUESTION 325: Noncontinuous strips of lead 2. What is the rhythm?



QUESTION 326: This tracing is a continuous lead 2. What is the interpretation?

Electro-
cardiograms
of the Month

ELUCIDATION

Question 325. In the top strip, the rhythm is regular sinus at a rate of 80 per minute. The P-R interval is slightly prolonged to 0.23–0.24 second (1° heart block). There is a pause after beat 5. There is a small positive wave superimposed on the S-T segment. This positive wave is a blocked premature P wave; it appears early and is not conducted to the ventricles. There is a pause with absent P waves until the next P and QRS appears. The P wave following the long pause is inverted with a normal P-R interval. This negative P wave is an atrial escape beat.

A similar pause is seen in the bottom strip. The premature blocked P wave is not as clearly identifiable as it falls on the end of the T wave.

The change in configuration of the P waves in the bottom strip is due to a shifting atrial pacemaker. Atrial premature beats are often nonconducted when 1° A-V block is present.

Question 326. The basic rhythm is sinus. There are recurrent interruptions of the sinus rhythm which have a regular undulating baseline at a rate of 350 per minute. During these undulations the ventricular rate is irregular. The rhythm at this time is atrial flutter with an irregular ventricular response due to varying A-V block.

The ventricular complexes preceding the onset of atrial flutter have deformed S-T segments. These deformities are atrial premature depolarizations. They occur on the T of the P wave and initiate the flutter. The same mechanism may cause atrial fibrillation.

All P waves are followed by a negative wave of low amplitude (T of P). These atrial T waves are usually not visible in the routine electrocardiogram because they are buried in the S-T segment; they may cause a slight S-T depression.

Silicone bag breast implants may burst, Texas physician warns

A warning to women who have received silicone-filled implants to enhance breast size—avoid a blow to the breast. The implanted bag may burst.

The June issue of an American Medical Association specialty journal reports on a case in Texas in which this happened. The released silicone moved through the body, up the shoulder and down into the arm, forming a hard, unsightly mass along the upper arm. Also the breast was deflated and smaller than its mate. Plastic surgery was required to remove the material and to replace the ruptured breast implant.

Writing in Archives of Dermatology, James Mason, M.D., of the University of Texas Medical Branch, Galveston, points out that use of silicone injections and implants for cosmetic purposes has been widespread for many years. Currently, it is used principally in implantable gel-filled bags.

Injection of liquid silicone is banned by the Food and Drug Administration because of the tendency to flow through the body away from the enhanced site, and cause cosmetic and health problems. It is this process that occurs when one of the implanted bags bursts.

Silicone used in the gel implants varies in consistency and cohesiveness, depending on the manufacturer, Dr. Mason says. Rupture of the gel-filled implants with subsequent diffusion of leaked silicone can be due to a relatively minor blow to the breast, he points out.

Usually the patient first notices that something is wrong when the breast suddenly becomes smaller, or notices a lump forming under the skin somewhere else in the body.

Radiologic Problem of the Month

Montefiore Hospital and Medical Center
The Bronx, New York

Editor

KAKARLA SUBBARAO, M.D.
Professor of Radiology at
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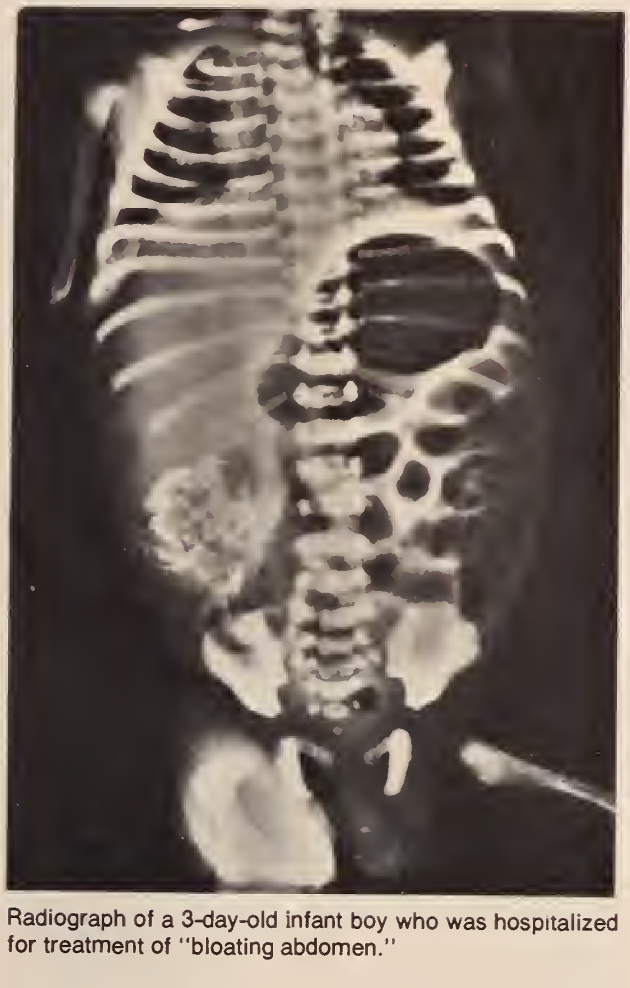
Distended Abdomen in an Infant



Radiograph of a 3-day-old infant boy who was hospitalized for treatment of "bloating abdomen."

Elucidation

Supine radiograph of the abdomen reveals a gas distended stomach and small bowel. A variable amount of gas is present in the colon and rectum. In addition, a well-circumscribed, calcific mass is observed in the right flank. The calcifications are curvilinear and plaque-like. Several punctate calcifications may also be noted in the right side of the scrotum. With these radiological findings, mechanical intestinal obstruction is ruled out and the diagnosis of meconium peritonitis entertained.

Meconium peritonitis is an inflammatory process occurring in the peritoneal cavity of the newborn and is invariably a sequel to intestinal perforation in utero. An aseptic inflammatory mass of varying extent results from exposure of the serous membrane to the irritating material. In the process of healing, calcification occurs rapidly and has a variable distribution.[1,2]

Clinical examination reveals that these infants appear with abdominal distention. Symptoms of acute mechanical intestinal obstruction may, or may not, be associated with the distention. Male infants may also have scrotal swellings as the peritonitis extends through the processus vaginalis into the scrotum.[3] Rarely, cases may be encountered when abdominal calcification is discovered incidentally. This is a sealed-off result of an intrauterine accident and may not produce any symptoms. About 25 percent of these infants with meconium peritonitis may have associated cystic fibrosis.

Pathologic studies reveal observable deposits of calcium in the peritoneal surface that may even extend into the intestinal wall and bowel lumen. In fatal cases, intestinal atresia may be present. In the majority of instances, amorphous deposits of calcium are encountered as plaque formation either as a localized mass or diffusely spread over the peritoneum.

Radiologic diagnosis of calcific meconium peritonitis is easily made. Extensive calcifications along the peritoneal reflections extending from the diaphragm and along the lateral walls of the abdomen into the pelvic cavity are encountered. Calcification extending into the scrotum is pathognomonic of meconium peritonitis.[3] In acute cases, mechanical small bowel obstruction is present which is no different from other causes, except that any associated calcific plaques give a clue to meconium peritonitis.

However, when meconium peritonitis presents as a localized calcific mass in the abdomen of an infant, several possibilities have to be established. Neuroblastoma, hemangioma of the liver or spleen, calcified enteric or mesenteric cysts, and dermoid and teratoma growths are the major entities to be differentiated.

A lateral view of the abdomen generally helps in locating the calcific mass; posterior location of the mass generally indicates neuroblastoma. Other imaging modalities do not play a significant role in the diagnosis. The location and distribution of the calcification give a clue to the correct diagnosis in a proper clinical setting. Although calcifications may disappear spontaneously, surgical intervention is often necessary.

Diagnosis

Calcific meconium peritonitis

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Contact lenses now worn by millions in America

How about contact lenses?

Millions of Americans are now using the small devices that are fitted directly onto the eyeball to help the wearer see better without spectacles.

The contacts come in both hard and soft varieties. They are single vision and bifocal. There are different sizes, shapes, forms, and colors.

To help physicians who aren't eye specialists understand contact lenses and be better able to discuss them with their patients, the July 10 Journal of the American Medical Association published a report telling about contacts and what they can and cannot do.

The miraculous piece of plastic called a contact lens is a mixed blessing, writes Frank J. Weinstock, M.D., of Aultman Hospital, Canton, Ohio, and Ohio State University, Columbus.

The contacts have amazing capabilities to provide superior vision, to restore vision, and also to destroy vision if fit or used improperly, Dr. Weinstock declares.

The real trick to contact lenses is proper fitting, and this can be quite difficult sometimes, he pointed out.

"Ideally, all contact lenses should be fitted by and followed up in an ophthalmologist's office or under the ophthalmologist's supervision to avoid complications and to treat them if they occur. The ophthalmologist's input is essential in avoiding important medical conditions being misinterpreted by a technician as a contact lenses problem."

In general, Dr. Weinstock says, if patients can get along reasonably well without glasses and have only minor vision errors, they do poorly with contact lenses and should not wear them.

The majority of contact lenses are still the hard type of plastic. In general, the more rigid lenses may give a sharper vision, especially with astigmatism or irregular corneas. They also last long and are less expensive. The softer lenses may be more comfortable, but they do not correct astigmatism as well as hard lenses do. They have a shorter life span and cost more.

All contact lenses sit on the cornea and replace spectacles for refraction of light, thereby providing a more natural form of vision, without needing to wear glasses and put up with fogging of spectacle lenses in cool weather.

The majority of contact lenses are fitted for cosmetic reasons, Dr. Weinstock declares. But they do provide a better vision than spectacles for certain types of eye conditions.

Contacts are favored by individuals working in television or in show business who cannot wear spectacles while working. Politicians, including President Reagan, wear contacts to enhance their appearance in public.

Athletes are favorite users of contacts, particularly in contact sports such as football, soccer, and basketball. In sports such as tennis, handball, and racquetball, players wearing contacts should wear eye guards to prevent injuries if struck in the eye by the ball.

The positive psychological impact of contact lenses can be significant by eliminating the need for thick glasses in self-conscious teenagers or adults, he points out.

Various types of hard bifocal contacts are now available. They are more complicated and more expensive, as well as more difficult to fit. Soft contact lenses may be tolerated better and are more difficult to dislodge and pop out, especially by athletes. The soft lenses require frequent careful cleaning and are more difficult to maintain than hard lenses.

Contact lenses, Dr. Weinstock concludes, have achieved new dimensions that apply to all age groups. They are not for everyone. For success, the appropriate lens must be correctly fitted, and the patient should be followed up carefully by properly trained persons.

Hemorrhagic Bullae Associated with Salmonella Septicemia

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Hemorrhagic bullae in association with gram-negative septicemia have been described in gonococcemia,[1] meningococcemia,[2] and in septicemia with *Pseudomonas aeruginosa*,[3,4] *Escherichia coli*,[5,6] and *Klebsiella*.[7] We present two cases of patients with *Salmonella enteritidis typhimurium* septicemia who developed hemorrhagic bullae, an association not previously reported in the literature.

Case reports

Case 1. A 57-year-old woman with Laennec's cirrhosis, chronic renal failure secondary to membranous glomerulonephritis, and hypertension had been treated with peritoneal and hemodialysis at CPMC (Columbia-Presbyterian Medical Center). Her medical problems included a hiatal hernia, cholelithiasis, and portal hypertension complicated by ascites and esophageal varices, and she had a long history of heroin abuse and alcoholism. The patient had had multiple hospital admissions for uremia, treated by dialysis, and for upper gastrointestinal hemorrhage, treated by transfusions and cimetidine.

She was admitted to CPMC for hematemesis, abdominal pain, and hypotension. Her abdomen was chronically and massively distended by ascites. Two umbilical hernias, each 5 cm. in diameter, nontender and easily reducible, protruded through the midline rectus sheath.

Endoscopy revealed esophageal varices, esophagitis, and gastritis. Abdominal paracentesis fluid contained 3,200 white blood cells per cubic centimeter (71 percent polymorphonuclear and 29 percent mononuclear cells), 1,100 red blood cells per cubic centimeter. Results of Gram's stain of the peritoneal fluid were negative for bacteria.

Cefazolin sodium and tobramycin therapy was begun on admission and clindamycin was later added. Less than 24 hours after admission she had a cardiorespiratory arrest and remained comatose following resuscitation.

Two blood cultures obtained on admission to the

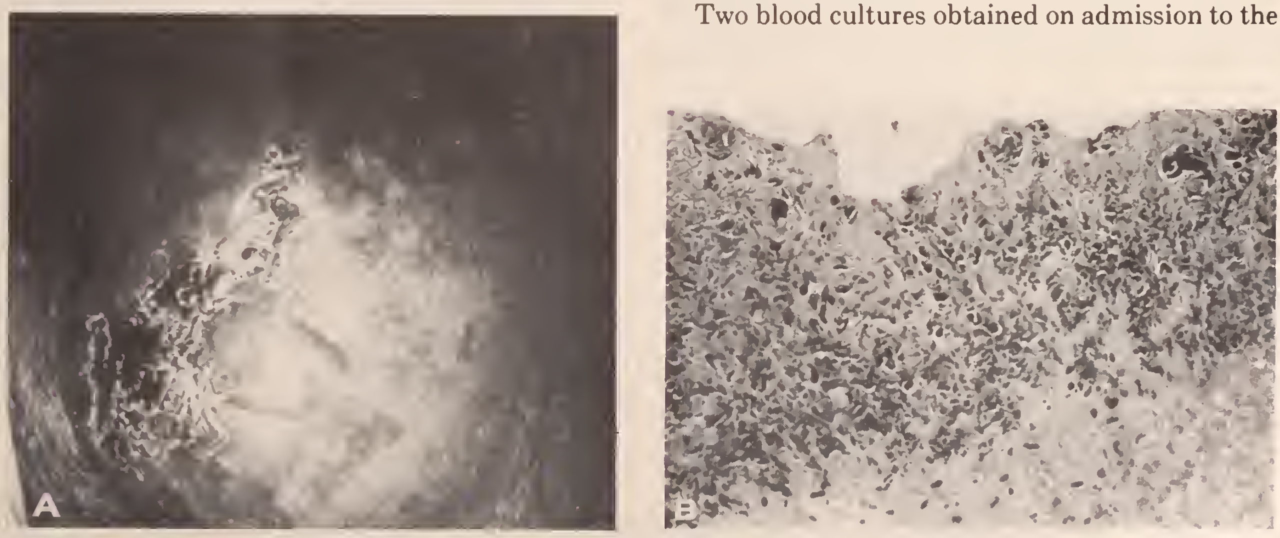

FIGURE 1. (A) Hemorrhagic cutaneous bulla with purpuric base overlying a hernia. (B) Biopsy of bullous lesion. Epidermis has separated from dermis and is not shown. Dermis contains sparse mononuclear cell infiltrate and numerous extravasated erythrocytes (original magnification × 100).

hospital grew *Salmonella enteritidis typhimurium*, sensitive to ampicillin and chloramphenicol. All antibiotics were discontinued and ampicillin therapy was begun. Approximately 24 hours after the blood cultures had been drawn, skin lesions were noted overlying the umbilical hernias. Cutaneous examination revealed flaccid bullae, some filled with straw-colored fluid and others with hemorrhagic fluid on purpuric bases. Areas of black eschar formation were seen within the purpura. These cutaneous changes were confined to the area overlying the abdominal wall herniae (Fig. 1A).

No organisms were seen on Gram's stain of the blister fluid. Cultures of the blister fluid, peritoneal fluid, and stool, obtained while the patient was on antibiotic therapy, were sterile. Repeat blood cultures taken one, two, and four days after the institution of antibiotic therapy were sterile. Serum for indirect immunofluorescence was negative for intercellular and basement membrane antibodies.

The skin biopsy of a portion of a bulla revealed separation of the dermis and epidermis (Fig. 1B). The epidermis was flattened with loss of the normal rete ridge pattern. There was no evidence of necrotic keratinocytes. The dermis showed a sparse, predominantly mononuclear infiltrate with marked extravasation of erythrocytes. The connective tissue was altered. There was loss of the normal collagen pattern; the walls of arterioles were hyalinized and some were occluded by thrombi. There was no evidence of vasculitis. Tissue Gram's stain was negative for intracellular gram-negative bacteria.

The patient died of a cardiac arrest on the seventh hospital day. Permission for autopsy was denied.

Case 2. A 16-year-old girl developed anemia and arthritis at age five. At age 13 she was diagnosed as having systemic LE (lupus erythematosus) on the basis of positive LE preparation, diffuse polyserositis, migratory polyarthralgias, and fever. She was treated with prednisone for a year, but had an equivocal response with persistence of the arthralgias and fever. She had multiple hospital admissions for epistaxis and pulmonary infiltrates and was treated with isoniazid and para-aminosalicylic acid even though mycobacteria were never isolated from her sputum specimens. Her final admission was for vasculitis of the hands and fevers to 102°F. She was treated with prednisone, isoniazid, and penicillin when blood cultures were found to be growing *Salmonella enteritidis typhimurium*, sensitive to amicillin and chloramphenicol. The therapy was changed to chloramphenicol intravenously for two weeks. She remained in the hospital over the next two months and received a course of 6-mercaptopurine. She devloped a new fever to 102.6° F. and had large bullae develop on the right lateral buttock. Aspiration of these yielded a brown-colored material that grew *Salmonella typhimurium*, as did her blood. These areas progressed to large areas of necrosis and abscess formation. In spite of therapy with ampicillin the lesions did not heal and she die two weeks later.

Blood cultures at time of death grew no organisms. Autopsy showed her lungs were filled with cryptococci and that she had chronic cholecystitis and cholelithiasis. Cultures were not taken of the gallbladder, but cultures of other organs failed to grow Salmonella.

Comment

The skin lesions most commonly described in patients with Salmonella sepsis are "rose spots," classically seen with *Salmonella typhi.*[8] Other cutaneous manifestations include erythema nodosum,[9,10] erythema typhosum, and urticaria.[10] However, skin lesions in bacteremia with nontyphoidal Salmonella species such as those that now belong to *S. enteritidis* are rarely described in the literature.[11–14]

Most cases of reported superficial skin infection (that is, pustules) secondary to nontyphoid Salmonella are related to direct skin contact with Salmonella from an exogenous source.[12,15–17]

Fujimura and Hoshi[15] described "boils" that appeared on one arm of a veterinarian one day after he had delivered a mare with paratyphoid fever caused by *Salmonella abortus equi.* This organism was also isolated from the veterinarian's "boils." Similar cases of cutaneous pustules secondary to localized infection of veterinarians' skin by Salmonella organisms have been reported with *Salmonella emek*[16] and *Salmonella dublin.*[17] In 1955, Lundstrom[12] described a one-week-old infant with yellowish-gray pustules in the axillae, born to a mother with gastroenteritis. *Salmonella rostock* was isolated from the feces of both the mother and child and from the contents of the child's pustules.

Suppurative soft-tissue abscesses occurring as a localized infection due to Salmonella are uncommon. Abscesses were reported in 0 to 1.7 percent of patients with various Salmonella infections.[11] The pathogenesis of the cutaneous abscess was thought to be due to localized infection from stool in the case of a perineal abscess that grew *Salmonella tennessee.*[18]

Other reported abscesses and ulcerations due to nontyphoidal Salmonella were probably related to episodes of bacteremia. Carswell and Magrath[19] described a patient whose skin ulceration grew *S. dublin* on culture. Undetected bacteremia was postulated as the source of the abscess in this case, as well as in reports by Black, Kunz, and Swartz[18] and Bran.[13]

Black, Kunz, and Swartz[18] described a patient who grew *Salmonella heidelberg* from stool, urine, blood, and skin abscesses as well as from skin pustules. This represents the only patient in whom a well-documented skin infection secondary to bacteremia has been described with a nontyphoidal Salmonella species.

In our first patient, the close temporal relationship between *S. typhimurium* bacteremia and the development of hemorrhagic bullae suggests cause and effect. This infection could have been endogenous from an undetected source, such as gallstones, or it could have been acquired exogenously from hospital personnel, or during hemodialysis.[20] The diseases specifically predisposing to salmonellosis (malaria, bartonellosis, sickle cell anemia, and louse-borne relapsing fever) were not present. The localization of bullae to the skin overlying the umbilical herniae may be due to the compromised blood flow in a distal area. Instances have been reported in the literature of localization of Salmonella to sites of preexisting disease (such as hematoma, an area of infarction, or a neoplasm) after episodes of bacteremia.[11,14,18] Indeed, in the second case, trauma to the buttock and development of hematoma probably provided the site for the bullae formation.

The bullous skin lesion may be directly due to septicemia. We were unable to demonstrate the organisms in the skin lesions by Gram's stain, by culture of the blister fluid, or by tissue Gram's stain. Other investigators have had difficulty in demonstrating the implicated gram-negative organisms in the rose spots of Salmonella[21] and in the bullous lesions of gonococcemia.[1,22] On the other hand, gram-negative bacilli were readily identified in skin lesions of meningococcemia[2] and in Pseudomonas sepsis.[3,4]

The absence of viable organisms in the subepidermal bullae in association with *S. typhimurium* septicemia while the patient was being treated with antibiotics suggests that bacterial endotoxin was responsible for the development of the skin lesions by a local Schwartzman reaction. The difference in the incidence of purpuric bullous skin lesions in Salmonella septicemia compared with the incidence in other gram-negative septicemias is probably related to differences in the endotoxins involved.

The association of purpuric subepidermal bullae with *S. typhimurium* septicemia has not been described previously. The lack of circulating intercellular and basement membrane antibodies, the histopathologic findings on skin biopsy, the lack of mucous membrane involvement and target lesions, and the acute onset of the skin lesions make the diagnosis of other subepidermal bullous diseases unlikely. A drug eruption is difficult to exclude, and therapy with cefazolin sodium, tobramycin, and clindamycin was begun just prior to the appearance of the skin lesions. However, we are not aware of any reported cases of bullous eruptions caused by these drugs.

Conclusion

In conclusion, it is important to recognize purpuric subepidermal bullae as a cutaneous manifestation of gram-negative sepsis. Culture and Gram's stain of blister fluid along with a biopsy of the lesion should be performed, although efforts to find the organism may prove unsuccessful. *Salmonella typhimurium* should be added to the list of gram-negative bacteria that cause hemorrhagic bullae.

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Acknowledgment. The authors wish to thank the medical house staff who cared for the patients.

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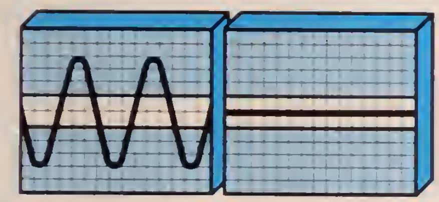

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continued from page 1596

casos de meningitis in pueros minus que 17 annos, durante le periodo inter 1973 e 1978, ha permitite observar un cambio significative in le agentes bacteriologic del meningitis in le etate temprane del vita. Le *Streptococcus* Gruppo B (SGB)—59 pro cento; bacilli Gramnegative (BGN)—25 pro cento; *Haemophilus influenzae* typo B (HIB)—9 pro cento; *Neisseria meningitidis* (NM)—3 pro cento, e *Streptococcus pneumoniae* (SP)—3 pro cento esseva le causa del meningitis in le prime mense del vita. In le seconde mense del vita, le HIB (33 pro cento), le SP (25 pro cento), le NM (25 pro cento) e le SGB (17 pro cento) esseva le agentes etiologic del meningitis. Le BGN non esseva isolate. Le SGB (33 pro cento) continuava como le causa principal del meningitis in le tertie mense del vita, juncto con le HIB (33.3 pro cento) e le SP (33.3 pro cento). Le HIB (73 pro cento), le SP (14 pro cento) e le NM (13 pro cento) esseva le sol bacteria isolate depost le tertie mense del vita. Iste information documenta 2 cambios importante in le vita: (1) le HIB es devinente le plus commun causa del meningitis in le prime mense del vita; (2) le GNB non es ora un causa significative del meningitis in le secunde mense del vita. Basate in iste ultime information, le ampicillina e le chloromycetina es considerate como le tractamento antibiotic plus appropriate per le therapia initial del meningitis in pueros de plus que un mense de vita. Plus studios es necessitate pro determinar le efficatia del combination antibiotic mentionate contra le SGB que persiste como le problema major durante le tertie mense del vita.

Bevelaqua, F. A., Kamelhar, D. A., Campion, J., e Christianson, L. C.: *Mycobacterium fortuitum-chelonei;* duo (2) patientes con infection pulmonari fatal, **New York State J. Med. 81:** 1621 (Octobre) 1981.

Le Mycobacteria del complexo *fortuitum-chelonei*, quando es trovate in le expectoration, es generalmente un saprophyto colonisante. Ben que le morbo pulmonari debite a iste microorganismo es observate, generalmente es asymptomatic e plus frequentemente es associate con le aspiration chronic in patientes con megaesophagus. Le duo casos presentate in iste articulo demonstra que un morbo pulmonari progressive e non respondente al chimiotherapia pote esser causate per iste gruppo de bacteria. Iste casos etiam sirve pro emphatisar le necessitate de disveloppar guidas effective pro differentiar le colonisation saprophytic del morbo pulmonari progressive.

Patel, N. P., Ward, J. N., Fernandes, M., e Lavengood, R. W.: Carcinoma del pelvis renal, **New York State J. Med. 81:** 1625 (Octobre) 1981.

Le casos clinic de 30 patientes con carcinoma probate del pelvis renal es revistite. In 15 patientes, le tumor extendeva se foras del ren o del pelvis renal (Gruppo IV) al tempore del diagnose. Le superviventia total esseva pauvre e relationate con le grado e stadio del tumor. Le patientes con tumor in stadio o grado leve habeva un superviventia melior que illes con lesiones anaplastic infiltrative. In iste ultime casos, le prognose esseva pauvre. Le curso natural del morbo e le resultatos therapeutic es discutite. Un patiente con carcinoma squamocellulari probate del pelvis renal que superviveva 8 annos depost del nephrectomia, con excision de un sol metastase pulmonari, es presentate.

Translated by Eduardo I. Juliet, M.D.

Transvenous Filter for Pulmonary Embolism

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Pulmonary embolism ranks high in incidence and in a ten-year autopsy study, Coon and Coller,[1] and Coon[2] reported significant pulmonary emboli in the range of 7 to 9 percent of patients. It is estimated that in the United States about 300,000 patients suffer from nonmassive pulmonary emboli, and that 100,000 will succumb from it. Because of such high incidence, pulmonary embolism is considered the third most common cause of death in the United States. It has also been estimated that in patients who survive one pulmonary embolism, a similar episode may reoccur in 31 percent, and in 18 percent it may be fatal.

Direct relationship between deep venous thrombosis and pulmonary embolism is well known especially when associated with surgical trauma and past history of venous thrombosis. The studies of Barker et al.[3] and Kakkar[4] pertinent to the above mentioned cause and effect are well documented.

In the development of thromboembolic disease and pulmonary embolism, besides obesity, age, cardiac disease, and venous stasis, a major role is played by trauma and by surgery. It has been suggested that 50 percent of venous thrombosis develops either in the operating room, or in the immediate postoperative course.[5] A recent report describes an increased uptake of I fibrinogen indicating unsuspected thrombi of the leg vein in postoperative cases complicated by infection.[6]

Of interest is the study of Coon[2] who reported on pulmonary embolism in trauma; in about 5 percent of patients it occurs in head and chest injuries; in about 14 percent in spinal injuries; and the greatest incidence, about 45 to 60 percent, occurs in tibial and hip fractures. Müller and Blaeser[7] reported eight cases of fatal pulmonary episodes in one year due to direct trauma to the subclavian vein.

An increasing interest in recent years in the prevention and management of pulmonary embolism has prompted us to report a recent experience of massive pulmonary embolus which occurred in one of our patients three weeks following surgery.

Case report

A 55-year-old Caucasian female was admitted to the hospital with a chief complaint of shortness of breath. Three weeks prior to her present admission she underwent the repair of a ventral hernia and had an uneventful recovery. She was well until two days before surgery, when a private physician advised admission for investigation of the above complaint.

Her past history, with the exception of the recent surgery, was not pertinent. She had had bilateral cataract surgery and an ovarian cystectomy. At present, she was being treated for hypothyroidism and diabetes mellitus.

On her admission, laboratory data was as follows: hemoglobin 11.8 Gm., hematocrit 36, white blood cell count 8,000, stabs 4, neutrophils 60, lymphocytes 27, eosinophils 5, and platelet count 148,000; fasting blood sugar 306 mg. per 100 ml., carbon dioxide 29, chlorine 103, sodium 142, potassium 3.4, prothrombin time 15.7 sec. control 12.8 sec., and partial prothrombin time 44.9 sec. control 44.3; serum glutamic oxaloacetic transaminase 21, lactic dehydrogenase 424 (which on repeated studies during her present hospital stay remained elevated), and alkaline phosphatase 95; total bilirubin 1.2 mg. per 100 ml., total protein 6.5 Gm. per 100 ml., cholesterol 212 mg. per 100 ml., uric acid 3.3 mg. per 100 ml., blood urea nitrogen 13 mg. per 100 ml., and calcium 8.3 mg. per 100 ml. The findings on arterial blood gas analysis were as follows: pH 7.42, partial alveolar oxygen pressure 57 mm. Hg, partial alveolar carbon dioxide pressure 30 mm. Hg; serum acid base deficit 19 mEq. per liter, and the oxygen saturation was 88 percent. Findings on the thyroid function profile were normal. The electrocardiogram showed sinus tachycardia, left anterior hemiblock, and premature ventricular contractions (Fig. 1). Chest x-ray film demonstrated no gross abnormalities (Fig. 2).

Physical examination revealed an obese woman somewhat apprehensive and in moderate physical distress; temperature 99.8°, pulse 100, and respiration 24. The lungs were clear and the neck veins were flat. The heart revealed no abnormalities. Abdominal examination demonstrated a fresh, swollen, erythematous, left lower abdominal incision, that extended below the inguinal ligament and was tender to pressure. Massive edema of the left thigh with increased heat on palpation was also noted. Femoral pulses were present bilaterally, though somewhat diminished on the left.

On the basis of these findings, a clinical diagnosis of ileofemoral vein thrombosis was made. The patient was started on continuous intravenous heparin regimen (40,000 units daily), delivered via a pump and adjusted by daily partial prothrombin time

Pulmonary scanning was done, revealing total absence of perfusion of right pulmonary artery. This

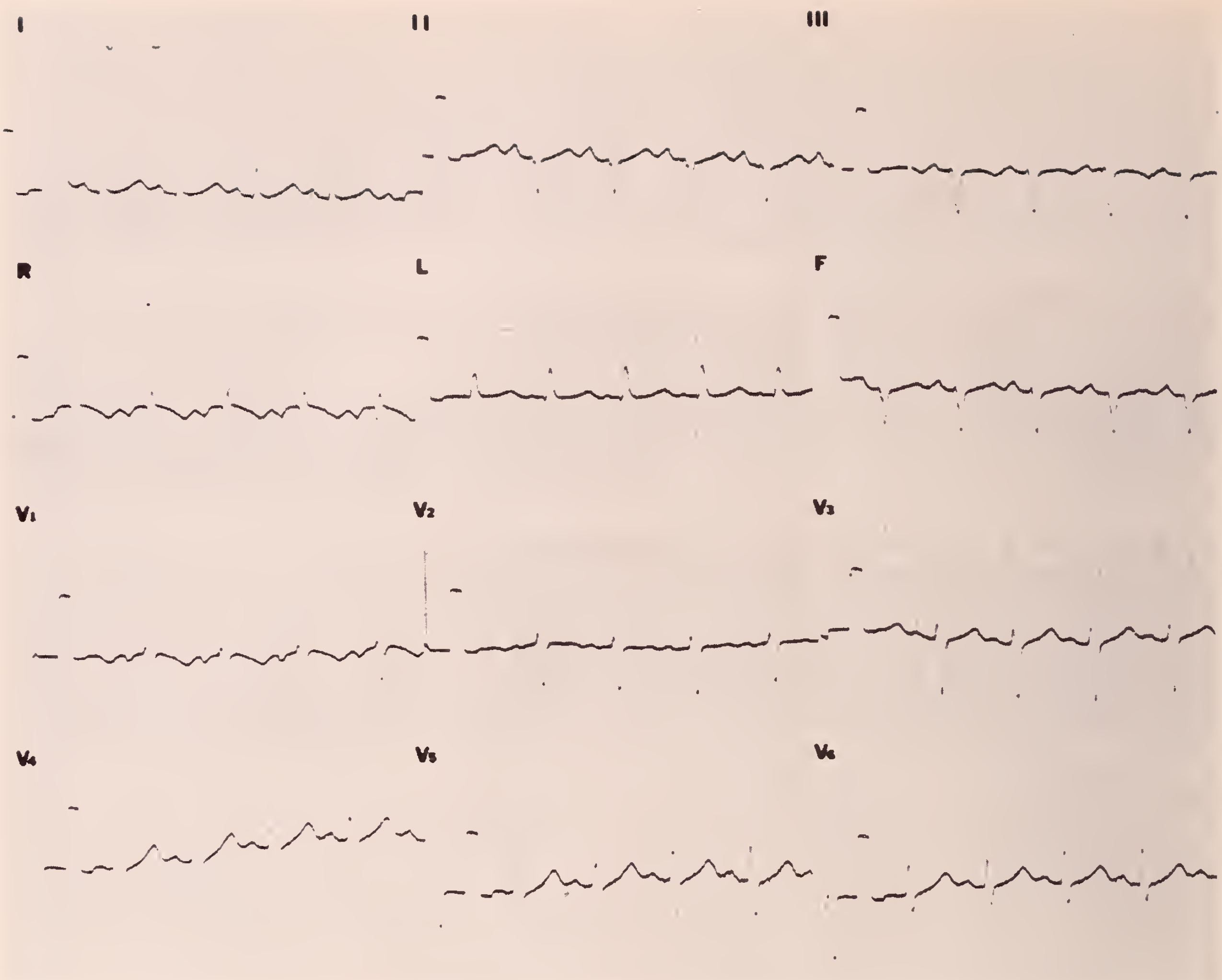


FIGURE 1. Electrocardiogram shows sinus tachycardia, left anterior hemiblock, and premature ventricular contraction.

was followed by pulmonary angiography to confirm the defect of pulmonary artery, establishing the diagnosis of major pulmonary embolism of the right lung (Fig. 3). The patient was transferred to the intensive care unit and full monitoring was instituted. Subsequently, she was brought to the operating room and, under local anesthesia with fluoroscopic guidance, a vena cava filter was inserted into the vena cava utilizing the right internal jugular vein access. An inferior venocavogram performed thereafter revealed an umbrella filter in the right common iliac vein (Fig. 4). In view of the fact that the thrombus was in the left common iliac vein, such location was obviously considered unsatisfactory (Fig. 5). The patient was returned to the operating room and a second filter was implanted via the same route into the inferior vena cava in the infrarenal position (Fig. 6). Postoperatively, the patient was continued on heparin until she improved, and then started on warfarin sodium. Since implantation of a Mobin-Uddin prosthesis, the patient has recovered fully, remained free of embolism, and has resumed her daily occupation. More than two years have elapsed since the initial bout of pulmonary embolism; findings on a pulmonary angiogram and a lung scan taken recently demonstrated almost complete resolution of the embolus (Fig. 7). There has been no evidence of venous stasis sequelae or post-thrombotic syndrome.

Comment

Since Virchow, circa 100 years ago, introduced the concept of thromboembolism and its relationship to pulmonary embolism, the management and prevention of such catastrophe is surrounded by controversy and debate. Spencer Wells in 1866, and Hegar in 1869, reported their first fatal postoperative pulmonary embolism. Wells' report was the result of a surgical procedure of the ovary and Hegar's report followed a vaginal hysterectomy.[8]

The spectrum of pulmonary embolism and its immediate sequelae is ever present in thromboembolic disease. Data reveal that in a series of 271 patients reported by Donaldson et al.,[9] and quoted by Cross and Mowlem,[10] 181 patients were moribund in 20 minutes and 22 were dead within one hour, while some of the remaining group survived for two hours, and others for six hours.

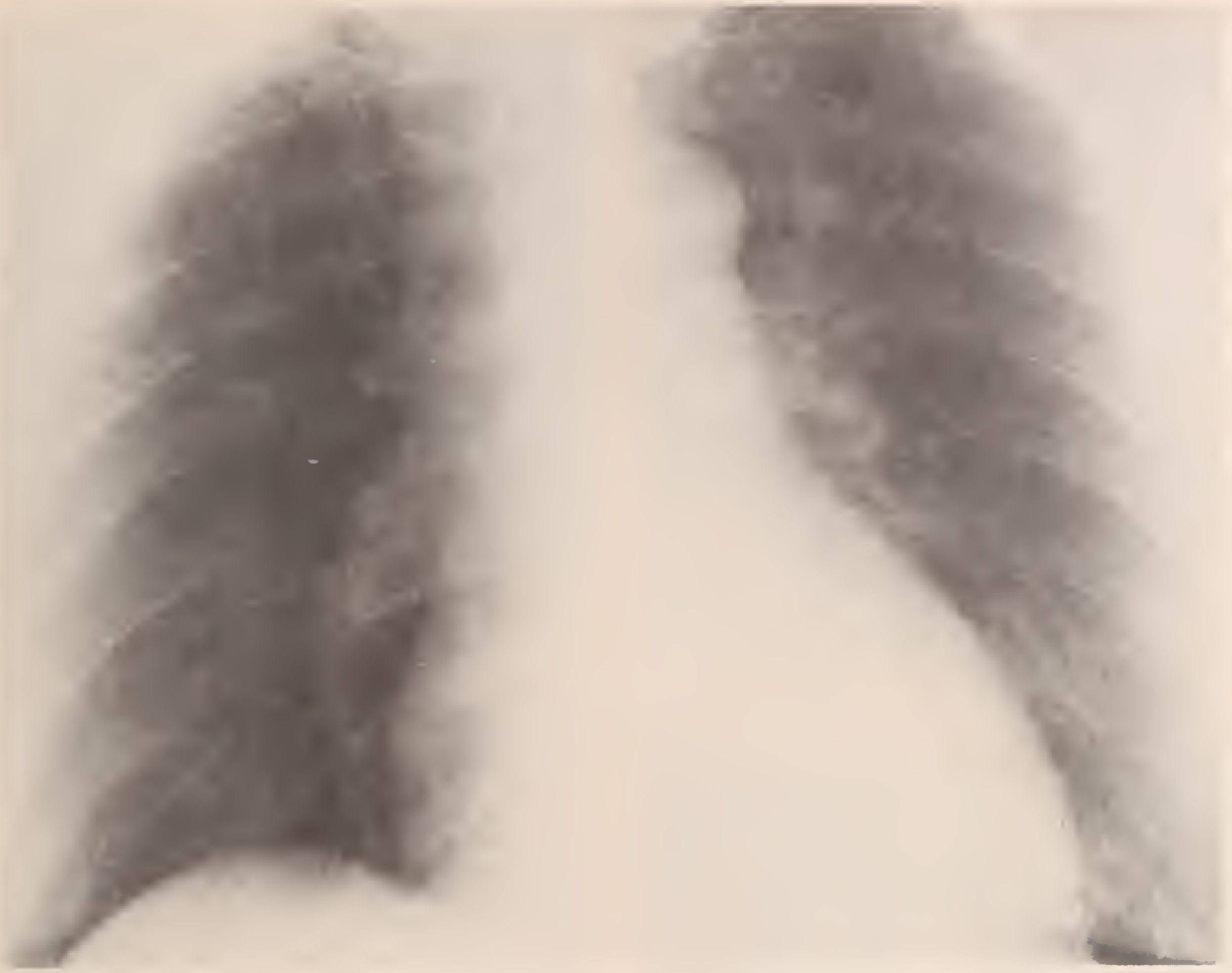


FIGURE 2. Chest x-ray film demonstrates no gross abnormality involving heart or lungs.

Venous thrombolism associated with pulmonary embolization has shown a dramatic increase and continues to be a major threat to life. Such increase is attributed to better diagnostic procedures such as the Doppler flowmeter, plethysmography (electrical or mechanical); ^{125}I fibrinogen, radionucleide venography, ultrasound, ventilation-perfusion scanning of the lungs, and angiography, and also to a real increase in numbers due to greater number of cases of trauma.

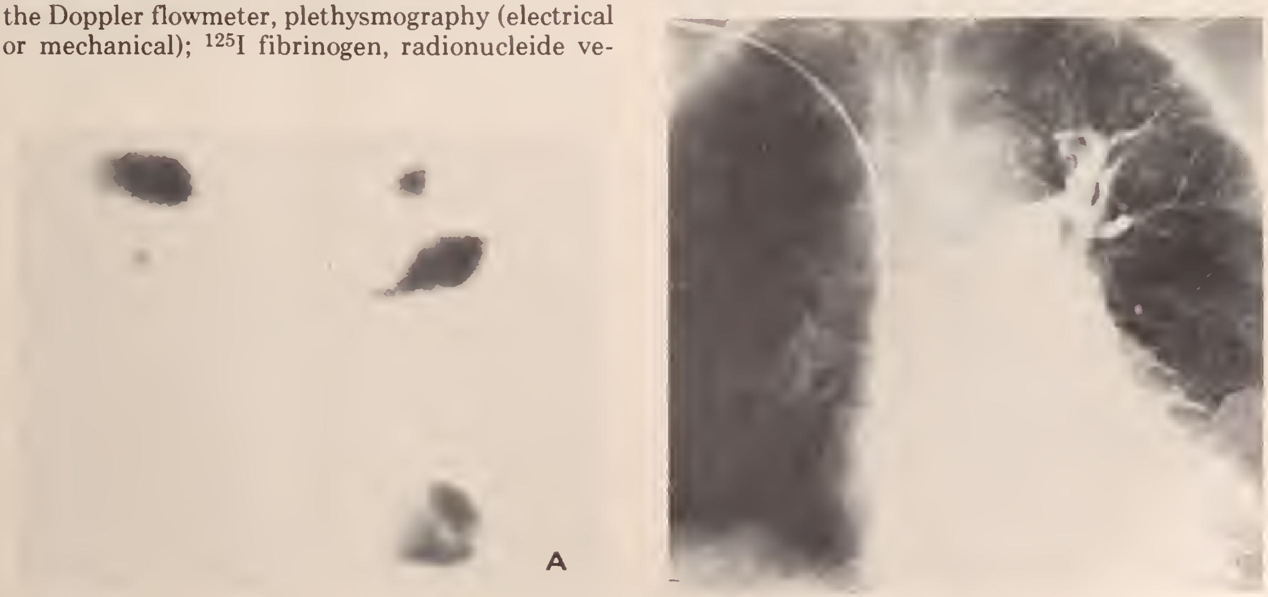


FIGURE 3. (A) Pulmonary scanning demonstrates perfusion defect right lung. (B) Pulmonary angiogram reveals cut-off of entire pulmonary artery.

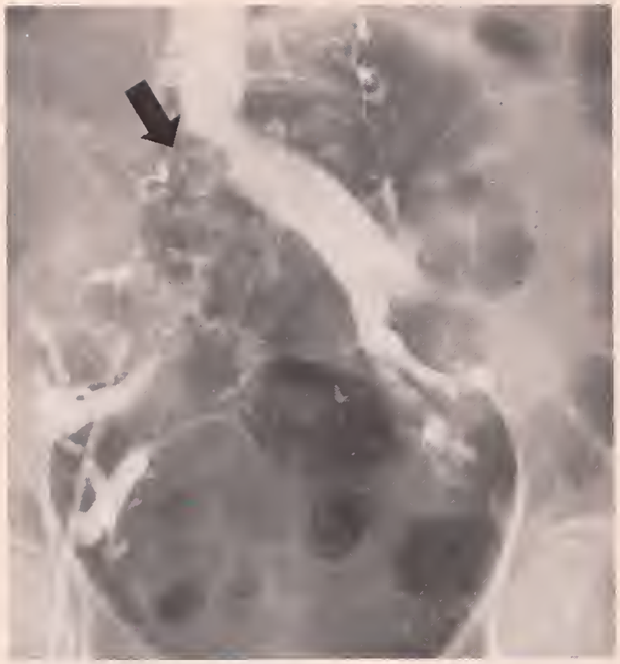


FIGURE 4. Inferior venocavogram shows Mobin-Uddin umbrella in right common iliac vein (arrow).

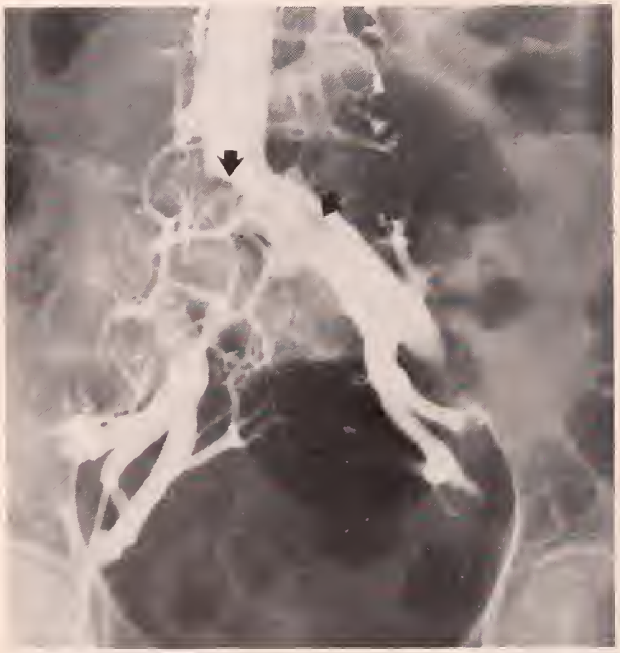


FIGURE 5. Inferior venocavogram shows thrombus in left common iliac vein (arrow).

In cases in which pulmonary embolization is either highly suspected or diagnosed, definite therapy should be instituted as soon as possible. Whether or not surgical or medical management should be initiated is still debatable and at times the indication for either mode of therapy is not strictly defined. Suffice it to say that for some authors,[11–16] the preferred method of treatment is high-dose intravenous heparin, in the range of 80,000 to 100,000 U.S.P. units in the first 24-hour period. Others have reported cases of recurrent embolization despite adequate anticoagulation regimen.[17–19] On the other hand, still other authors have warned that anticoagulants considered effective in the prevention of the formation of thrombus have no merit in resolving an already formed clot that can be dislodged and migrate in the lung.[20–22] The debate becomes more vigorous when there exists contraindication to anticoagulation, as in complicated bleeding diathesis, in trauma cases, in postoperative cases, in postoperative cases in which an additional surgical procedure is required, or finally, when heparin therapy is only partially effective. It has been estimated that overall anticoagulant therapy is contraindicated in 10 percent of the patients,[23] and for this group some kind of venous interruption is mandatory.

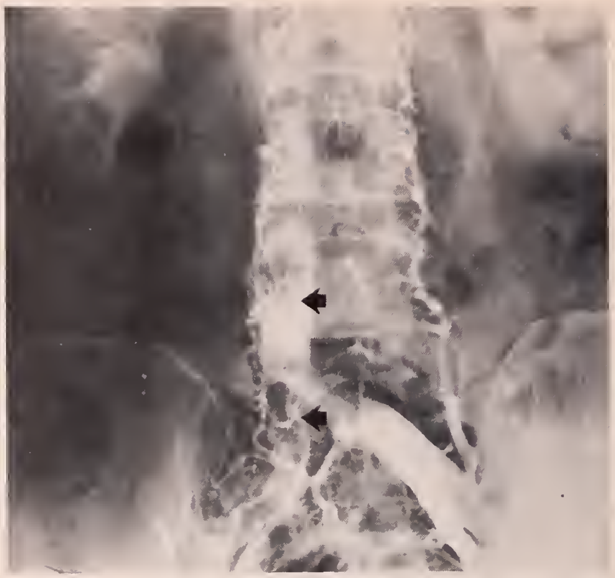
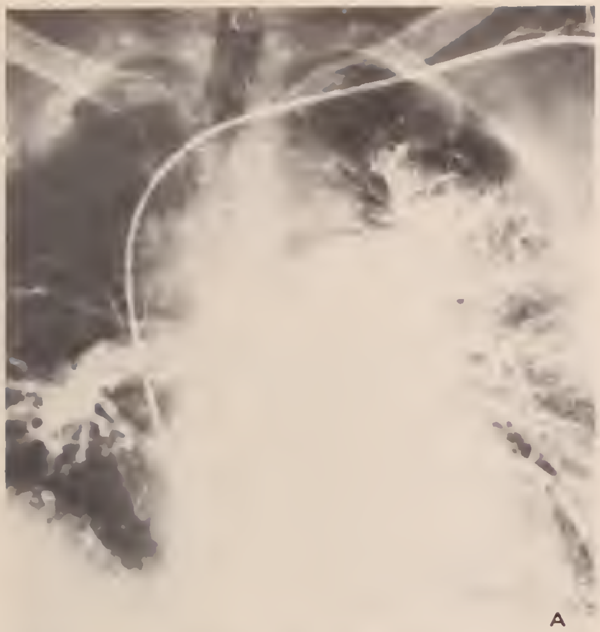


FIGURE 6. Inferior venocavogram shows second umbrella implanted in infra-renal inferior vena cava (arrow). Collateral circulation noted.

Since Homans[24] in 1934 introduced the concept of venous ligation, a variety of surgical procedures has been advocated to prevent and treat pulmonary embolization. Examples which come to mind are superficial femoral vein ligation, inferior vena cava ligation, Trendelenburg surgical procedures, and finally, pulmonary embolectomy using the pump oxygenator. It is agreed that either superficial or common femoral vein ligation is not an effective measure of preventing pulmonary embolism, since it has been established that 50 percent of fatal emboli originate in the pelvis and, therefore, are proximal to this type of ligation.[25–27] This procedure was therefore abandoned and another one was introduced; we are referring to surgical ligation of inferior vena cava in prevention of pulmonary embolism. This was first performed successfully in Italy by Bottini in 1893. Recently, its popularity has markedly decreased because it often causes severe stasis changes of the lower extremity.[28–31] In addition, it is accompanied by recurrent pulmonary embolism in as many as 50 percent of cases.[19] The recurrent



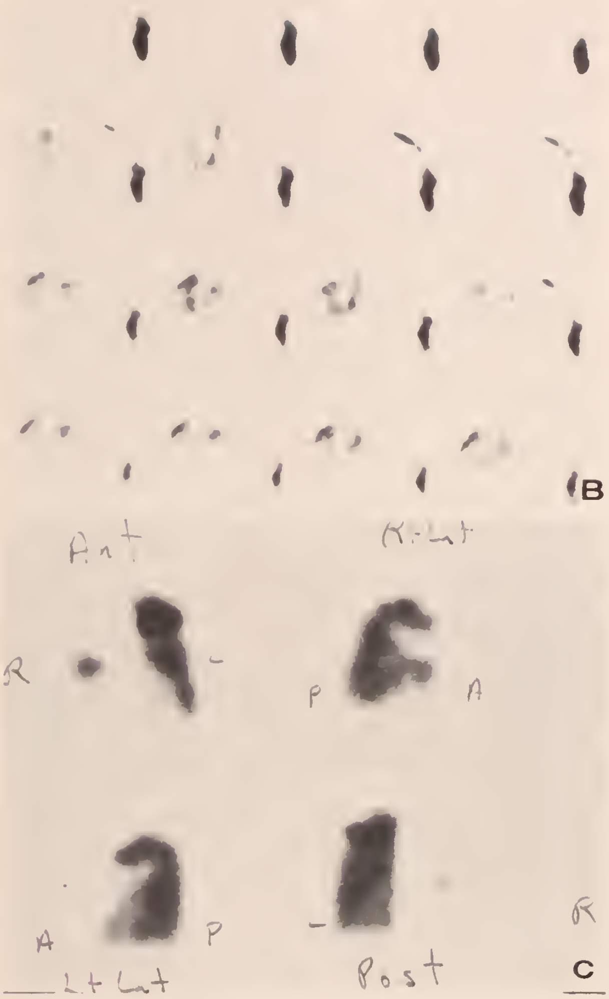


FIGURE 7. (A) Pulmonary angiogram showing improvement of pulmonary circulation. (B) Sequential perfusion scanning showing almost complete resolution of pulmonary embolism. (C). Lung scan. Overall pattern of beginning reaeration of right lung indicating resolution of pulmonary infarct.

embolization may occur through numerous venous channels that develop after inferior vena ligation. The ascending lumbar veins, the vertebral veins, the ovarian veins, and the ureteral veins are among some of these channels.[28,32]

Such generous collateralization may be documented two weeks after ligation.[33] Embolization may originate ex novo from the cul-de-sac above the caval ligation, especially when low ligation is performed and by the existence of either a left-sided vena cava[34]* or a double vena cava.[35,36]

Finally, acute hemodynamic changes and sudden death have been reported[37,38] Cazzaniga et al.[39] gathered 71 patients at the Peter Bent Brigham Hospital who underwent ligation of the inferior vena cava in a two-year period. Thirty-four percent of such patients developed a syndrome of hypotension and oliguria which occurred within 24 hours after surgery; eight of the patients who had heart disease developed acute renal failure and subsequently expired. It was postulated that either massive intravascular thrombosis below the ligation or sudden decrease of venous return to heart were responsible for the demise. The mortality rate from inferior vena cava ligation varies from series to series and it appears that there is direct relationship between previous heart disease and mortality rate. In the series of Nabseth and Moran,[40] the mortality rate was 12 percent in patients without heart disease, and 41 percent in those affected by cardiac disease. In other series,[41,42] the mortality rate reached 60 percent in patients with cardiac disease, and 32 percent in those without heart disease. Despite such high mortality rates,[22] the enthusiasm for such a procedure remains high.

Better results were not obtained when embolectomy was performed according to the Trendelenburg[43] and Valdoni[44] technique, or when either partial or total cardiopulmonary bypass was employed. The first successful pulmonary embolectomy was performed by Kirschner[45] in Europe in 1924, and in the United States by Steenburg et al. in 1958.[46] Sharp[47] in 1962, and two months later Cooley and Beall[48] reported their first successful pulmonary embolectomy utilizing the heart lung machine. Cross and Mowlem[10] reviewed 137 embolectomies performed by 62 surgeons; 115 were done under cardiopulmonary bypass, and the other 22 without cardiopulmonary bypass. Of the last group, 5 patients were operated on using the Trendelenburg technique, in 6 cases inflow occlusion was utilized, and in the last 11 cases unilateral embolectomy was performed. The overall operative mortality rate was 57 percent and it remained the same whether or not cardiopulmonary bypass was employed, although in the bypass group, the embolization was bilateral. In those patients where the operation was performed without bypass, the embolization was in only one pulmonary artery. Any surgical procedure associated with such an excessive mortality rate cannot be considered lightly.

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* Curtcher, R. R.: Discussion of paper written by James A. Kirtley, M.D., entitled "Indication and late results of ligation of inferior vena cava," Ann. Surg. 141: 663 (1955).

Therefore, as a new alternative in the management and prevention of pulmonary embolism and its recurrence, the use of intracaval devices such as string filter,[30] balloons,[49,50] and umbrella filters,[51,52] has been instituted. External clips, either smooth[53] or serrated,[54,55] or suture partitioning[56] of the inferior vena cava have also been utilized. All such devices have in common the mechanism of preventing passage of large emboli to the lung, and at the same time, the device permits adequate blood flow to avoid troublesome venous stasis in the lower extremities. Mobin-Uddin in 1968 introduced the umbrella filter which was inserted under local anesthesia through a small neck incision and engaged into the inferior vena cava below the renal vein. Since November, 1977,[57] 5,600 of such filters have been implanted. In January, 1977, a new 28-mm. filter was introduced, avoiding the complications of a filter migration or dislodgement,[58] recurrent pulmonary emboli,[59] perforation of duodenum and ureters,[60] and filter inversion[61] which occurred when the original 23-mm. filter was used.

In our case the umbrella lodged in the right common iliac vein when the stylet was released. Misplacement was corrected with the insertion of a second umbrella above the original umbrella resulting in no further complications (Fig. 6). There has been a 3 percent recurrent rate of embolization (fatal 0.8 percent) with the use of a new 28-mm. filter. Comparing this rate with others where only anticoagulation therapy has been used, Barker[62] revealed 78.6 percent in a group of 28 patients, and the national cooperative study* showed 18 percent (fatal 9 percent). Therefore, it becomes obvious that the use of a filtering device is very effective in preventing a high rate of recurrence of pulmonary embolism.

Review of the literature would appear to indicate that patients experiencing nonfatal pulmonary embolization may be managed with anticoagulant therapy only. In patients with major embolization, in addition to anticoagulants, the Mobin-Uddin filter appears to be useful in the prevention of recurrent embolization. Such a method is safe because it eliminates the risk of general anesthesia and a major surgical procedure.

Patients with acute massive pulmonary embolization can be saved only by using the pump oxygenator preceded by partial temporary cardiopulmonary bypass, which probably should be instituted at bedside.[63] Review of the literature also supports the concept that surgical interruption of inferior vena cava flow has been considered a less than satisfactory surgical procedure. It is of no avail in massive embolization and unnecessary in cases of simple embolization. In recurrent or major embolization, when there is an indication of interruption of the inferior vena cava flow, a transvenous implantation of an interrupting device is more desirable.

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Neonatal Hypothalamic Hypopituitarism and Liver Dysfunction

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The association of severe neonatal hypoglycemia with congenital hypopituitarism or aplasia of the pituitary gland and microphallus is well recognized.[1,2] However, the association of liver dysfunction with neonatal hypopituitarism has only been recently reported, and the causal nature of this relationship remains conjectural.[3] The purpose of this report is to describe two cases featuring this association and to review the pertinent literature.

Case reports

Case 1. A boy was born after 43 weeks of gestation to an 18-year-old gravida I para O mother by low forceps delivery. Birthweight was 3,870 Gm., length 54 cm., and head circumference 36.5 cm. Apgar scores were 7 at one minute and 9 at five minutes. Pertinent findings at birth were micrognathia with high arched palate and microphallus (stretch length less than 1 cm.). The immediate neonatal course was complicated by apnea, generalized seizures, hypoglycemia, and hypocalcemia. Because of severe apnea, the infant was transferred to the Eastern Oklahoma Perinatal Center where artificial ventilation was required for four days. On admission the blood glucose was 6 mg. per deciliter, requiring a dextrose infusion at a rate of 11 mg. per kilogram per minute to maintain normoglycemia. Eye ground examination revealed bilateral optic nerve hypoplasia. The endocrinology work-up produced the following results: insulin level during a hypoglycemic episode (blood glucose 16 mg. per deciliter) was 9 microunits; serum cortisol level varied on different occasions between 1 and 1.6 micrograms per deciliter. The concentrations of TSH (serum thyrotropin) and T_4 (thyroxine) were 1.4 microunits per milliliter and 5 micrograms per milliliter, respectively. No evidence of impairment of posterior pituitary function was found. While the patient was hypothyroid, a 200-microgram dose of thyrotropin-releasing hormone was administered intravenously. TSH, prolactin, and T_4 were serially measured[4] and showed a normal response. After thyroid replacement therapy was started and the patient was euthyroid, arginine, levodopa, and propranolol were employed to stimulate the release of GH (growth hormone). Neither caused the GH to increase above 3.3 ng. per milliliter.

On the third day of life the infant became jaundiced. At four weeks the stools were noticed to be of clay color and the liver became enlarged (3 to 4 cm. below the right costal margin). The direct reacting bilirubin fraction increased during the second week and peaked at age six weeks. At this time the total serum bilirubin level was 9.1 mg. per deciliter with a conjugated fraction of 5.3 mg. per deciliter. The SGOT (serum glutamic oxaloacetic transaminase) level was 120 I.U. per liter, SGPT (serum glutamic pyruvic transaminase) level 48 I.U. per liter, alkaline phosphatase level 381 I.U. per liter (normal 20 to 255 I.U. per liter), and LDH (lactic dehydrogenase) level 576 U. per liter (normal 290 to 500 U. per liter). The results of serum bile acid determinations by radioimmunoassay were as follows: cholylglycine 96.68 micromols per liter (normal less than 1 micromol per liter) and sulfated conjugates of lithocholate 4.9 micromols per liter (normal less than 1 micromol per liter).

Tests for hepatitis B antigen, serum alpha 1 antitrypsin, toxoplasmosis, syphilis, rubella, cytomegalovirus, and herpes simplex titers all gave negative results. The initial computed tomography brain scan showed a mild parasagittal intracranial bleeding which resolved in 10 days but was otherwise normal. Results of chromosome studies were normal. A needle liver biopsy performed at age one and one-half months showed normal lobular architecture with much bile stasis and focal areas of extramedullary hematopoiesis. No giant-cell transformation was seen, and there was paucity of bile ducts. The infant was started on a regimen of cortisone acetate, 20 mg. per square meter per day, and levothyroxine, 10 micrograms per kilogram orally every day at 12 days of age. The hypoglycemia subsided with replacement therapy but convulsions persisted requiring anticonvulsive medications. The patient did not receive GH replacement therapy. At age four months the patient's height and weight were at the fiftieth and seventy-fifth percentiles, respectively.

Case 2. A boy was born to a 36-year-old mother following a 37-week uncomplicated pregnancy and vaginal delivery. Birth weight was 2,540 Gm., and his neonatal course was uneventful. He remained in good health until three weeks of age when he had a seizure just prior to his 8 A.M. feeding. On arrival at Buffalo Children's Hospital, his blood glucose concentration was 12 mg. per deciliter, and he responded promptly to intravenous glucose. A detailed endocrine evaluation was not carried out during this hospitalization, and he was discharged on a regimen consisting of feeds every four hours.

At three months of age, he was readmitted because of jaundice and hepatomegaly. His total bilirubin was 7.3 mg. per deciliter of which 6.5 mg. was direct reacting. His SGOT and SGPT were 207 and 187 S.F. units, respectively (normal less than 25). Elevated serum Ig (immunoglobulin)M level of 176 mg. per deciliter was noted (normal 43 plus or minus 17), but both IgG (304 mg. per deciliter) and IgA (40 mg. per deciliter) levels were normal. Liver biopsy results were interpreted as giant cell hepatitis. Serology tests gave negative results for toxoplasmosis and cytomegalic inclusion disease. Sweat sodium was less than 20 mEq. per liter. Urine amino acid values were normal. Additional tests performed during this admission ruled out fructose intolerance, galactosemia, glycogen storage disease, and leucine sensitivity. He was treated with prednisone, 4 mg., twice daily, which was gradually discontinued after one month when all liver function tests had returned to normal. Measurements of plasma cortisol and growth hormone were not made during this hospitalization, and he was discharged on his former regimen of four-hour feeds because he had been found to have an occasional low fasting blood glucose (less than 40 mg. per deciliter). In the following two years, he had intermittent hypoglycemia, usually precipitated by infections, and all episodes were successfully treated with glucose infusions.

At two and one-half years of age, he had a generalized seizure with a febrile illness due to viral pharyngitis and gastroenteritis. His blood glucose concentration on this admission was 26 mg. per deciliter, and intravenous glucose improved his level of consciousness and terminated his seizures. During this third hospitalization, he was noted to be a short, well-proportioned boy with a high-pitched voice and babyish facies. His phallus was of normal size for age. Despite the past episodes of hypoglycemia, his neurodevelopmental test results were in the average range, and results of electroencephalogram were normal. He was 78 cm. tall (height age 14 months) and weighed 11.5 kg. (weight age 13 months). His bone age was six months, and skull x-ray showed a small but otherwise normal sella turcica. His peak GH response was less than 1 nanogram per milliliter, and his peak cortisol level less than 6 micrograms per deciliter during spontaneous hypoglycemia. Plasma insulin concentrations were all less than 5 microunits per milliliter during hypoglycemia. Serum T_4 was normal. The endocrine studies confirmed deficiencies of growth hormone and ACTH (adrenocorticotropic hormone).

His therapy from the time of diagnosis has consisted of growth hormone, 0.1 U. per kilogram, intramuscularly, three times weekly and cortisone acetate, 10 mg. per square meter body surface per day orally. At four years of age, he was found to have a low serum T_4 (3.4 micrograms per deciliter; normal 5 to 13.7) and low normal serum TSH (4 microunits per milliliter). Thyroid replacement (USP thyroid, 60 mg.) was added to the therapeutic program.

At his present chronologic age of 11 years, he is 133 cm. tall (tenth percentile) and weighs 28.6 kg. (tenth percentile). His bone age is 10 years and he is a slender, healthy prepubertal boy on physical examination. Throughout the past eight and one-half years of therapy, he has had normal fasting blood glucose concentrations. During bouts of childhood infections, he has received cortisone acetate, 60 mg. per square meter body surface per day orally or intramuscularly. Also, whenever he became ill with vomiting, he was admitted for a brief observation period and given intravenous glucose until oral intake was reestablished. Using these precautions, he has remained free of hypoglycemia or seizures. He is in the average range of intelligence and is a sixth-grade student.

Comment

The relationship between hypopituitarism and liver dysfunction first noticed by Herman, Baggenstoss, and Cloutier[3] remains unclear. Table I summarizes previous reported cases of this association including the present report.

Cases of neonatal hypopituitarism with or without liver dysfunction cannot be differentiated on the basis of birth weight, length, or gestational age. Microscopic examination of the liver (liver biopsy or autopsy material) has not been helpful. The histologic findings have shown either nonspecific cholestasis or a picture indistinguishable from that of idiopathic neonatal hepatitis. Known etiologic factors that cause neonatal hepatitis and/or cholestasis have been ruled out in most of the reported cases.

It has been suggested that liver dysfunction in neonatal hypopituitarism may be secondary to hormonal imbalance. Experimentally, hypophysectomy and/or thyroidectomy are known to reduce both bile volume and concentration of bilirubin.[5] In addition, corticosteroids have been reported to increase the enterohepatic circulation of bile salts.[6] However, liver dysfunction persisted in several of the cases reviewed here despite adequate cortisol and thyroid hormone replacement. Studies in the rat indicate that GH stimulates bile acid synthesis.[7] The demonstration in the serum of Case 1 of high levels of bile acids points to a defect in secretion rather than in synthesis. Replacement therapy in GH-deficient children has resulted in an increased micellar bile acid concentration of jejunal aspirates, suggesting increased hepatobiliary secretion of bile acids.[6]

The resolution of the liver dysfunction in Case 1 and in other patients without GH replacement therapy cast serious doubts on the causative role of this hormone. However, the possibility remains that the deficiency of growth hormone or other pituitary-related hormones may delay the maturation of hepatobiliary secretion function of the liver in early

TABLE I. Summary of cases reported by authors as referenced of neonatal hypothalamic hypopituitarism and liver dysfunction.

Findings	Mosier[8]	Johnson et al.[9] Case 1	Johnson et al.[9] Case 2	Herman, Baggenstoss, and Cloutier[3] Case 1	Herman, Baggenstoss, and Cloutier[3] Case 2	Lanes, et al.[10] Case 1	Lanes, et al.[10] Case 2	Drop, Colle, and Guyda[11] Case 1	Drop, Colle, and Guyda[11] Case 2	Present Report Case 1	Present Report Case 2
Birth weight (Gm.)	2,070	3,400	3,880	3,100	3,700	4,600	2,900	3,260	3,315	3,870	2,540
Gestational age (wks.)	...	41½	40	40	Term	45	33	Term	43	43	37
Birth length (cm.)	...	50	55	49.5	...	53	...	50	48	54	...
Hepatomegaly	...	...	...	+	+	...	+	+	...	+	+
Liver dysfunction											
Time appearance	...	Day 4	...	8 wks.	2–3 mo.	2 days	9 wks. ?	2 days	2 days	2 days	2–3 mo.
Time disappearance	...	...	...	12 mo.	...	2 mo.	14 wks.	>3 mo.	8 mo.	4 mo.	4 mo.
Bilirubin total/direct	...	20.3/?	...	8.6/3.7	2.6/3.7	14.6/5.3	7.3/4.5	20/4.6	18.3/7.8	9.1/3.2	7.3/6.5
SGOT	...	79	...	107	89	421	130	87	176	180	207
SGPT	...	63	...	39	...	61	36	...	112	81	187
Alk. Phos. (I.U./L.)	...	...	...	67.6	790	85	385	52	...	381	...
LDH (U./L.)	...	...	...	...	...	...	...	65	1,580	576	...
Liver biopsy or liver autopsy findings	PM[*] Bile staining; Hepatic cells; Bile thrombi in bile canaliculi	PM Hepatomegaly; Cholestatic cirrhosis with bile duct proliferation and cholestasis	PM Considerable bile and iron staining of Kupffer cells	WLB[†] Multinucleated giant hepatocytes; bile stasis; interlobar bile ducts decreased	WLB Multinucleated giant hepatocytes	WLB Intralobular bile stasis and giant-cell transformation	WLB Minimal inflammatory changes	NLB[**] Hyperplasia; Kupffer cells; Extramedullary hematopoiesis; Inflammatory infiltrate round cells	WLB Giant-cell transformation with bile thrombi	NLB Intralobular bile stasis; Areas of inflammation within portal tract & paucity of bile ducts	WLB Giant-cell hepatitis
Comments	Other twins affected; No PM available	Exchange transfused	...	...	...	...	ABO incompatibility requiring 4 exchange transfusions	...	...	...	...

[*] PM = Post mortem
[†] WLB = Wedge liver biopsy
[**] NLB = Needle liver biopsy

infancy. Although an accurate explanation is lacking, the association of neonatal hypopituitarism and liver dysfunction seems to be well established.

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Ferret's sneeze infects scientist

Now comes the story of the ferret who got even with the laboratory scientist.

The ferret, which is becoming increasingly popular as a pet, is used occasionally in medical research for the study of respiratory viruses.

A report in the April 24 Journal of the American Medical Association tells of a medical investigator who had injected a respiratory virus into a ferret. The investigator bent down face-to-face to see if the little creature had watery eyes or other signs of infection.

The ferret picked that moment to sneeze—promptly giving the infection back to the researcher.

The ferret is a small creature belonging to the same family as weasels, skunks, otters, and minks.

The real purpose of the report in the Journal's Medical News Section was to say that the Centers for Disease Control at Atlanta have concluded that there is virtually no likelihood of contracting rabies if you are nipped by your pet ferret. Some 12,000 ferrets are being sold each year in the United States, about half as pets and half for research. They are not used in the commercial fur industry.

Wild ferrets are so scarce that it is unprofitable for suppliers to try to trap them, and thus all ferrets being sold in the United States are cage raised and have not been exposed to rabid wild animals, the CDC reports. In fact, the black-footed ferret is nearing extinction in the wild, with only two or three reliable sightings reported in the past eight years.

Ferrets are attractive as pets because they are fastidious, easily housebroken, and usually docile. They usually are kept in cages and probably would escape if allowed outdoors unattended.

The article is by Medical News Senior Associate Editor, Phil Gunby.

An added complication... in the treatment of bacterial bronchitis*

Increasing incidence of ampicillin resistance in Haemophilus influenzae
Ampicillin Resistant Haemophilus influenzae
H. influenzae
S. pneumoniae

ief Summary
onsult the package literature for prescribing
formation

dications and Usage Ceclor® (cefaclor, Lilly) is
dicated in the treatment of the following infections
hen caused by susceptible strains of the designated
icroorganisms
Lower respiratory infections, including pneumonia
used by *Streptococcus pneumoniae (Diplococcus*
eumoniae), Haemophilus influenzae, and *S*
ogenes (group A beta-hemolytic streptococci)
Appropriate culture and susceptibility studies
ould be performed to determine susceptibility of
e causative organism to Ceclor

ontraindication. Ceclor is contraindicated in patients
th known allergy to the cephalosporin group of
tibiotics

arnings. IN PENICILLIN-SENSITIVE PATIENTS,
PHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED
AUTIOUSLY THERE IS CLINICAL AND LABORATORY
VIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE
NICILLINS AND THE CEPHALOSPORINS AND THERE ARE
STANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO
OTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER
ARENTERAL USE)
Antibiotics, including Ceclor, should be administered
utiously to any patient who has demonstrated some
rm of allergy particularly to drugs

recautions If an allergic reaction to cefaclor occurs
e drug should be discontinued and, if necessary, the
tient should be treated with appropriate agents e g
essor amines antihistamines or corticosteroids
Prolonged use of cefaclor may result in the
vergrowth of nonsusceptible organisms Careful
oservation of the patient is essential If superinfection
ccurs during therapy, appropriate measures should
e taken
Positive direct Coombs tests have been reported
uring treatment with the cephalosporin antibiotics In
ematologic studies or in transfusion cross-matching
rocedures when antiglobulin tests are performed on
e minor side or in Coombs testing of newborns
hose mothers have received cephalosporin antibiotics
efore parturition it should be recognized that a
ositive Coombs test may be due to the drug
Ceclor should be administered with caution in the
resence of markedly impaired renal function Under
uch a condition, careful clinical observation and
boratory studies should be made because safe
osage may be lower than that usually recommended
As a result of administration of Ceclor a false-
ositive reaction for glucose in the urine may occur
his has been observed with Benedict s and Fehling s
olutions and also with Clinitest® tablets but not with
es-Tape® (Glucose Enzymatic Test Strip USP Lilly)
Usage in Pregnancy Although no teratogenic or
ntifertility effects were seen in reproduction studies
mice and rats receiving up to 12 times the
aximum human dose or in ferrets given three times
e maximum human dose the safety of this drug for
se in human pregnancy has not been established
he benefits of the drug in pregnant women should
e weighed against a possible risk to the fetus
Usage in Infancy Safety of this product for use in
fants less than one month of age has not been
stablished

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.$^{1-6}$

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

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Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below

Gastrointestinal symptoms occur in about 2 5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90)

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100) Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia arthritis, have been reported Anaphylaxis has also been reported

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients)

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103080R]

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* Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae* [8]

Note Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information

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Mixed Parathyroid-Thymic Cyst

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Clinically significant cervical parathyroid and thymic cysts are uncommon. To date, 109 parathyroid cysts and 72 thymic cysts have been reported, but there has been no report of a cervical cyst, the wall of which is composed of both parathyroid and thymic tissue.[1,2] The following report describes an instance in which a patient was operated on for a mass in the neck, preoperatively evaluated as a nonfunctioning thyroid nodule. A cervical cyst was excised, the wall of which was composed of both thymic and parathyroid elements, thereby suggesting origin from a common precursor tissue, namely the third branchial pouch.

Case report

A 22-year-old male was found to have an asymptomatic mass in the anterior neck on the right side on routine physical examination. The mass was 2 cm. in diameter, well circumscribed, rubbery in consistency, and was felt to arise from the lower pole of the right lobe of the thyroid. Laboratory work-up findings revealed that the patient was euthyroid and the serum calcium was within normal limits. A radioactive thyroid scan (scintiscan) demonstrated a "cold" area at the inferior pole of the right lobe. At surgery, a 2.5-cm. cystic mass was excised. The lesion was well encapsulated and easily separated from the thyroid gland, from which it did not appear to arise.

Pathologic examination

The specimen was a 2.5-cm. diameter, thin-walled cyst filled with straw-colored clear fluid; the inner lining was smooth. The wall was 2 to 3 mm. thick and, microscopically, was composed of an epithelial lining, dense collagen, thymic tissue, and parathyroid tissue (Fig. 1A). The parathyroid tissue consisted of chief cells and clear cells (Fig. 1B). The thymic tissue consisted of small lymphocytes and Hassall's corpuscles (Fig. 1C). Both thymic and parathyroid components were in direct continuity with the collagenous portion of the cyst wall, without an interposed connective tissue plane. The epithelial lining, where present, was low cuboidal.

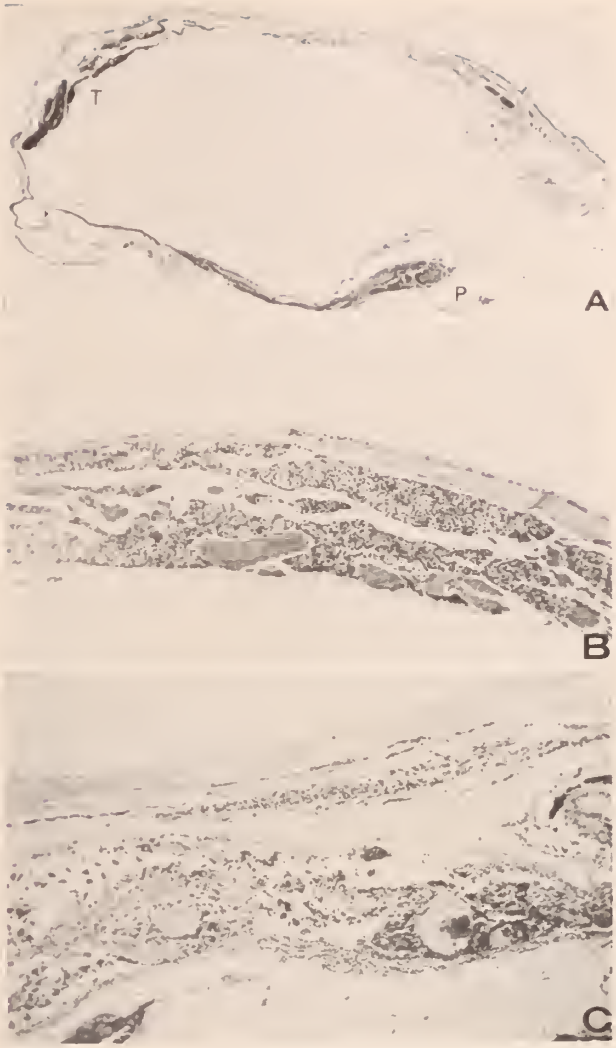

FIGURE 1. (A) Cross section of cyst in plane in which both parathyroid (P) and thymic (T) components are present (hematoxylin and eosin stain). (B) Parathyroid tissue in continuity with collagen of cyst wall (hematoxylin and eosin stain, original magnification ×320). (C) Thymic tissue in continuity with collagen of cyst wall (hematoxylin and eosin stain, original magnification ×400).

Comment

The parathyroid glands were first described in man by Sandström in 1880, and he also was the first to describe a parathyroid cyst.[3] In 1905, Goris[4] described the excision of a parathyroid cyst. The first case of thymic cyst was reported by Polloson and Piery in 1901.[5] Complete excision of a cervical thymic cyst was accomplished by Hyde, Seller, and Owen in 1944.[6]

The etiology of thymic and parathyroid cysts has been extensively discussed in the literature.[7–11] Four current theories for the origin of parathyroid cysts are: (1) accumulation of secretions in microcysts with gradual enlargement, (2) retention cysts of parathyroid hormone, (3) cystic degeneration of preexisting parathyroid adenomas, and (4) persistent embryologic remnants in the neck.

Cervical thymic-cyst pathogenesis has been described by Speer[12] as: (1) from embryonal remnants of the thymopharyngeal ducts, branchial clefts, or thymic tubules, (2) from sequestration products and pathologic involution of the gland, (3) from degenerating Hassall's corpuscles, (4) from lymph vessels, blood vessels, or connective tissue in various stages of thymic development, hyperplasia or involution, and (5) from neoplastic processes in the lymphoid cytoreticular or connective tissue.

Cervical thymic cysts have been discussed in detail by Strome and Eraklis.[13] They reported two basic etiologic concepts: those derived from remnants of the thymopharyngeal tract and those of degenerative origin. The authors suggest awareness of this entity for preservation of normal thymic tissue, particularly in children.

Developmentally, the thymus is an outgrowth of the third branchial pouch. In rare instances, the fourth branchial pouch may contribute as well. The parathyroids are also derived from the third and fourth pouches—thus, the association of parathyroid tissue with some thymic cysts.

Parathyroid cysts may be lined by cuboidal epithelium derived from parathyroid cells, or an epithelial lining may be absent. Thymic cysts may be lined by cuboidal, columnar, or squamous elements, or an epithelial lining may be absent as well. Proof of the origin of a cyst from a particular structure or tissue requires that the tissue be present in the cyst wall. In this report, both thymic and parathyroid tissue comprised an integral part of the cyst wall. Thus, it is not possible to be certain whether the cyst is of thymic or parathyroid origin; this report suggests origin from both, a mixed parathyroid-thymic cyst.

Cervical cysts with both thymic and parathyroid components have been previously described, but none were reported in which these elements formed the cyst wall. Behring and Bergman[14] described a thymic cyst in a nine-year-old boy in which a small island of parathyroid tissue was found adjacent to the wall of the cyst. In an extensive review of cervical thymic cysts, Guba et al.[1] pointed out that these cysts are frequently associated with other endocrine gland inclusions. Discrete nests of normal parathyroid tissue were seen at a distance from the cyst lumen and were, therefore, considered inclusions. Troster, Chiu, and McLarty[7] reported a parathyroid cyst composed entirely of chief cells, with a small focus of thymic tissue containing obvious Hassall's corpuscles in the wall near the parathyroid tissue. Kirwan[15] described a patient with a parathyroid cyst with a wall containing multiple nodules of lymphoid tissue. Although this lymphoid tissue could have been thymic, no reference was made to the possibility.

Clinically, the lesion presented in this report most resembled a parathyroid cyst. Clark,[2] in his extensive review of parathyroid cysts, pointed out that eight of his 13 patients had solitary thyroid nodules that were nonfunctional (cold) on radioactive scan; they could be mistaken for thyroid cysts or other cystic neck masses. The lesion is usually smooth, nontender, and situated at the inferior portion of the thyroid gland. At surgery, the cyst is either separate from the thyroid or easily dissected free of the gland. Wang, Vickery, and Maloof[16] reported similar findings noting that large parathyroid cysts often mimic solitary thyroid nodules, and at operation are usually loosely attached to the thyroid, with a definite cleavage plane. The cyst wall is a greyish-white color, and is often translucent; its lining is shiny and smooth, and most are located in the lower neck. Although most parathyroid cysts are nonfunctioning, Clark[2] reported an incidence of hyperparathyroidism in 15 percent of patients reviewed.

Summary

The unique occurrence of a patient with a cervical cyst, composed of both thymic and parathyroid tissue contiguous with the collagenous portion of the cyst wall, without an interposed connective tissue plane, suggests origin from a common precursor tissue, namely the third branchial pouch. Clinically, the lesion was a nonfunctioning thyroid nodule, and it was treated surgically as a parathyroid cyst.

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New treatment program helps vets contain war neuroses

War veterans gained dramatic relief from the mental tortures of nightmarish reliving of their war experiences through a new drug treatment program reported in an American Medical Association publication.

Traumatic war neurosis may become a chronic, debilitating condition that resists treatment, George L. Hogben, M.D., psychiatrist with Mount Sinai School of Medicine, City University of New York, and The Bronx Veterans Administration Center, pointed out.

Dr. Hogben reported in Archives of General Psychiatry (April) on treating five veterans ranging from World War II through the Korean War to Viet Nam for war neurosis ranging from five to 30 years duration.

All five had been treated with psychotherapy and with medications of various sorts, to no avail. Their mental suffering continued.

The Bronx VA Center began using a drug called phenelzine sulfate, (Nardil). There was immediate improvement in all five, he said.

A World War II veteran entered the hospital for severe panic attacks, nightmares, and deteriorating social functioning. He had been ill since the end of the war, and had tried various treatments. Dr. Hogben writes:

"He had extensive World War II combat experience in the European theatre and had infiltrated behind enemy lines. On these missions, he killed many enemy soldiers in hand-to-hand combat. He also saw many of his buddies killed by enemy fire.

"He was captured, and both of his arms were broken by German soldiers. He was hospitalized in a prisoner-of-war hospital in Italy, where he was subjected to many atrocities. German soldiers forced the patient and other sick prisoners into deep, rat-infested pits.

"As the patient's arms recovered, he acted as an orderly in the hospital. He spent hours working with burned and maimed allied soldiers. He was forced to witness German machine-gun executions of many of these patients."

The veteran's nightmares began shortly after his honorable discharge from service. When not sleeping, he heard the voices of his wartime buddies calling out for help. He had panic states with paralyzing fear, sweating, chest pain, and stomach upsets. These problems had continued for 30 years.

Within one day after starting a regimen of phenelzine, the patient felt and acted calmer. He gradually recuperated and a year later was functioning moderately well.

A Korean war veteran saw his buddies killed in combat and his position was several times overrun by the enemy. Severe panic with frightening nightmares developed in the field, and he was evacuated to a hospital. Since his discharge, he had avoided elevators and subways and had continuing nightmares of traumatic war scenes. He had turned to heavy drinking to relieve the symptoms when other treatment methods failed.

This man, too, responded quickly to phenelzine.

Two of the others encountered shocking traumatic experiences in Viet Nam, and the fifth man suffered from the trauma of seeing men burned to death in helicopter crashes, even though he was not actually in combat himself.

Each patient felt much calmer almost immediately after treatment when the drug was begun, Dr. Hogben said. The nightmares stopped in all five men and flashbacks ceased in four. Three patients were able to discontinue the drug slowly after three to six months and maintained their improved condition for up to 18 months.

One problem in coping with chronic, traumatic war neurosis is that of diagnosis, he said. All of the cases mentioned had been diagnosed for various emotional ailments, most frequently chronic paranoid schizophrenia.

"Chronic traumatic war neurosis is a debilitating condition that prevents many veterans from leading meaningful lives. Many veterans are deeply ashamed of their war experiences and conceal the material from others as well as from themselves."

AMA DRUG EVALUATIONS, FOURTH EDITION, the AMA's manual on drugs for physicians, describes phenelzine sulfate as effective in the treatment of some depressed patients, particularly those with depressive and phobic neuroses accompanied by anxiety. There is potential for serious side effects, the AMA points out, and patients should be closely supervised and dietary precautions should be observed.

The long-term outcome of traumatic war neurosis treated by phenelzine is uncertain, Dr. Hogben pointed out. Patients who stopped taking the drug against advice showed severe recurrences.

Coexistence of Paget's Disease and Hyperparathyroidism

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Paget's disease of bone, a disease of unknown cause and considerable frequency, has been only occasionally reported to coexist with primary hyperparathyroidism, another fairly frequent disorder. In the cases reported so far, the cause of hyperparathyroidism was a single adenoma (in one case two adenomas). We report a case in which Paget's disease of bone coexisted with primary hyperparathyroidism due to diffuse hyperplasia of the parathyroids. In addition, the hyperparathyroidism led to the enhancement of the activity of Paget's disease as reflected by the increase in alkaline phosphatase and the bone biopsy findings. This enhancement subsided after removal of the hyperplastic parathyroid glands.

Case report

A 67-year-old white male was admitted to the Clinical Research Center for evaluation of Paget's disease and hypercalcemia. Paget's disease was diagnosed in 1968 when he developed renal colic. In 1975 he was treated for thrombophlebitis of the right leg and was continued on subcutaneous heparin daily for three and one-half months. Six months later he underwent an elective bilateral herniorrhaphy. At that time his serum calcium level was 12 mg. per deciliter (normal 9 to 10.5), serum phosphate was 3 mg. per deciliter (normal 2.5 to 4.8), and alkaline phosphatase 706 U. per liter (normal 25 to 82). The hypercalcemia was ascribed to immobilization. In 1977 the patient suffered a second episode of renal colic. Four months prior to admission he experienced progressive bilateral hip and leg pains and was found to have a serum calcium level of 12 mg. per deciliter. He was ambulatory and was not taking any drug except an occasional aspirin tablet for pain. He was alert and had some bowing of the left tibia. His height was 69 inches, weight 185 pounds, blood pressure 130/80, pulse 72, and temperature 97.4° F. The thyroid gland was palpable. The lungs were clear on auscultation. There was a grade 3/6 systolic ejection murmur over the precordium. The abdomen was unremarkable. Neurologic examination gave normal results.

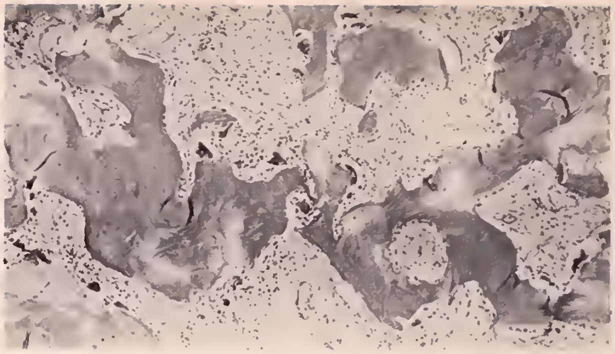

FIGURE 1. Bone biopsy demonstrating marrow fibrosis, thick trabeculae, abnormal cement line pattern, and widespread osteoclastic activity.

Laboratory results were as follows: hemoglobin 15 mg. per deciliter; hematocrit 44; white blood cell count 5,400 per cubic millimeter. Serum glucose was 108 mg. blood urea nitrogen 33 mg. and serum creatinine 1 mg. per deciliter. Serum sodium was 140, chloride 104, and carbon dioxide 28 mEq. per milliliter. The alkaline phosphatase was 1,104 U. per liter. Serum calcium was 11.5, serum phosphate 5.8, total protein 6.3, and albumin 3.9 mg. per deciliter. The liver function tests gave normal results; calcium oxalate crystals were seen in the urine; Bence Jones protein was absent, and results of serum protein electrophoresis were normal. Serum parathormone levels measured on four occasions within three weeks were 249, 343, 370, and 462 μEq. per milliliter (normal up to 130); corresponding serum calcium levels were respectively 12.3, 12, 11.2, and 11 mg. per deciliter. Results of chest roentgenogram were normal, as was the iodine-131 thyroidal uptake. A bone survey showed polyostotic Paget's disease involving the skull, the lumbosacral spine, the pelvis, the femora, and the left tibia; there was no evidence of hyperparathyroidism. Results of a bone biopsy showed marrow fibrosis and also markedly thick trabeculae with an abnormal cement line pattern; osteoclastic activity was extremely widespread and seemed to exceed the usual activity of Paget's disease (Fig. 1).

The patient underwent a neck exploration. Three enlarged parathyroid glands were removed; a fourth gland, slightly enlarged, was left behind. Two of the removed glands (135 and 130 mg.) showed chief cell hyperplasia. The third gland (970 mg.) showed chief

TABLE I. Serum alkaline phosphatase levels before and after surgery

Date	Serum Alk. Phos. (U. per liter)
1/4/76	706
1/8/76	648
2/27/76	662
6/22/78	1,221
7/10/78	1,104
7/17/78	Surgery
8/8/78	952
9/7/78	839
9/29/78	672

cell hyperplasia surrounding an adenomatous nodule. On the fifth postoperative day, the serum calcium was 7.5 mg., requiring treatment with oral calcium carbonate and dihydrotachysterol for a period of six weeks after surgery. Two months after surgery the alkaline phosphatase level dropped to 672 U. per liter (Table I). The blood urea nitrogen was 20 mg. and serum creatinine 1.1 mg. per deciliter. Results of a repeat bone biopsy showed considerable reduction in the osteoclastic population (Fig. 2).

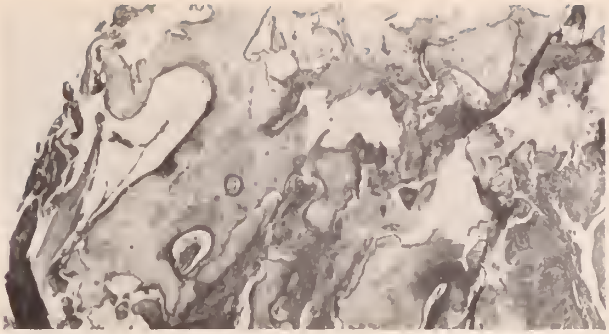

FIGURE 2. Repeat bone biopsy after parathyroidectomy showing significant decrease in osteoclastic activity.

Comment

The simultaneous presence of Paget's disease and hyperparathyroidism is probably fortuitous since both are diseases of considerable frequency. Paget's disease is diagnosed at autopsy in about 3 percent of individuals over the age of 40.[1] Hyperparathyroidism is also common; one of every 800 patients seeking medical attention may have the condition.[2] In experimental animals, the prolonged use of calcitonin may increase the circulating levels of immunoreactive parathormone; and in humans, chronic calcitonin treatment of Paget's disease has induced a compensatory hyperparathyroidism which is temporary and suppressible.[3]

To our knowledge, the spontaneous development of hyperparathyroidism in a patient with Paget's disease has been reported so far in only 16 cases. In 1975, Ben-Asuly et al.[4] reported one case and reviewed 13 others from the world literature; since then two more cases have been added.[5,6] All 16 cases were histologically diagnosed as adenoma.

Our case differs from the previously reported ones in that the histologic finding was chief cell hyperplasia of all the parathyroids in addition to the adenomatous changes seen in one gland. This underlines the fact that the histologic change of the parathyroids in cases of hyperparathyroidism associated with Paget's disease is probably similar to what is observed in the general population. Indeed, diffuse hyperplasia is much less frequent than adenoma.

Paget's disease and hyperparathyroidism share a similar effect on bone, that is, increased osteoclastic activity. While in the former condition the alkaline phosphatase is usually markedly elevated, in the latter, the elevation is usually mild and is seen mainly in patients with overt bone disease. In the present case, the contribution of hyperparathyroidism to the alkaline phosphatase elevation was considerable despite the lack of radiologic manifestation. Following parathyroidectomy, the alkaline phosphatase declined by as much as 400 units, one-third to one-half the preoperative value (Table I). This finding, as well as the bone biopsy findings before and after surgery as seen in Figures 1 and 2, indicate that the effect of parathormone on bone was exaggerated in this patient with Paget's disease.

It appears, then, that the effect of the two diseases on bone turnover rather than being simply added, is actually multiplied. This enhancement of osteoclastic activity might explain the malignant presentation of previously reported cases in the form of hyperparathyroid crisis.[4] It might also justify the use of a selective osteoclastic poison, mithramycin, to treat severe hypercalcemia in such a circumstance as was recently reported[6]; especially when other modalities of treatment are ineffective or contraindicated. We would like also to emphasize the importance of early surgery as was previously recommended.[4] Although the serum calcium level in our patient was rarely above 12 mg. per deciliter, it is safe to assume that during periods of immobilization, the exaggerated osteoclastic activity would cause dangerous rises in serum calcium. Finally, a significant increase in serum alkaline phosphatase from a given level in a well-established case of Paget's disease usually indicates extension of lesions, increase in activity, or the passage of the disease from quiescence to activity and, rarely, malignant degeneration. Our case suggests that if hypercalcemia is also found, it is appropriate to look for an associated hyperparathyroidism as a potential cause of the enhancement of Paget's disease activity.

Summary

We report a case of a 67-year-old male with coexisting Paget's disease and primary hyperparathyroidism due to diffuse hyperplasia of the parathyroids. There was typical radiologic evidence of Paget's disease but none of hyperparathyroidism. Before subtotal parathyroidectomy, a bone biopsy revealed widespread osteoclastic activity exceeding

the usual activity of Paget's disease. After surgery, the serum alkaline phosphatase level declined to 50 percent of the preoperative value without specific treatment of Paget's disease. In addition, a repeat bone biopsy showed considerable reduction in the osteoclastic population. It is concluded that the combined effect of the two diseases on bone turnover instead of being simply added is actually multiplied. This might explain the malignant presentation of previously reported cases.

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Laughing gas calms children facing painful medical care

Laughing gas has been successfully used to calm children facing painful treatment in the physician's office, says a report in the June 19 Journal of the American Medical Association.

Glen C. Griffin, M.D., the University of Utah College of Medicine, Salt Lake City, reports on use of a mixture of nitrous oxide (laughing gas) and oxygen to sedate some 3,000 children in preparation for sewing cuts, removing fishhooks and splinters, and various other painful procedures.

Feat and apprehension were decreased, resulting in happier children, parents and medical personnel, says Dr. Griffin. There were virtually no untoward side effects. The nitrous oxide-oxygen mixture was not a substitute for the injection of local anesthesia for suturing, but calmed the children so that the feat of the pain of the needle was greatly reduced, he says.

Nitrous oxide was discovered in 1772, but remained little more than a novelty until in 1844 it was used to relieve pain in a tooth extraction. It has been widely used in dental practice.

In an accompanying editorial, William O. Robertson, M.D., of Children's Orthopedic Hospital and Medical Center, Seattle, declares that medicine has been remiss in concern about pain in infants and small children.

Over the past century medicine has learned to conquer, or at least manage, pain in adults, making possible modern surgery. Medicine seems to have gained the upper hand in dealing with pain—particularly in adults, Dr. Robertson says.

But managing pain in children has received less attention, he declares. He calls on skeptics to "witness the next neonatal (new born infant) circumcision in your hospital. Be it for postoperative infants, for toddlers with 'scaled skin syndrome,' or for older children about to undergo 'minor surgery,' I argue that our concern about managing potential or real pain has not paralleled that directed toward adults with comparable conditions."

Angioimmunoblastic Lymphadenopathy with Dysproteinemia

Masquerader of lymphoma

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AILD (angioimmunoblastic lymphadenopathy with dysproteinemia) is a systemic disease manifested by a lymphoma-like syndrome.[1] The lymph nodes are involved in all cases and frequently there is also involvement of the liver and spleen. Lymph-node manifestations may be associated with, and in many cases are preceded by, erythematous maculopapular skin rashes.

The histologic criteria for the diagnosis of AILD in the lymph nodes have been described and include extensive alteration of the nodal architecture, abundance of small vessels and pronounced proliferation of immune reactive cells (lymphocytes, plasma cells, and immunoblasts).[1]

Case reports

Case 1. A 66-year-old seamstress was seen in an outpatient department of another hospital in December, 1979, because of a three-week history of cough and four-day history of weakness and shortness of breath. She was given an unknown blood pressure medication and shortly after starting this treatment developed a generalized erythematous rash and facial swelling. The medication was discontinued.

In January, 1980, she was admitted to that hospital with continued weakness and shortness of breath, and swelling of the left side of the neck. Physical examination revealed generalized lymphadenopathy without hepatosplenomegaly and increased temperature. Chest x-ray film revealed bilateral pleural effusions. She was started on furosemide (Lasix).

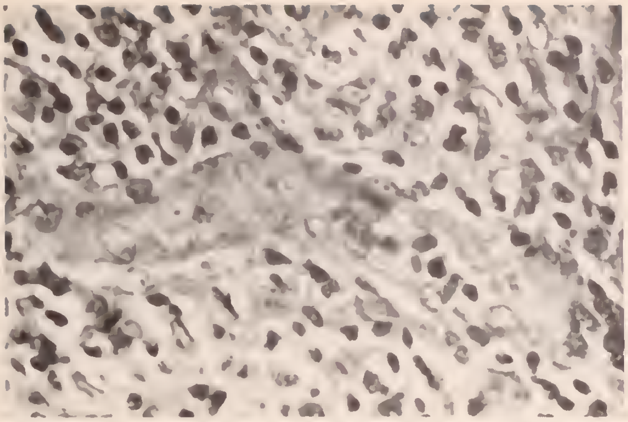
FIGURE 1. Case 1. Biopsy of cervical lymph node showing infiltration by lymphocytes, lymphoblasts, eosinophils, and plasma cells. Note proliferation of small vascular channels.

Laboratory findings included a hematocrit of 16, a diffuse increase in gamma globulins, and positive results of a Coombs' test. The white blood cell count was 8,500, with no shift. Bilateral thoracocentesis revealed transudates with negative findings on cytologic study and culture. Lymph-node biopsy of a cervical node revealed destruction of the nodal architecture due to infiltration by lymphocytes, lymphoblasts, scattered eosinophils, and plasma cells. A striking proliferation of small vascular channels was found (Fig. 1). Testing with periodic acid-Schiff stain gave positive results.

Bone marrow aspirate showed a normocellular appearance with normal maturation. There was a slight increase in lymphoid and reticulum cells. Few granulocytes more mature than myelocytes were seen, and therefore medications were discontinued in view of the decreased granulocytes. Lung biopsy disclosed interstitial infiltrates consisting of eosinophils and polymorphic lymphocytes (Fig. 2). The patient was started on 60 mg. of prednisone daily and was well enough to leave the hospital after one month. The prednisone was discontinued on February 11 and she was followed in the hematology clinic.

The patient was free of symptoms until August, 1980, when she developed a cough productive of a watery yellow sputum. Because of increased weakness, shortness of breath, and spiking fevers with night sweats she was admitted to The Mount Sinai Hospital. A chest x-ray film demonstrated bibasilar interstitial infiltrates with pleural effusions. On admission there was generalized adenopathy with no hepatosplenomegaly. The sedimentation rate was slightly elevated. Bone marrow testing disclosed normocellular marrow with all elements present. There was no evidence of lymphoma. Coombs' test gave negative results, and bronchoscopy showed interstitial pleomorphic cellular infiltrates of large and

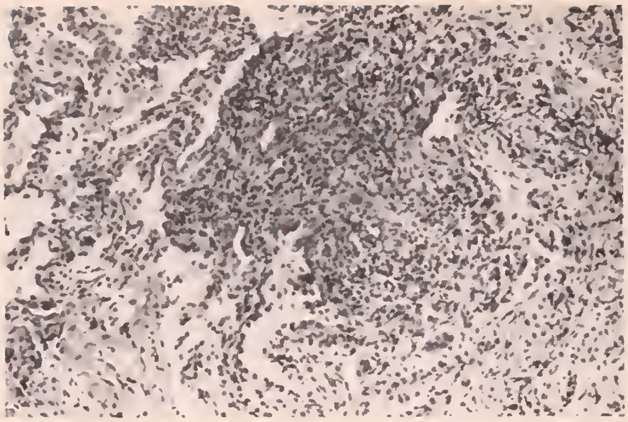

FIGURE 2. Case 1. Lung biopsy reveals interstitial infiltrates—eosinophils and polymorphic lymphocytes.

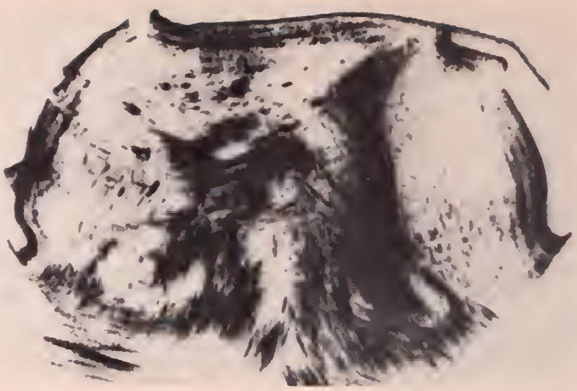

FIGURE 3. Case 2. Sonogram shows markedly enlarged spleen and moderate hepatomegaly.

small lymphocytes, macrophages, eosinophils, and plasma cells. Vessel walls within the infiltrates were sclerotic and several showed permeation by inflammatory cells with areas of elastica replication and destruction compatible with AILD. On September 19, 1980, the patient was started on prednisone, 60 mg. daily, which was increased to 80 mg. daily, resulting in some improvement.

Case 2. A 51-year-old pharmacist appeared at The Mount Sinai Hospital in February, 1980, with shortness of breath, fatigue, weight loss, and painful swelling in the left side of his neck.

A sonogram showed marked splenomegaly and moderate hepatomegaly (Fig. 3). Chest x-ray film showed bilateral interstitial infiltrates and effusions.

He was anemic with the following pertinent laboratory results suggestive of hemolysis. A peripheral smear demonstrated numerous fragmented red blood cells, spherocytes, and target cells. Hemoglobin

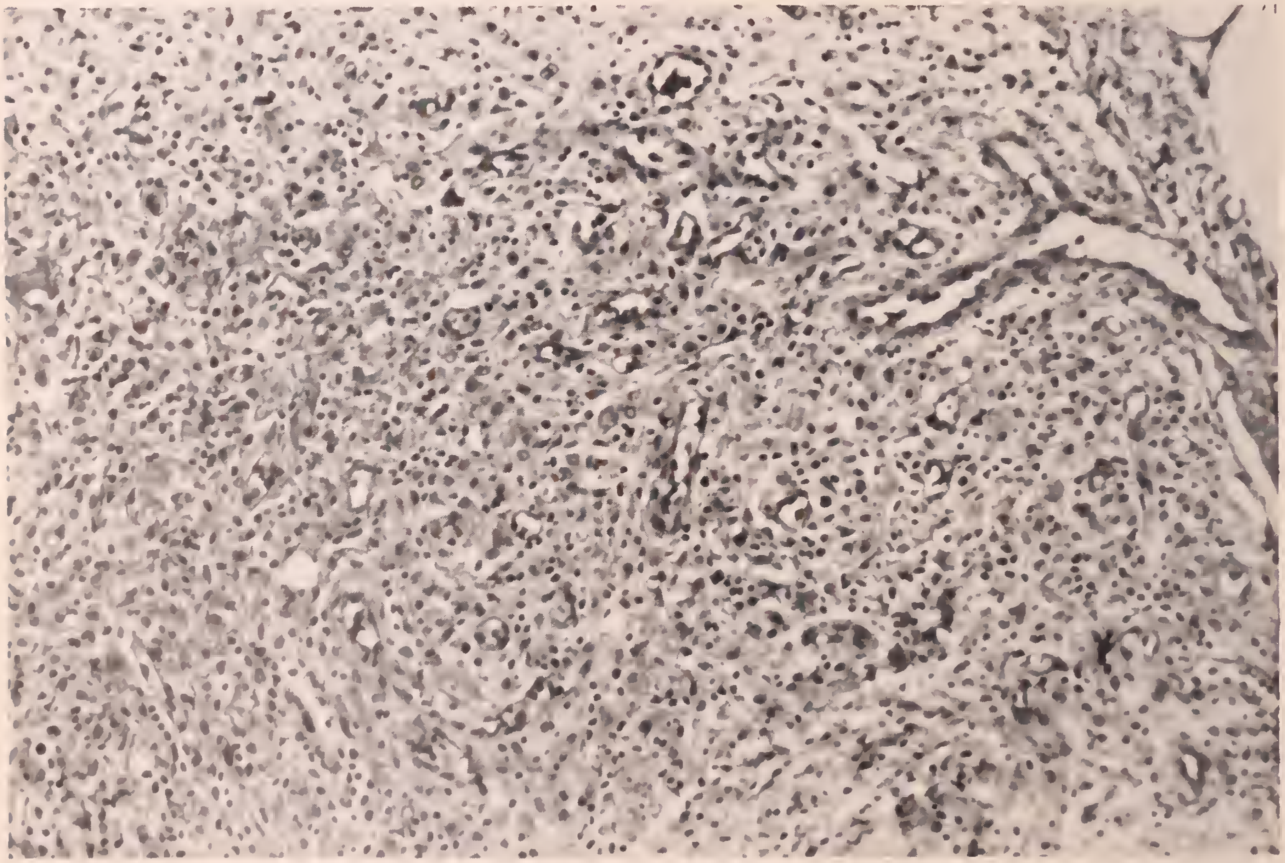

FIGURE 4. Case 2. Cervical lymph-node biopsy reveals diffuse obliteration of nodal architecture typical of AILD. Infiltrates consist of small lymphocytes in varying stages of maturation, with plasma cells, eosinophils, histocytes, and immunoblasts. Small arborized vessels proliferate in many parts of node, and endothelium shows marked hypertrophy.

measured 7 Gm. per 100 ml. with a hematocrit of 24. A reticulocyte count measured 6 percent with haptoglobin of 8 and fibrinogen less than 50 mg. per 100 ml. A test for fibrin split products gave negative results. The total bilirubin was 4 mg. per 100 ml., with 3.4 mg. per 100 ml. unconjugated. His Coombs' test gave positive results with markedly elevated lactic dehydrogenase.

Results of serum immunoelectrophoresis disclosed severe hypogammaglobulinemia. Serum immunoglobulin levels were: IgG 248 mg., IgA 35 mg., and IgM 23 mg. per 100 ml.

A cervical lymph-node biopsy revealed the changes typical of AILD; there was diffuse obliteration of the architecture of the small node caused by pleomorphic cellular infiltrates consisting of small lymphocytes, in different degrees of maturation, with plasma cells, eosinophils, histocytes, and immunoblasts. Significant proliferation of small, arborized vessels was found in many portions of the node with marked hypertrophy of the endothelium (Fig. 4).

The patient at first responded to prednisone, 40 mg. daily; however, after a two-week course of therapy, spiking fevers returned and the patient was started on chemotherapy, with various combinations of bleomycin sulfate, vincristine sulfate, cyclophosphamide, and prednisone. He continued a downhill course with spiking fevers and marked elevation in liver function tests. The patient was then readmitted to the hospital in September, 1980, with bilateral pleural effusions and pedal edema. He responded well to prednisone and furosemide. After this initial good response, his condition again deteriorated despite treatment with cisplatin and nitrogen mustard. At this time he developed a large right upper lobe infiltrate that failed to resolve after a course of broad-spectrum antibiotics. Transbronchial biopsy on October 23, 1980, revealed fragments of lung with necrosis and acute inflammation. No *Pneumocystis*, bacteria, or fungi were found. However, 10 days later cultures became positive for aspergillosis, and the patient was placed on amphotericin B.

Comment

AILD is a term descriptive of the histopathologic findings in the involved nodes. There is a pronounced proliferation of small vessels noted in the lymph nodes. Characteristic lymphoblasts as well as other lymphocytes, plasma cells, and eosinophils infiltrate the node causing enlargement and eventually complete obliteration of the normal lymph-node architecture. In addition, dysproteinemia due to an abnormal polyclonal increase in immunoglobulins is a feature of this disease. The pathogenesis of this polyclonal increase has been postulated to be related to abnormalities of the function of the B- and T-cell lymphocyte systems.[2] It is postulated that drugs, coupled with haptenes to self-antigens could bypass the T-cell-dependent surveillance system and sensitize B-lymphocytes against the antigen with resultant increase in immunoglobulin production.[3] In approximately one quarter of the reported cases there has been a history of previous ingestion of a medication such as antibiotics (most frequently penicillin, sulfonamides, or nitrofurantoin), oral antidiabetic agents, thiazide diuretics, and hydantoins or other anticonvulsant agents. It may be in other cases that due to a defect of T-cell lymphocytes the autoimmune response is set off without an offending agent.[2-6]

The disease has an acute onset and, clinically, patients appear with anorexia, weight loss, and shortness of breath. The age of onset ranges from childhood to 92 years. Males and females are affected equally, usually in the sixth decade of life. Classically, there is generalized lymphadenopathy and some patients have hepatosplenomegaly. Many have a Coombs'-positive hemolytic anemia and other autoimmune manifestations.[4] A history of skin rash can often be obtained and the patient generally has a history of spiking fevers. Two types of clinical courses have been described.[4] In the first group there is a good prognosis without treatment. The other group has a worse prognosis with rapid progression of the disease even after treatment.

In Case 1, the patient was a 66-year-old woman who was basically in good health until the onset of symptoms compatible with mild congestive heart failure caused by hypertension. She visited a clinic and was put on an unknown antihypertensive drug, most likely a hydrochlorothiazide, which is a sulfur derivative. The patient had an allergic type reaction, manifested by generalized rash and facial swelling. Approximately one month after discontinuing the drug, weakness, anorexia, and weight loss ensued along with shortness of breath and spiking fevers. On physical examination she had generalized lymphadenopathy without hepatosplenomegaly. She was seen in clinic where she was found to have large pleural effusions and was admitted and started on furosemide (another sulfur derivative).

A worsening of her condition ensued. Chest x-ray films revealed a bilateral interstitial pattern with pleural effusions which had not been present months earlier. The diagnosis of AILD was made on biopsy of a cervical node. An interesting facet of this case is that not only were cervical nodes diagnostic of AILD, but a positive lung biopsy was obtained, indicating that the interstitial process might be directly related to the AILD, something that to our knowledge has not been shown on previous cases in the literature.

As is typical of the hypersensitivity type cases of AILD, the woman did well on prednisone and her pleural effusions disappeared. She is now doing well off furosemide and is on triamterene (Dyrenium).

Case 2 is more of an enigma. The patient was a pharmacist, but no history of drug ingestion was elicited. He had weight loss, fevers, generalized adenopathy, and hepatosplenomegaly, with Coombs'-positive hemolytic anemia. He had bilateral interstitial infiltrates. In this case, however, there was also a segmental pneumonia with a lung biopsy in this area that was culture-positive for aspergillosis, but negative for evidence of AILD. He is undergoing extensive chemotherapy at this time, but nevertheless is experiencing a relentless downhill course.

The two cases emphasize the spectrum of the disorder and the possibility that there exists at least two different groups with obviously different prognoses.

It is important to consider AILD in the differential diagnosis of generalized lymphadenopathy and hepatosplenomegaly. This entity is not a lymphoma and chemotherapy is not the appropriate treatment in all cases. Many patients will do well with prednisone or no medication at all.

As cases continue to be reported, the full spectrum of this disorder will become more evident and, hopefully, the disease process will be better understood.

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Added health hazard charged to PCBs—high blood pressure

Another potential health danger from absorbing too much PCB (polychlorinated biphenyls) is reported in the June 26 Journal of the American Medical Association—high blood pressure.

In a study of residents of Triana, Alabama, by scientists of the Centers for Disease Control, it was found that rates of blood pressure for study participants were 30 percent higher than expected on the basis of national rates for a population of the same age, race, and sex composition.

PCBs are complex chemical mixtures that were manufactured in the United States from 1929 until 1977, when the potential health hazards were confirmed. They were used in electric power equipment, inks, adhesives, pesticides, and carbonless duplicating paper. PCBs are now widely found in the environment, says Kathleen Kreiss, M.D., of the Centers of Disease Control, Atlanta.

The chemical mix had already been known to cause liver cancer and reproductive problems in laboratory animals, and in humans has been blamed for skin disorders, liver problems, and abnormalities in blood fats.

The Alabama study actually was conducted to determine exposure levels of the populace to DDT, another chemical that has been associated with health problems. The PCB findings turned up incidental to the DDT study, Dr. Kreiss says.

In addition to the studies in humans, fish in the area were tested. Indian Creek catfish and others from Cataco Creek in the area had PCB levels exceeding the allowed maximum for human use.

The Triana people with high PCB levels tended to eat locally caught fish more frequently than did other study participants.

"The only major dietary source of PCBs in the United States is fish," she said.

Most fish contain levels well below the amount considered unsafe for humans, "although freshwater fish from polluted waterways, such as the Hudson River or Lake Michigan, may have much higher levels."

PCB levels in Lake Michigan in the years 1972 through 1974 were well above the safe levels for both trout and coho salmon.

"Thus the level of PCB contamination of fish in Lake Michigan is higher than that in Indian Creek. The range of PCB levels measured for Michigan fishermen are higher than those measured for Triana residents who eat comparable amounts of fish," Dr. Kreiss says.

Post-DPT Inoculation Cervical Lymphadenitis in Children

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Several adverse reactions to DPT (diphtheria-pertusis-tetanus) toxoid vaccination have been described. These include local reaction at the site of the injection, low-grade fever, hypersensitivity, encephalomyelitis, and Hodgkin's disease. In this article, we present the cases of two siblings who received trivalent DPT inoculation and developed cervical lymphadenitis. One child had a recurrence of lymphadenitis with half the regular dose six months later.

Case reports

Case 1. A two-month-old black female had a fever of four days duration, together with a swelling on the left side of the neck for two days. Five days previously, she had received her first dose of DPT inoculation in her left arm and oral polio vaccine; her brother had received a booster dose from the same vaccine. The following day, the infant developed a fever and was treated with acetaminophen. The next day, the child became irritable, was crying constantly, and was then brought to the hospital. The prenatal and neonatal history revealed no abnormalities. Physical examination showed a well-developed, well-nourished female infant, slightly irritable, with a temperature of 99°F., pulse 140 per minute and regular, respiration 36 per minute, weight 12 pounds, 5 ounces (90 percentile), length 61.5 cm. (97 percentile), and head circumference 41 cm. (97 percentile). An anterior cervical neck mass on the left side, 4 by 3 cm. in size, was palpated; the mass was hard, firm, warm, and tender to the touch. The rest of the physical examination disclosed nothing unusual.

Laboratory data revealed: WBC (white blood cell) count 16,700 per cubic milimeter, polymorphonuclear leukocytes 51, lymphocytes 43, monocytes 4, and eosinophils 2 percent; hemoglobin was 9.3 Gm., and she had a positive sickle-cell trait. Viral titers for adenovirus and Coxsackie virus were 1:4 in acute and convalescent phase. Blood, throat, and urine cultures were negative for bacteria, and chest x-ray film findings were normal.

The patient was treated with nafcillin sodium, 100 mg. per kilogram per day, and ampicillin, 200 mg. per kilogram per day, by intravenous route for two weeks and with warm compresses around the neck mass every two hours. Hospital course was uneventful. There was a gradual decrease in the size of the neck mass, and the patient was discharged for home after the completion of intravenous medications, and was followed in the outpatient clinic. The cervical mass had resolved completely by the second clinic visit.

Case 2. A four and one-half-year-old black male, brother to Case 1, received DPT trivalent vaccine inoculation in the right arm and oral polio vaccine from the same lot as had his sister at the same health station on the same day.

On the day following immunization, the mother noticed a swelling on the right side of the neck with torticollis and fever. The physical examination revealed a well-developed, well-nourished black male not in distress whose temperature was 98°F., respiration 26 per minute, and pulse 110 per minute and regular.

There was an anterior cervical mass on the right side about 1.5 by 2.0 cm., tender and hard, and torticollis to the right side of the neck. Laboratory data revealed: WBC count 12,000 per cubic millimeter, polymorphonuclear leukocytes 48, lymphs 40, monocytes 8, and eosinophils 4 percent, and negative for sickle-cell trait. Viral titers for adenovirus and Coxsackie virus were reported negative, as were blood, throat, and urine cultures, and chest x-ray film findings. He was treated with oral ampicillin, 100 mg. per kilogram per day, and the symptoms were resolved by the fifth day. A check at the health station did not show any reported cases of cervical lymphadenitis among patients who had received inoculations on the same day.

Six months later, at the beginning of the school year, the patient received an 0.25-cc. booster dose of DPT immunization in the left arm at the same health station; the dose was halved owing to the history of a previous reaction to DPT.

The following day the child was brought back to the clinic because of swelling in the left side of the neck. Physical examination disclosed no acute distress, and the vital signs were normal. There was an anterior cervical mass on the left side about 0.5 by 1.0 cm. in size, tender, hard, and movable. The rest of the physical examination disclosed nothing additional. Treatment consisted of applying warm compresses around the mass four times daily. A follow-up visit at the clinic one week later showed a complete resolution of the neck mass.

Comment

Cervical lymphadenitis is a rare complication of DPT inoculation. Bichel[1] reported four cases of postvaccinal lymphadenitis developing into Hodgkin's disease, and, of this group, one was vaccinated against diphtheria and the rest were vaccinated against smallpox. The etiologic factor in cervical lymphadenitis following DPT inoculation is obscure. Harstock[2] reported the results of nine biopsies of cervical nodes in 20 cases of postvaccinal lymphadenitis. The histologic findings were similar to those observed with infectious mononucleosis, herpes zoster, and dermatopathic lymphadenitis. The local reaction that developed after the inoculation did not indicate infection at the site of inoculation. Local reaction, such as pain, erythema, and induration associated with low-grade fever, may be observed in the first 24 hours following DPT toxoid inoculation. These reactions may occur in other types of vaccinations. The incidence of local reaction is less than 5 percent, and is usually resolved in a few days.

Conclusion

It is possible that viral or bacterial agents might have contaminated the DPT vials used in the inoculations of these patients and thereby caused the cervical lymphadenitis. However, this is most unlikely since no other case of cervical lymphadenitis was reported in other children vaccinated at the health station on the same day.

The recurrence of cervical lymphadenitis in Case 2, six months later following one-half a booster dose of DPT inoculation, suggests a possible reaction of immunity in the lymphatic tissues to the DPT vaccine or its adjuvant base.[3]

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Physicians seeing fewer patients and spending more time with each

American physicians are spending more time with their patients in the 1980s.

In the new 10th edition of the American Medical Association's *Profile of Medical Practice, 1981*, the AMA reports that physicians in 1980 had an average of 112 patient visits per week, which is less than the average of 122.7 patient visits in 1979 and 130.6 in 1978.

But the physician's work week continues about the same: 44.5 hours of direct patient care in 1980 as compared with 44.9 hours in 1979 and 45.4 hours in 1978.

Profile of Medical Practice is published by the AMA as a reference guide to those interested in health care issues. It contains current data describing physicians' medical practices in the United States, and articles analyzing the social, economic, and policy issues relevant to health care.

The new 10th edition focuses on trends and changes in the health care system during the past decade. Statistics are derived principally from the AMA's 14th Periodic Survey of Physicians, conducted by the Center for Health Services Research and Development.

The opening article, "Competitive Forces in the Market for Physicians' Services," reviews the issue of competition versus regulation in the physicians' services market. It concludes that market place factors, particularly the increasing supply of physicians, do indeed serve to hold down the increase in physicians' fees.

A second article argues the inevitability of regulation in the health care sector and proposes that regulators establish economic incentives for the regulated, rather than simply handing down arbitrary rules. A third paper also deals with regulation, and argues that the proposed federal "caps" on Medicaid (health care of the poor) expenditures are likely to spread to the Medicare (health care of the elderly) program.

One section of Profiles covers such issues as physician manpower supply and its impact on hospital and physician expenditures; HMO (Health Maintenance Organization) performance and its linkage to HMO organizational structure; the economic status of resident physicians; physicians' fees, incomes, and expenses, and trends in the price of medical care services.

The AMA survey found that the average physician reported 78.7 patient visits per week in the office and 33.1 patient visits per week in the hospital in 1980. Physicians in metropolitan areas saw fewer patients than those in nonmetropolitan areas. In counties of more than 1 million persons, patient visits averaged 99.6 per week; in counties under 1 million the average rose to 116, and in nonmetropolitan areas physicians saw an average of 144.6 patients per week.

Average waiting time in the physician's office was 19.7 minutes in 1980. New patients had to wait 8.1 days for an appointment for a routine visit. Established patients waited 4.5 days for an appointment.

Fees for an initial office visit averaged $33.28 in 1980.

Physicians' net income from medical practice rose by an average of 7.2 percent each year from 1970 to 1979. The average income in 1979 was $78,400. Surgeons topped the list with an average net income of $96,000. General practice physicians earned $62,000.

Epinephrine Overdose

A continuing problem

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Epinephrine overdose is neither a rare nor a new phenomenon. A recent Medlars search (1980) revealed English language reports of 31 cases since 1922. We report here a case of epinephrine overdose in a patient when the drug was drawn from a 30 cc. multidose vial of 1:1,000 epinephrine, which was mistaken for a 30 cc. multidose vial of lidocaine hydrochloride with 1:100,000 epinephrine.

Case report

A 34-year-old previously healthy woman was scheduled for a minor gynecologic procedure under block anesthesia. Three to four milliliters of a solution believed to be 1 percent lidocaine hydrochloride with 1:100,000 epinephrine was drawn from a 30 cc. multidose vial and injected paracervically at the start of the procedure. Within 2 minutes the patient noted a forceful, irregular heartbeat at about 60 beats per minute. The vial was examined and found to be 1:1,000 epinephrine, and the scheduled procedure was abandoned. During the next two minutes, the patient noted numbness of the hands and feet (which felt like "balloons"), peripheral vasoconstriction, headache, chest tightness, diaphoresis, and forceful retching.

The palpitations continued for about three minutes, after which the heart rhythm changed to a regular tachycardia (rate not noted). Her blood pressure 8 minutes after the injection was 150/110. The patient's normal blood pressure was 100/60.

Therapy consisted of oxygen by face mask, intravenous infusion of 5 percent dextrose in lactated Ringer's solution, and 5 mg. intramuscular diazepam. By the time the patient arrived at the hospital, 30 minutes after the epinephrine administration, all symptoms had abated. However, severe suprapubic pain developed shortly afterwards, requiring a single injection of meperidine hydrochloride (50 mg.) and promethazine hydrochloride (Phenergan) (25 mg.) intravenously. Blood pressure was reported as 78/16, and pulse 110 beats per minute. Electrocardiogram showed normal sinus rhythm with ST depressions in leads 2, 3, aVL, and V_3 to V_6. Abnormal routine laboratory values included blood glucose 446 mg. per 100 ml.; K^+ 3.5 mEq. per liter; and white blood count 27,700 with shift to the left.

Over the ensuing 30 hours, the patient's blood pressure remained in the range of 60 to 90 systolic despite the infusion of 5,500 ml. of normal saline solution. Urine output during this period was 3,500 ml. Subsequently, both blood pressure and the electrocardiographic changes gradually returned to their baseline values and the patient had a complete and uneventful recovery.

Comment

This patient had classical symptoms of epinephrine toxicity: arrhythmia, hypertension, chest pain, headache, and severe peripheral vasoconstriction. Nausea and vomiting have been reported with epinephrine overdose as well. The electrocardiographic abnormalities, as well as the laboratory findings of hyperglycemia, leukocytosis, and hypokalemia are similarly consistent with the effects of epinephrine administration.[1–4] Abdominal pain is an unusual complication and, in this instance, was no doubt related to a direct effect of epinephrine on the uterus.[5,6]

There is no uniformly-accepted treatment of epinephrine overdosage. Supportive measures should include oxygen and close monitoring of vital signs. The potentially fatal complications, arrhythmias, and severe hypertension, should be treated specifically. Intravenous lidocaine hydrochloride would be the treatment of choice for ventricular arrhythmias, while severe hypertension is most easily treated in an office setting with sublingual nitroglycerin.[7] Should this prove insufficient or ineffective, the use of peripheral vasodilators (sodium nitroprusside), ganglionic blockers (trimethaphan camsylate), or alpha blockers (phentolamine hydrochloride) may be used if appropriate monitoring is available. Treatment of the hypertension may also serve to decrease arrhythmias which are due to acute myocardial ischemia.

The patient's persistent hypotension caused a considerable amount of anxiety for her attending physicians, although it was associated with neither oliguria nor clinical signs and symptoms of volume depletion or low cardiac output. Most likely, this was the result of sustained, low-level beta adrenergic stimulation of the peripheral vessels, leading to vasodilatation. It would seem that there is no urgency to treat this hypotension, so long as clinical parameters remain otherwise unremarkable.

Although deaths have been reported with admin-

TABLE I. Epinephrine; therapeutic indications

Effect	Route	Typical Single Dose
Local vasoconstriction	Subcutaneus, topical	500 μg
Relief of bronchospasm	Subcutaneous, intramuscular	100 to 500 μg
Cardiac resuscitation	Intracardiac	500 μg
Prolongation of action of local anesthetic	Subcutaneous	250 μg

istration of as little as 500 micrograms of epinephrine,[8] Freedman[2] found that the typical minimum lethal dose of the drug is about 4 mg. in humans, with the maximum tolerable dose about 7 to 8 mg. Some typical indications and dosages of epinephrine are listed in Table I.

We question the need for a 30 ml. multidose vial of 1:1,000 epinephrine, which contains 30 mg. of the drug, in the face of the small quantities needed for most clinical indications. Few other commonly-used drugs are packaged so that a single bottle contains many times the lethal dose. An informal survey of surgeons at our institution revealed that only those performing ear, nose, and throat surgery felt that packaging epinephrine in quantities greater than 1 mg. or 1 ml. was in any manner useful to them. We believe that single-dose ampules (containing 1 mg.) offer the benefits of the larger vial, without the hazard of potentially fatal overdose.

Summary

A case of inadvertent epinephrine overdosage due to improper identification of medication is presented and the need for multidose vials of epinephrine is questioned.

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Month in Washington

Experts representing butchers, bakers, candlestick makers, and just about every other human enterprise under the American sun continue to tramp and tread through the maze of details contained in the historic Reagan budget reconciliation and tax cut legislation searching to better understand what's in store for whom.

Future federal spending for health care is pretty clear, however. The budget reconciliation measure cuts $2 billion in health spending over previously projected levels with most of the reductions coming to roost on the Medicaid program.

State governments will have to tighten their belts on the Medicaid program.

Federal matching payments will be reduced by three percent in the fiscal year starting October 1 under the budget reconciliation law. The reduction will climb to four percent in fiscal 1983 and 4.5 percent in fiscal 1984. More than $1 billion in federal payments to the states will be missing.

The Administration's original plan for a flat five percent "cap" on increased federal outlays for Medicaid was scrapped by Congress. The final Medicaid plan followed closely the version of the budget bill approved by the House which voted a three, two, one percent cut over three years. The Senate had proposed a nine percent "cap" and reduction of the federal minimum contribution to 40 percent from the present 50 percent.

Prepared by the Washington, D.C., office of the American Medical Association.

The budget law provides relief for states if they meet certain criteria. The federal cut could be offset by one percent each for operating a qualified hospital cost review program, having an area unemployment rate exceeding 150 percent of the national average and sufficient recoveries from fraud and abuse activities. State-effected savings over a certain percentage also would qualify for upping federal payments.

A controversial Senate amendment that would have repealed Medicaid beneficiaries' freedom of choice of providers was tossed out in conference. Instead, the bill allows states to apply for waivers from the HHS (Health and Human Services) Secretary to eliminate freedom of choice, allowing states to direct beneficiaries to hospitals or physicians.

The law permits states to require individuals who overutilize services to use selected providers, and allows states to limit the participation of providers found to have abused the program.

The Medicaid section of the budget law provides that states in developing their hospital reimbursement payment rates must take into account the situation of hospitals that serve a disproportionate number of low-income patients. The HHS Secretary is required to develop a model prospective payment methodology for inpatient hospital services designed for use in both Medicaid and Medicare.

States are authorized to buy laboratory services and

continued on page 1704

Hypodermic Medication

Early history

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Over the centuries, physicians have experimented with a variety of techniques to introduce medicines through and into the body. One of the earliest methods, known as anointing or inunction, was mentioned in the Old Testament, in Homer's *Odyssey*, and by Aristotle, and was used by nearly all the ancient physicians. However, the lengthy time required to affect the body, the sometimes unpleasant nature of the technique, the irritation produced by friction, and uncertain results made it a less-than-perfect system. Oral administration of drugs also proved uncertain and difficult to use by children, the insane, and those suffering from gastric complications. In search of possible alternatives, early physicians administered drugs by enemas or suppositories, by intraurethral, intrauterine, and intravenous injections, had patients inhale medicated steam or smoke, and even rubbed medicated substances into the tongue. Sectarians influenced by the "magnetic ether" of Dr. Franz Anton Mesmer (1734 to 1815), the Viennese father of mesmerism, employed animal and mineral magnetism, a mode of therapeutics that eventually culminated in Christian Science, phrenopathy, and similar "isms" seeking to replace the *materia medica* with a spiritual medica of mind-cure.

Most physicians preferred to stay within the traditional boundaries of orthodox medicine by exploring alternative inlets into and through the skin by medicated baths, liniments, plasters, cerates, and ointments. More sophisticated techniques included the application of drugs to denuded surfaces, and the introduction of soft medicants underneath the skin. Not until the nineteenth-century employment of the syringe in intradermal injection into the derma itself, hypodermal or diadermal injections into the subcutaneous connective tissues, and parenchymatous injections into the muscular masses, were physicians able to significantly change past patterns of therapeutic treatment.[1–6]

Early forms of peripheral medication

Those physicians who preferred peripheral medication had their choice of several different techniques and a variety of unguents. One form, known as topical medication, could be administered with (epidermal) or without (enepidermal) friction—as when doctors painted the skin with iodine in the treatment of tumors and glandular enlargements, or when chloride of gold and sodium or a mercurial inunction was rubbed into the skin as an antisyphilitic. French physician Jean André Chrestien (1758 to 1840), who had experimented with digitalis to cure dropsy, preferred to identify this latter process as iatraliptic medication. His experiments indicated that friction with digitalis was followed by a "repelled eruption" and cure. Soon the followers of Chrestien were experimenting with Atropia belladonna as an iatraliptic agent in painful cases of neuralgia and rheumatism. In labor, where spasmodic contractions of the neck of the uterus resisted the use of the lancet, physicians were known to rub extract of belladonna on the abdomen. Belladonna was also popular in the reduction of hernia, spasms of the bladder, and for obstinate constipation.[7,8]

Yet another technique consisted of applying a medicant to the denuded derma, such as spreading morphine over a blister wound. Although identified by some as dermal medication, Antoine Lembert[9] (1802 to 1851), A. J. Lesieur,[10] and Fernand Berlioz[11] of Grenoble preferred to call the process endermal medication; Adolphe-Marie Guber of Paris identified the same method in the 1880s with the term didermic. Lesieur,[10] who published a treatise in 1823 entitled *De la méthode endermique . . .* , recounted 17 cases in which he had successfully used acetate of morphia in the Hospital Cochin and the Bicétre. Lembert[9] claimed equal success at La Pitié in 1826 in treating gastralgic affections attended by perpetual vomiting; Pierre-Adolphe Piorry, M.D., and Armand Trousseau, M.D.,[12] gave tribute to the endermal use of musk, belladonna, *Datura stramonium*, and *Datura hyoscyamine* for difficult cases of neuralgia. In the treatment of intermittent diseases, common ague, and fever, physicians in both Europe and America raised a blister over the epigastrium or one of the lower extremities, and then applied a small quantity of sulphate of quinine.[9–14]

There were any number of variations to the endermic method as physicians chose from an assortment of animal, vegetable, mineral, and mechanical vesicants for producing a blister. Physicians used caustics, cantharides, vapor of ammonia, droppings of wood pigeon, oxgall, flesh of snails, acid of ants, actual cautery, moxa, and even boiling water as they sought to remove the epidermis without producing structural change in the subjacent tissues. Moxa, a popular French method, consisted of cutting a piece of cotton to the size blister desired, immersing the cotton in spirits of wine, laying the strip on the surface to be blistered, and then applying a lighted candle. In actual cautery, physicians heated metal irons by fire or by boiling water; when sufficiently hot, the irons were then pressed against the skin to raise a blister. Once the blister was formed, physicians then applied medicated powders, solutions, or ointments to the denuded area.[15]

As with topical medication, the endermic method had the advantage of not influencing the digestive process; nevertheless, the procedure proved painful since, in denuding the dermis, there was occasional mortification of the part, disfigurement, and, occasionally, despite all the discomfort, no medicinal effect at all. Although the older textbooks recommended the endermic method of therapeutics, it is questionable whether or not much benefit derived from the procedure before the discovery of the active principles of alkaloids.[16]

Beginning in the 1830s, Lafargue[17] of Saint-Emilion and, later, von Bruns[18] carried the endermic method a step further by inoculating the body through and under the skin with powdered medicines using a vaccination-lancet, then by grooved acupuncture needle, and later *par enchevillement* or pellet implantation. Sometimes known as entodermal inoculation or intradermal injection, this method had been borrowed from Edward Jenner's successful vaccination with cowpox virus in 1796. Disciples of Lafargue[17] treated headache by introducing dry injections of acetate of morphine at the point of pain by a sharp vaccination-lancet.[19] Both A. A. Velepeau (1795 to 1867) and Trousseau[12] treated sciatic neuralgia *par enchevillement* by cutting down to the nerve, creating an artificial cavity in the flesh, and inserting small pills of morphine, strychnine, or belladonna.[14,19]

Hypodermic medication

Alexander Wood (1817 to 1884)[20,21] of Edinburgh is credited with first using subcutaneous medication, or the introduction of fluid solutions by injection under the skin. In his published account in 1855, Wood[20,21] noted that his interest originated from reading a work on the nervous system by Valleix (1807 to 1855)[22] entitled *Traité des néuralgies* (1841). Reflecting on the author's treatment of neuralgia with acupuncture needles and with the application of blisters over nerve points sensitive to pressure, Wood[20,21] concluded that neuralgia was a local affection occurring in one of four locations: (1) the point of the nerve where it emerges from its bony encasement, (2) the area where the nerve traverses the muscle, (3) at the peripheral termination of the nerve, and (4) at the nearest approach of the nervous cord to the integumentary surface. As a local affection, neuralgia, Wood[20,21] reasoned that neuralgia could be treated by a local remedy applied directly to the seat of pain.[20–24]

Concurrent with Wood's[20,21] study of neuralgia, an instrument made by Daniel Ferguson of Giltspur Street, London, was employed for injecting aneurysmal naevi with the tincture of iron. In 1853, Wood[20,21] used the Ferguson syringe to inject a naevus on the head of a child with a solution of chloride of lime. It occurred to Wood[20,21] that a similarly constructed syringe might provide the means for treating neuralgia by allowing medicine to pass through the skin to the point of the nerve. The first patient on whom he tested this idea was an 80-year-old woman suffering from cervicobrachial neuralgia and who, being unable to take opium orally, was treated with an injection of 20 drops of vinous solution of morphia (morphine dissolved in sherry wine) on her shoulder where the pain was the most severe.[20,21,25,26]

Wood[20,21] was not alone in his claim to priority. Rynd (1801 to 1861)[27,28] of Dublin announced in 1861 that he had first used the technique in Meath Hospital in May, 1844. Rynd's method consisted of breaking the skin with a lancet before inserting the point of the syringe, and using a solution of 10 grains of morphine acetate in 1 dram of creosote for neuralgia and sciatic cases.[29] Also, Sieveking[30] of London reported that M. Kurzak of Vienna had been the first to use the hypodermic method, carrying out experiments like those of Wood and arriving at similar conclusions regarding the efficacious results of local treatment. Despite these two claims, contemporary physicians gave Wood credit for the initial discovery. The works of Erlenmeyer,[31] Lorent,[32] and Eulenberg[33] made no mention of Kurzak or of Rynd's claim to prior discovery.[34]

Besides the claims of Rynd[27,28] and Kurzak, New York physicians Isaac E. Taylor (1812 to 1889) and James Augustus Washington announced a similar method of injection at the New York Dispensary as early as 1839.[19,30] Their technique, suggested by the Lafargue[17] plan of inoculation, was to puncture the skin with a lancet and then inject fluid with an Anel's syringe. Also, Gross (1805 to 1844)[35] in his two-volume *System of Surgery* (1859) reported the following:

> The operation which I believe I have been one of the first to perform, is executed with a tight syringe, with a very slender nozzle, which is inserted in a puncture previously made in the skin of the affected part, the subcutaneous cellular tissue being torn up with a common probe to make room for the reception of a drachm of solution of morphia, holding in suspension, from .5 to 1.5 grains of salt, according to the exigencies of the case.[35,36]

Testimony from disinterested practitioners supports the contention that both European and American physicians had experimented with subcutaneous injection at about the same time as had Wood. But although other physicians may have used such techniques, none had publicized their method. Thus, to Wood[20,21] and, perhaps, to Rynd,[27,28] should the origin of the method justifiably fall, since they first called its use to medical attention. Not, however, until Hunter[16] of London expanded on the theory did the real value of hypodermic medication become fully appreciated.[37,38]

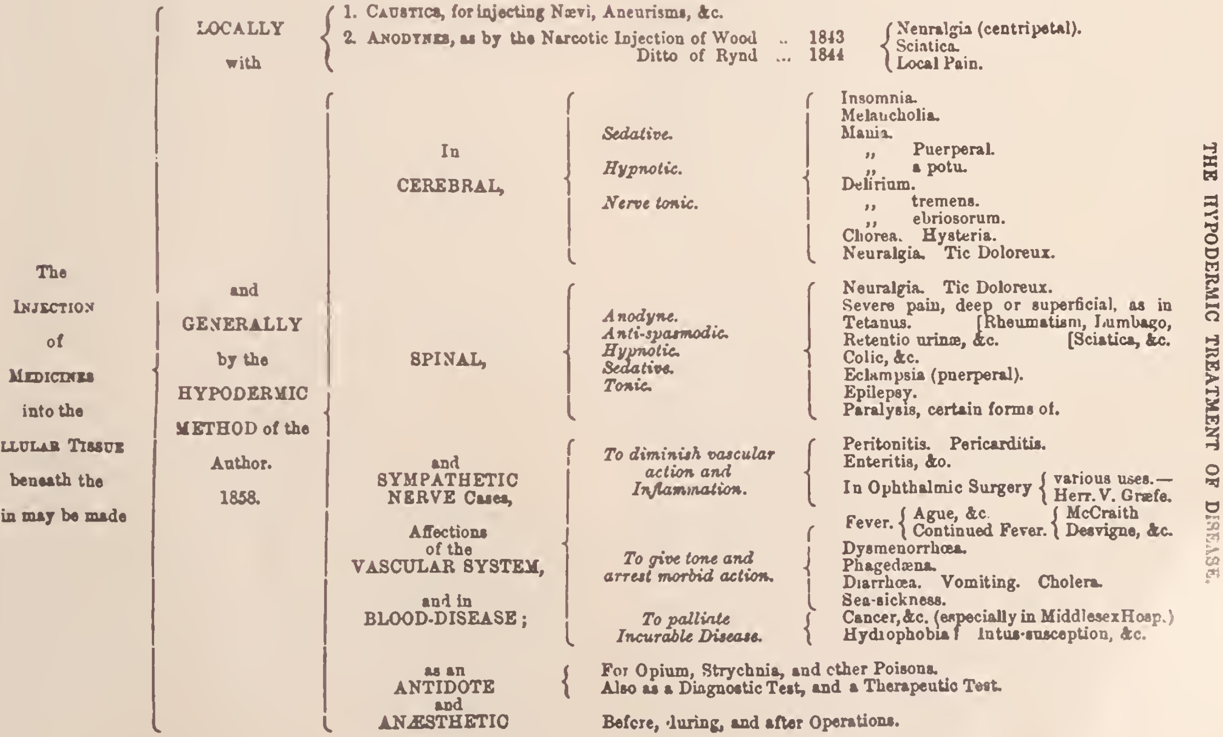
Charles Hunter and disciples

In April, 1859, Charles Hunter, M.D.,[16] surgeon to the Royal Pimlico Dispensary and Lying-in Charity, published an article entitled "Remarks on the Hypodermic Treatment of Disease, With Cases and Experiments." Hunter first experimented with the syringe in 1858, and although using the same technique and plan prescribed by Wood,[20,21] he preferred to identify the procedure with the term *hypodermic*.[38] In the treatment of neuralgia and several cases of rheumatism, tic douloureux, and facial and lingual tics, Hunter[38] found that although patients were helped by the use of the syringe, they suffered abscesses at the site of injection. Seeking to avoid these painful abscesses, Hunter varied the site of the injection, selecting the arm as the most suitable alternative. In doing so, however, he discovered that the effect on the neuralgia was the same, but the discomfort of localization and the abscesses had disappeared. Hunter deduced from his observations that "diseases of any one part of the body could be effectually treated by injection of the cellular tissue of any other part," that localization was not only unnecessary in treating neuralgia, but, because of the tendency to abscess, was contraindicated.[14,39]

On the basis of case studies at St. George's Hospital, Hunter[16] suggested hypodermic treatment for chorea, tic douloureux, *mania àpotu*, and hemicrania. He also recommended injections for delirium tremens, rheumatism, colic, epilepsy, diarrhea, and even tetanus. In each situation, Hunter found that the introduction of a narcotic into the cellular membranes exerted a tranquilizing power through the "great nervous centres," thereby subduing cerebral excitability more rapidly and with more certainty than oral doses of narcotics (Fig. 1).[16]

English physicians and surgeons were quick to adopt hypodermic medication as well as Hunter's persuasive arguments on behalf of his system-theory approach. In 1867, the Royal Medical and Chirurgical Society of London published its "Report of the Scientific Committee Appointed to Investigate the Physiological and Therapeutical Effects of the Hypodermic Method of Injection." [40] Based on experiments carried out on men and animals in both health and disease, personal evidence of experienced medical men given before the committee, and the answers received to a series of questions inserted in medical journals, the committee recognized the legitimacy of Hunter's thesis, that is, that drugs subcutaneously injected were just as effective when introduced at a distance as when injected near the part affected.[40,41]

Despite the committee's supportive remarks, physicians on the continent and in America preferred


The Injection of Medicines into the Cellular Tissue beneath the skin may be made

LOCALLY with
1. Caustica, for injecting Nævi, Aneurisms, &c.
2. Anodynes, as by the Narcotic Injection of Wood .. 1843
Ditto of Rynd ... 1844
Neuralgia (centripetal).
Sciatica.
Local Pain.

and GENERALLY by the HYPODERMIC METHOD of the Author. 1858.

In CEREBRAL,
Sedative.
Hypnotic.
Nerve tonic.
Insomnia.
Melancholia.
Mania.
,, Puerperal.
,, a potu.
Delirium.
,, tremens.
,, ebriosorum.
Chorea. Hysteria.
Neuralgia. Tic Doloreux.

SPINAL,
Anodyne.
Anti-spasmodic.
Hypnotic.
Sedative.
Tonic.
Neuralgia. Tic Doloreux.
Severe pain, deep or superficial, as in
Tetanus. [Rheumatism, Lumbago,
Retentio urinæ, &c. [Sciatica, &c.
Colic, &c.
Eclampsia (puerperal).
Epilepsy.
Paralysis, certain forms of.

and SYMPATHETIC NERVE Cases,
Affections of the VASCULAR SYSTEM,
and in BLOOD-DISEASE;
To diminish vascular action and Inflammation.
Peritonitis. Pericarditis.
Enteritis, &c.
In Ophthalmic Surgery { various uses.— Herr. V. Græfe.
Fever. { Ague, &c. Continued Fever. { McCraith Desvigne, &c.
To give tone and arrest morbid action.
Dysmenorrhœa.
Phagedæna.
Diarrhœa. Vomiting. Cholera.
Sea-sickness.
To palliate Incurable Disease.
Cancer, &c. (especially in Middlesex Hosp.)
Hydrophobia! Intus-susception, &c.

as an ANTIDOTE
For Opium, Strychnia, and other Poisons.
Also as a Diagnostic Test, and a Therapeutic Test.
and ANÆSTHETIC
Before, during, and after Operations.

THE HYPODERMIC TREATMENT OF DISEASE.

FIGURE 1. Charles Hunter's outline of local and general use of hypodermic method.[16]

to debate Hunter's theory for a longer period, believing there must be strong evidence to argue why the point of the syringe ought not to be put into the spot closest to the pain. Béhier (1813 to 1876),[42] who was identified by de Bellesme[43] as the "vulgarisateur" of the syringe in France, adopted the Wood method and pointedly disputed Hunter's assertions concerning the value of distant injections. Also, the early experiments of Lembert[9] and the later work of Eulenberg[33] and A. Denis suggested that the site at which the injection was made exercised a significant effect on the absorption rate of the drug and, thus, the impression made on the system.[16,36,42–45]

Although Taylor and Washington had experimented with hypodermic medication in the late 1830s and 1840s, Fordyce Barker (1818 to 1891) of New York was reputedly the first American physician to introduce a version of the Ferguson syringe in 1856. A year later, Barker's associate, George Thomas Elliot, employed the hypodermic method of medication in the Bellevue Hospital and later commissioned the first American instrument, manufactured by George Tiemann and Company.[37,46–50]

In one of the earliest reports published on hypodermic medication in the United States, Robert White[48] of Boston predicted that the syringe would bring an end to the uncomfortable blistering effects of the endermic method and "produce as great a revolution in the healing art, as the electric telegraph has done in the slow coach system of our ancestors." White[48] first employed the syringe in a case of delirium tremens when he dissolved a grain of morphine in water, made a puncture with the lancet, employed a small penknife to extend the puncture, and then introduced the syringe. Another early supporter was Rappaner (1825 to 1892)[49] who wrote on hypodermic medication in the *Boston Medical and Surgical Journal* in April and May, 1860. He also published other remarks in 1862, and in 1865 appeared his "Hypodermic Injections in the Treatment of Neuralgia, Rheumatism, Gout, and Other Diseases." [48–51]

Technology and syringes

The first syringes were crude in construction, consisting of glass, metal, or even hard rubber (vulcanite) barrels, with mountings of metal or rubber, and secured with leather packing. Lacking a sharp cannulated needle-point, physicians were forced to make preliminary incisions with lancets or solid steel spear-points (trocars) before inserting the blunted tip of the syringe. Rynd's[27,28] retractable trocar, manufactured by Weiss of London (Fig. 2A), introduced solutions under the skin by the force of gravity. Rynd's[27,28] published description of his instrument in 1861 notes the following:

> The canula (A) screws on the instrument at (B); and when the button (C), which is connected to the needle (F), and acted on by a spring, is pushed up, the small catch (D) retains it in its place. The point of the needle then projects a little beyond the canula. The fluid to be applied is now to be introduced into the canula through the hole (E), either from a common writing-pen or the spoon-shaped extremity of a silver director; a small puncture through the skin is to be made with a lancet, or the point of the instrument itself is to be pressed through the skin, and on to the depth required; light pressure now made on the handle raises the catch (D), the needle is released, and springs backwards, leaving the canula empty, and allowing the fluid to descend. If the instrument be slowly withdrawn, the parts it passes through, as well as the point to which it has been directed, receive the contained fluid; and still more may be introduced if deemed expedient.[27]

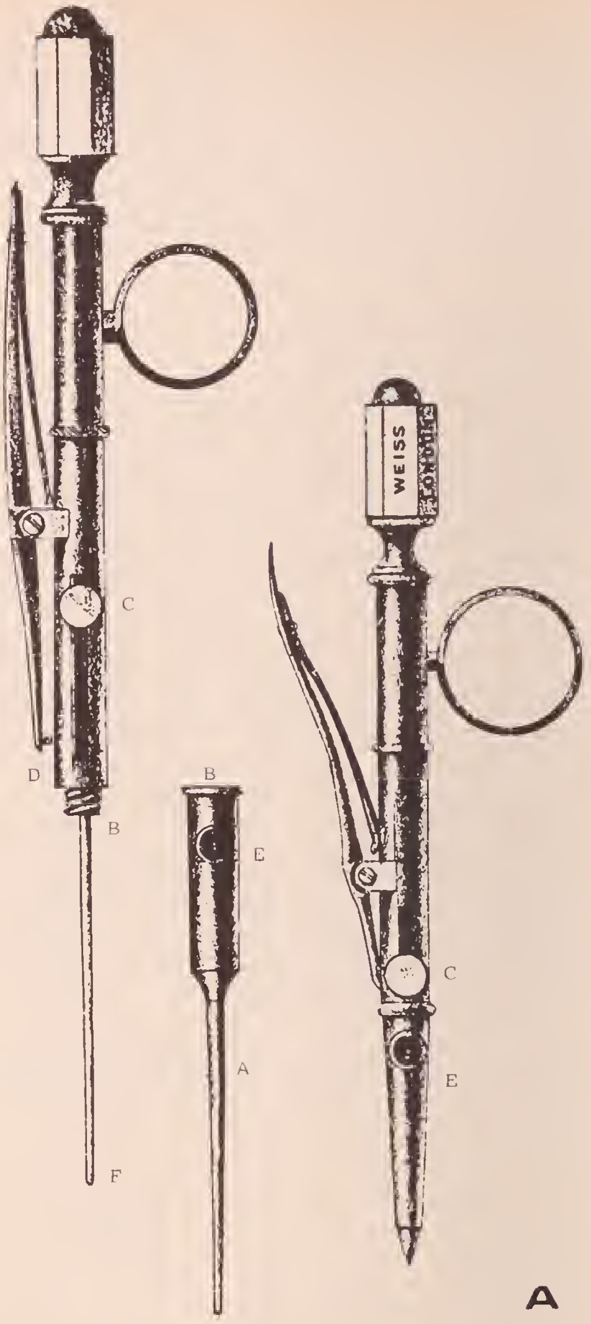
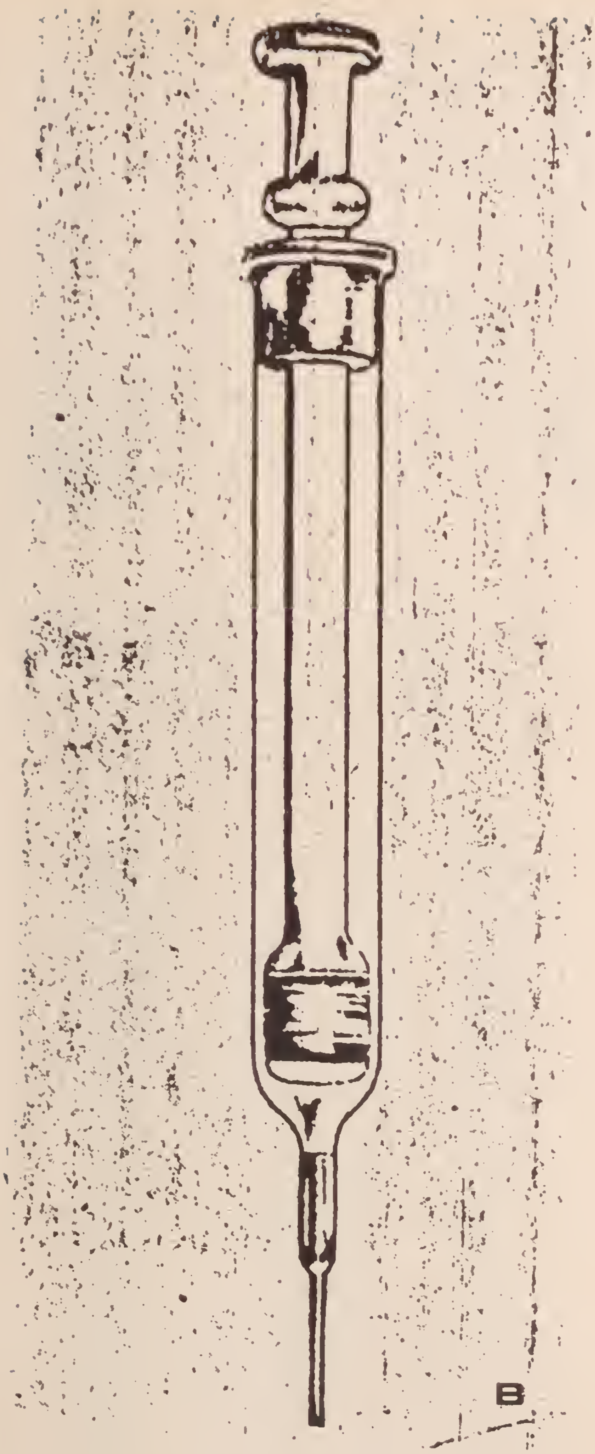


FIGURE 2. (A) Francis Rynd's retractible trocar.[9]



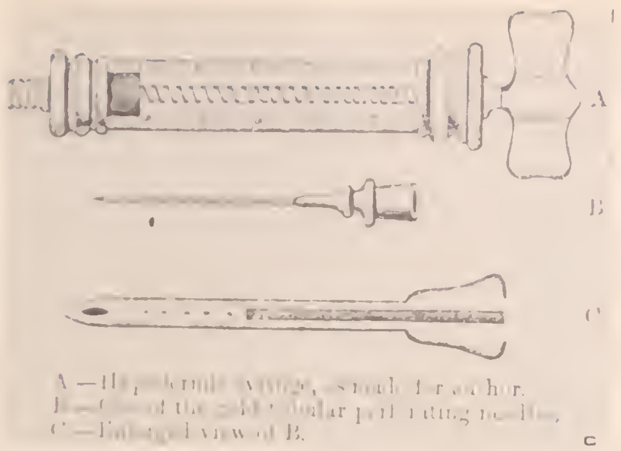


FIGURE 2. (B) Early version of Ferguson syringe.[20,21] (C) Charles Hunter's syringe made by Whicker and Blaise.[16]

One version of the Ferguson syringe, possibly used by Wood,[20,21] was uncalibrated and required a lancet to create a canal for the point of the syringe (Fig. 2B). Wood later employed a revised instrument consisting of a trocar-exploring needle which he inserted into the tissue and then withdrew, leaving the cannula in the wound. He then attached a small graduated glass syringe to the cannula for injecting the solution.[2,29,38]

But it was Hunter,[16] again, who capitalized on the concept. As a consequence of his earlier articles in the *Medical Times and Gazette*, Hunter[16] was asked to write on the mode of injection, the best type of syringe, and observations concerning its use. He responded with a picture of a syringe made by Whicker and Blaise which was a modification of one developed by Savigne in 1857 (Fig. 2C). Unlike earlier instruments, the Whicker and Blaise syringe (later recommended for use by the Royal Medical and Chirurgical Society's Committee on Hypodermic Medication) consisted of a glass barrel with silver fittings, with a piston designed to work with a screw rod, each half-turn expelling a half minim of fluid.[16]

Pravaz[52,53] of Lyons, who developed a keen interest in the treatment of aneurysms and naevi, discovered a method of injecting solutions of perchloride of iron into the lumen of an aneurysmal sac by way of a device consisting of trocar, needle, and platinum syringe which he commissioned from Charrière of Paris. The Pravaz syringe as modified by Béhier[42] became the model most copied by later instrument makers. It consisted of a glass barrel, screw-driven piston, and needle; each complete turn of the screw injected two minims of fluid. Another widely used instrument was the Mathieu syringe known as the "decimal hypodermic syringe" because it was graduated according to the French metrical system. The syringe of M. Delore of Lyons and also constructed by Mathieu was designed with "wings" which helped to stabilize the instrument at the moment of injection (Fig. 3A). This design became a common attribute of many subsequent instruments.[36]

In Germany and France, Luer's instrument, made popular by Eulenberg, consisted of a semicylindrical piston-rod with a graduated flat side, and optional use of set-screw to control the amount of injected fluid. It, too, became a standard model for European instrument designers.[36] In America, Bartholow

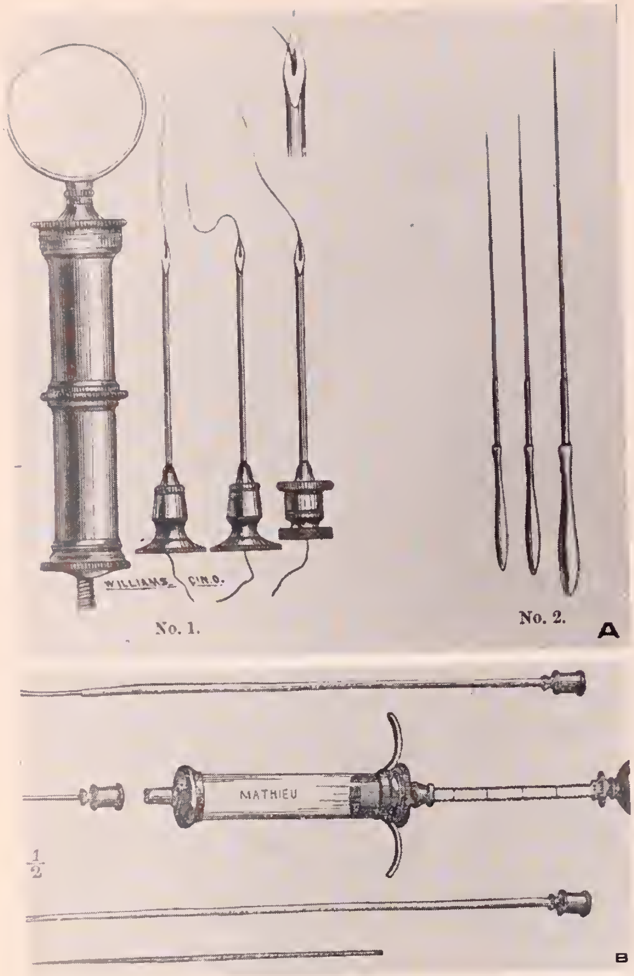


FIGURE 3. (A) "Wing" design of Delore made by Mathieu.[36] (B) Bartholow syringe used in the United States.[34]

(1831 to 1904)[34] designed a syringe made of silver, which held 30 minims (Fig. 3B). He described the instrument as follows: "It contains two silver needles of different sizes, and also a trocar, which screws on to the barrel. The needles are somewhat lancet-shaped and readily perforate the skin. The piston does not work with a screw; it is packed with leather and accurately fits the barrel." Bartholow also introduced "rimmers" used to clean the needles of impurities.[34]

Although physicians preferred the piston-operated syringe, there were those who objected to piston shrinkage and chose instead the rubber nipple of a medicine dropper, which they tied to a needle as a substitute for the barrel and piston.[54] Physician J. Ward Cousins[55] of London was responsible for the development of a useful "hypodermic injector" consisting of an elastic measuring ball and an injecting syringe; the balls were of different sizes, each ball holding a specific quantity of fluid (Fig. 4A). "It is safe, cheap, and handy," commented one physician, "and is the only syringe that ought ever to be left in inexperienced hands."[55,56] Because it was

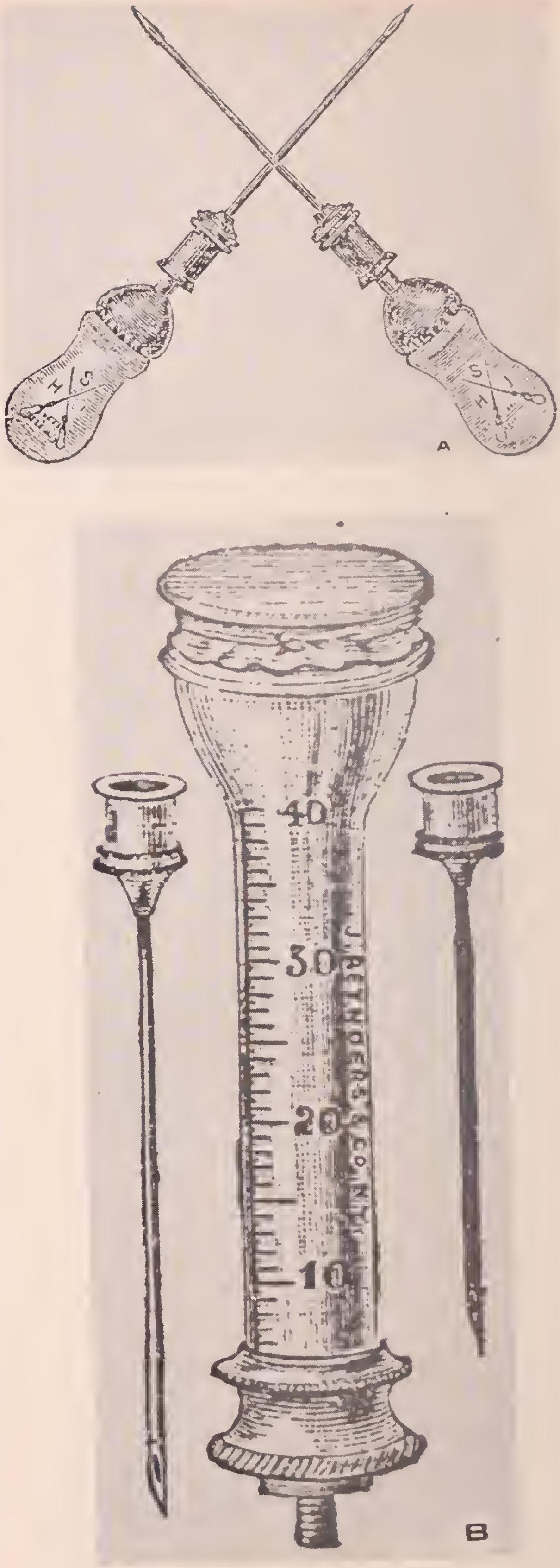


FIGURE 4. (A) Hypodermic injector of J. Ward Cousins of London.[55] (B) Hypodermic injector of Samuel Whitall of New York.[57]

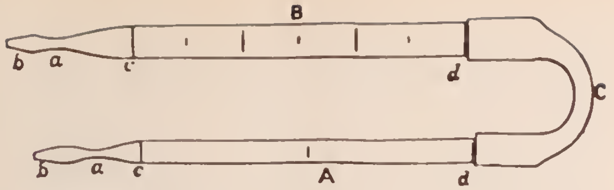


FIGURE 5. Tube injector of U.S. Army Surgeon J. H. Bill.[60]

difficult to tell when and how much fluid was injected by way of the bulb process, a variation developed by Whitall[57] of New York and manufactured by J. Reynders and Company consisted of a piece of rubber tied over the expanded end of a glass barrel (Fig. 4B). By depressing and then withdrawing the rubber with an index finger, the operator was able to charge the syringe to the level dosage desired. To inject medication, the physician then depressed the rubber slowly with the index finger until the injection was complete. Those who supported its use warned against allowing air to enter a vein, but otherwise viewed it as an important improvement over the regular syringe.[56–59]

For those seeking variety, there was a choice of unusual instruments available. Physicians wanting to carry ready-made solutions, for example, had their choice of instruments which attached directly to vials containing premixed fluids, thus avoiding the drug's exposure to air.[36] The tube injector designed by U.S. Army Surgeon J. H. Bill[60] in 1870 consisted of two glass tubes connected by rubber (Fig. 5). Both tubes were graduated into minims and drawn out with an orifice about the size of a pin. Once a trocar was passed through the skin, the physician held one tube end between his lips, sucking in to fill the connected tube with liquid. Then, inserting the opposite end into the tissue, he injected the fluid by blowing. Choice of a particular tube end depended on the type and consistency of fluid.[60]

Uses of hypodermic medication

By the late 1860s, physicians had employed hypodermic solutions of acetate of morphine in cases of hysteria, delirium tremens, rheumatism, gout, threatened miscarriage, and fever. The cancer wards at the Middlesex and elsewhere were administering injections of morphine as part of their regular treatment.[61] Soon other physicians were adding to the list of diseases treated. Scanzoni recommended morphine treatment in puerperal peritonitis, M. M. Dupuy and Jean-Alfred Fournier in tetanus, R. Ellis of Chelsea in hysteria, John Hughes Bennett of London for uterine pains and seasickness, J. Moore of Bombay and Chasseaud of Smyrna in malarial fever, Jonathan Mason Warren of Boston in injuries of the nerves, and Albrecht von Graef in ophthalmic surgery.[62,63]

The success with acetate of morphine lent credence to experiments with other solutions, including evaporated tincture of opium, tincture aconite, tincture cannabis indica, sulphate of atropine, chloroform, woorara, digitalis, and veratrin. Strychnine became a popular antidote in gastralgia (gastric colic) and severe forms of local paralysis, but quinine was strongly recommended in the treatment of malarial fevers, thus avoiding the gastric irritability that so often accompanied its oral administration. Four or five grains injected into the cellular tissue were equal to five or six times that amount taken by mouth. Before long, physicians were administering corrosive sublimate, carbolic acid, ipecacuanha, ergot, conium, arsenious acid, silver nitrate, caffeine, cactin, and even brandy and rye whiskey through the syringe. Nevertheless, through the 1880s, morphine sulphate accounted for nearly 90 percent of the instances in which the syringe was employed.[16,39,64–67]

One chronic complication in effective use of the syringe was in the fungus growths that formed in the aqueous preparations of morphine, atropine, and strychnine. Magendie's solution, which contained 2 gr. of the morphine salt to each dram of water, was subject to the formation of confervae that were apt to irritate the skin and cause abscesses. The same was true for solutions made with cherry, laurel, or eucalyptus water. Initially, physicians attacked this problem by mixing glycerine, tartar powder, chloral hydrate, carbolic acid, and salicylic acids with their solutions; later, physicians got into the habit of carrying powders mixed with a small quantity of atropine. But powders proved inconvenient, since they were difficult to divide, easily spilled, and time consuming to prepare.[68]

Physicians next turned to the use of patented gelatin disks containing premeasured amounts of drug, which were prepared by dissolving them in a few drops of distilled water. Despite their recommendation by Samson, Savory and Moore, Wyeth, and by Cian of Venice, the disks never became popular. They were difficult to dissolve and occasionally irritated the tissues. Moreover, the fact that the disks were patented effectually prevented their extensive application by the medical profession.[69,70]

Compressed hypodermic tablets became a successful substitution for the gelatin disk in the 1880s. Invented by Robert M. Fuller of Philadelphia in 1878, the tablets were dispensed in small glass tubes, convenient for carrying in hypodermic or pocket-cases. Physicians thus had available powerful remedies, tucked away in sufficient quantities, but able to be utilized almost immediately.[69,70] When preparing the tablets for use, physicians were urged to use only distilled water, to heat over a flame, not in the palm of the hand, and never to scorch the drug when heating. These precautions taken, the properties of the tablet would not be impaired, and both the menstruum and the drug would remain free of microorganisms.[71]

Besides what one might identify as normal hypodermic usage, Buxton[72] of Maine extended the technique by introducing potassium iodide through the parietes of the abdomen directly into the liver.[72] In 1869, physicians Menzel and Perco announced the subcutaneous injection of fat under the skin of a dog. Six years later, Drueg demonstrated the first practical application of the principle when he injected olive oil subcutaneously into an insane patient who had refused to eat. The oil provided sufficient nourishment and, at the end of a month's treatment, the patient resumed eating. In 1876, James T. Whittaker of Connecticut reported the successful use of subcutaneous injections of milk and beef extract for a patient suffering from a gastric ulcer[73]; the injections were given every two hours for three days. Because the milk and beef extract were not borne well by the skin, Whittaker substituted cod-liver oil, giving 2 drams every two hours for several days. John Shoemaker[73] of Philadelphia employed castor oil mixed with an equal quantity of oil of sweet almonds for serious cases of constipation; he also prescribed hypodermic injections of cod-liver oil around the neck to reduce enlarged lymphatic glands.

Comment

With its introduction and rapid assimilation by physicians in Europe and America, and the improved apparatus and pharmaceutical preparations that accompanied its application, the hypodermic syringe enjoyed a level of medical and public acceptance seldom reached by other therapeutic techniques. In part, the popularity of the syringe derived from the rapid action of drugs given subcutaneously and from the certainty of the effects over more traditional methods. Unlike other forms of drug administration, the disadvantages were few, with most difficulties the result of unsophisticated technology or ignorance of asepsis rather than of any inherent defect in theory or rationale. Imperfect or dirty instruments, overdoses, lack of proper procedure, and the peculiar idiosyncracy of patient to drug were the more typical—and certainly more easily remedied—difficulties in handling the syringe.

The syringe had a direct effect on developments in the *materia medica.* "Had it not been for the invention and introduction of the hypodermic syringe," wrote George Servoss in 1914,[59] "it is very probable that many of our biological products, such as the antitoxins, bacterins, or bacterial vaccines and substances of this character would never have been brought forth, as it is a known fact that many of these substances become inactive when exhibited by way of the alimentary canal, but are highly active when introduced subcutaneously, intravenously or thrown into the spinal cavity." The whole field of anesthesiology was significantly enhanced with the use of the hypodermic syringe, since it permitted the use of obtunding drugs in both local and general form; it also reduced the likelihood of operative and postoperative shock, and reduced the necessity for general anesthesia in many minor operations.[59]

The syringe's most significant improvement over alternate forms of medication came in those cases where the stomach was unable to retain anything or where the extreme prostration or collapse of the intestinal canal prevented proper absorption of medicinal agents, or at least made their absorption uncertain. It also allowed the physician to pursue remedial efforts when the patient had reached a level of insensibility or coma and was unable to participate in his own treatment. The syringe also provided an immediate avenue in cases in which pain was so severe that instant relief was imperative or where both local and constitutional effects were quickly needed. With its adoption came a successive series of changes that, over time, brought new landscapes to therapeutic theory and practice.

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The Retarded Adolescent's Future

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Mental retardation is best understood as a developmental pathway which represents a variation of human behavior and functioning, rather than as an abnormality in the accepted clinical sense.[1]

All retarded individuals experience, at the very least, adjustment problems. This concept is recognized by both the American Association on Mental Deficiency[2] and the American Psychiatric Association,[3] whose definitions of mental retardation stress not only subaverage intellectual functioning but also the concurrent deficits in adaptive behavior. Thus, if an individual is adequately adapted to his environment he cannot be called retarded, irrespective of his I.Q. (intelligence quotient).

The prevalence of mental retardation is 3 percent in the school-age years, but only 1 percent in the adult population, a marked decrease, the reasons for which will be addressed later. Seventy-five to 85 percent of all retarded individuals are mildly retarded (I.Q. 50 to 70). It is essentially this large group, some five million people in the United States, which is being discussed. Thus, while certain generalizations can be made about the mildly retarded, one must always remember that there are wide variations between people in the same I.Q. range, and even between levels of development of different functions in the same individual.

Normal passage from adolescence to adulthood

The normal passage from adolescence to adulthood can be viewed from both psychologic and societal perspectives.[4]

Psychologic issues. Ideally, adolescence is resolved through a process of flexible experimentation resulting in maturity, which implies a relatively stable mental and emotional equilibrium. Included under the concept of maturity are the crystallization of a reintegrated separate identity, with independence from one's family of origin and a redefinition of the relationship with one's parents, ego mastery, and a shift to higher-level defenses, the capacity for intimate relationships and to give as well as to receive love and nurture, the ability to apply abstract thinking to problem solving, and a realistic orientation to the future.

Societal issues. Two sets of criteria define adulthood in our society. Status criteria basically relate to chronologic age, such as the voting age. Function criteria relate to a society's expectations. A young adult is expected to assume responsibility first for himself and then for a mate and offspring, to adopt a definite role at a time when the boundaries between traditional roles are becoming less clear, and to compete for occupational opportunity in a complex technologic society.

Dynamics of the retarded adolescent

The clearest understanding of the mildly retarded person comes about by viewing him from a developmental and psychodynamic perspective. His level of adjustment, the nature and extent of his conflicts, and the quality of his relationships are all determined by the interaction between his developmental deviance and his environment which all too frequently does not take this deviance into account.

The deviant pathway is evident at all levels. Retarded individuals manifest both physiologic and psychologic immaturity. Their limited cognitive ability is evident in their concrete simple thought processes. Ego defenses are primitive, with tendencies to impulsivity and poor controls. One sees rigidity, difficulties tolerating change, and poor judgment. They are passive with a simple emotional life.

Prolonged dependency is characteristic with an increased need for attachments and relatedness to nurturing others and considerable difficulties with separation-individuation. The overall picture is one of vulnerability so that retarded persons are less able to cope with stress and at increased risk for psychopathology. In particular, they are affected by object loss and physiologic events such as puberty or pregnancy. Under such circumstances they may decompensate rapidly, but the hallmark of the retarded is that they also reconstitute quickly.

As this vulnerable, developmentally deviant individual leaves the protective environment of the special educational system and begins his chronologic passage into adulthood, he is confronted with the expectations of the adult world. Such demands can be especially unrealistic if, as is usually the case with the mildly retarded person, he looks quite normal. The basic problem is that adult status is conferred on him when he is clearly unable to assume adult function, so that he is precipitously and prematurely catapulted into adulthood. This critical dilemma becomes very evident if one reviews again a few common expectations of young adults and compares these with the developmentally determined realities pertaining to retarded young adults. The expectations are maturity, independence, ability to apply abstract thinking to problem solving, assumption of responsibility for oneself and then others, and competition for occupational opportunity. In reality the retarded individual is immature, dependent, uses simple concrete thinking, and needs extra support, protection, and guidance.

Retarded adolescent's future

The markedly diminished prevalence of retardation in the adult population has already been mentioned. This reflects the decreased visibility of retarded adults after they leave the special educational system. More specifically, it means that they are no longer identified by professionals as retarded. Clearly, however, they still remain retarded. What actually happens to them? Most retarded adults continue to live with their families as long as possible. It is a truism in the field that "the parents of the retarded seem to live forever." If the important issues, particularly the prolonged dependency and the increased needs for relatedness and attachments to important others, are recognized by those around him, the young retarded adult can be integrated into society as a productive and valuable member. Characteristics like rigidity and the seeking of approval can operate favorably to produce punctuality and loyalty. Such individuals, especially if they look normal, simply blend into the general nondeviant population.

Unfortunately more negative outcomes are possible. His cognitive limitations automatically exclude the retarded adult from many opportunities in our competitive technologic society. He tends to gravitate to the lower socioeconomic group, often in the inner core of cities. Here he is particularly vulnerable to exploitation and victimization. The retarded are frequently the victims of crime. They are also overrepresented in groups like prostitutes, vagrants, and petty criminals. Because they are more often caught, the prevalence of the retarded in the jail population is high. This kind of acting out however should not be seen in traditional psychoanalytic terms. Rather, it is a product of the retarded person's need for acceptance and attachments, expressed as imitation, and affected by his poor judgment. An interesting speculation concerns the vulnerability of the retarded to charismatic leaders. A high percentage of the people involved with cults may well be retarded.

The importance of sexuality and related issues deserves special attention. Prevailing professional attitudes hold that sexual intercourse is acceptable, but pregnancy and parenthood are not. Retarded young adults, according to this view, cannot cope with the responsibilities of marriage and especially of parenting. Sex education, with particular emphasis on birth control, receives a lot of attention. I believe one must be cautious about generalizing to this extent. Retarded individuals, like the rest of us, are sexual beings. Their sexuality however can generate much conflict and even fear in those around them. Certainly the developmental issues and the resultant conflicts already outlined can lead to considerable difficulties for the retarded person who marries or has children, but the scanty research data available by no means identify a negative outcome as inevitable. We may, to some extent, be dealing with built-in prejudice. At the very least, this whole area deserves further careful objective investigation. It is likely that the critical issues relate to the degree of maturity of any particular retarded individual and to the support systems available to him. Any restriction by fiat of the rights of the retarded in this area should be vigorously resisted.

Comments

The relationship between the retarded and the psychiatric profession needs to be re-examined. We are after all trained to evaluate the individual interacting with his environment, to identify his unique conflicts, and to formulate planned interventions based on our assessment. Why then have we, to a large extent, excluded the retarded from our services? The answer may lie in a fundamental misunderstanding of the nature of retardation. Psychiatrists tend to see the retarded as either not experiencing true internal conflict, or as suffering from conflict which cannot be addressed psychotherapeutically. They can identify the impulsiveness and poor controls, and are comfortable dealing with these according to a pharmacologic or behavioral model, but do not tend to look for and address the associated conflicts.

The alternate viewpoint is that the retarded do indeed experience developmentally determined conflicts which are readily apparent particularly at times of physiologic change, in real or symbolic object-loss situations, or when unrealistic demands are made of them. These conflicts determine their behavior and adult outcome and can be identified and addressed by our specialty, *provided* we take into account the cognitive limitations which determine their style of communication. Psychotherapy with the retarded individual is not only possible but can be very rewarding if we speak his language. Another important principle of intervention utilizes a disguised strength of the retarded determined by the nature of their object relations. The result of the heightened dependency and increased need for attachments is that once an individual becomes meaningful to a retarded person he is readily internalized as a significant and fixed introject. A long-term psychotherapy aimed at achieving cure is an irrelevant approach to the retarded. On the other hand, a long-term important relationship is highly relevant. In the context of continuing prolonged availability to the retarded and their families, brief planned psychotherapeutic interventions can occur when needed. At the same time an understanding of the nature of retardation will often allow us to predict the situations that will be stressful. Such an approach implies that we accept the dependency and use it constructively, instead of trying to resolve it in the interest of achieving an autonomy that is beyond the reach of the retarded person.

Conclusion

The challenge presented by the retarded adolescent's passage into young adulthood is different. It demands our compassionate understanding and attention.

If, however, we recognize the issues involved, not only do we have a lot to offer the retarded individual but, in a profession where personal gratification based on tangible results is often hard to achieve, he has a lot to offer us.

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Advance planning can avert retiree health woes

Retirement does not have to lead to inactivity, loss of self-esteem, and deteriorating health, says Valery A. Portnoi, M.D., in the Journal of the American Medical Association (May 1).

In fact, there is little scientific evidence that retirement has a negative effect on health or satisfaction with life, and it may have a more positive influence than people commonly believe.

Dr. Portnoi, a specialist in geriatric medicine at George Washington University Medical Center, Washington, D.C., suggests that health problems occurring after retirement may have been present but undiagnosed earlier and may have been a factor in the decision to retire, rather than a result of it. He further cites studies which concluded that when physical health, economic status, and daily activity level did not undergo major changes after retirement, subsequent psychological and social problems could not be attributed to retirement per se.

The rate of retirement among persons aged 60 to 69 years has increased steadily since World War II, and the average worker today can expect to spend 19 years in retirement. Careful planning for the retirement period, Dr. Portnoi notes, can bridge the biological, psychological, and social adjustments that accompany aging and can help insure a happy and healthy later life.

Surveys of physicians and academicians who prepared themselves financially and psychologically for retirement indicated that they felt no regret later for their decision to stop working.

Starting ten years before retirement would not be too soon, Dr. Portnoi advises. Preparation should include estimating the changes in income and expenditure that will occur, learning the principles of health and nutrition that apply to older people, beginning a program of physical fitness that can be continued through retirement, and investigating new intellectual pursuits. Intellectual stimulation, Dr. Portnoi reveals, has been shown to be a possible factor in increasing the life span of retirees.

Equally important, Dr. Portnoi stresses, are social activities, because they enhance enthusiasm about life. Maintaining friendships and increasing closeness to the family are critical to satisfactory adjustment in the post-retirement years.

Nursing Home

Place for teaching geriatrics

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The demographic changes taking place in the United States during this century and their impact on health-care expenditures and policies have been given sufficient publicity and are well known. New health priorities evolving from these changes press on medical educators to teach more geriatrics on both undergraduate and graduate levels. It is not that the teaching of geriatrics has been completely omitted until now—medical schools do teach about changes in bodily functions of the aged and do provide instructions regarding specific diseases that may affect the elderly. However, it appears that some of the educational challenges presented by the medical problems of the elderly have not been met in all their dimensions. Indeed, the report on Aging and Medical Education, prepared by the National Academy of Sciences–IOM (Institute of Medicine),[1] submits evidence to show that aging and care of the aged are subjects given insufficient attention in medical schools, residency programs, and continuing medical education courses. The data confirm earlier observations reported by several authors.

The AAMC (Association of American Medical Colleges) admits that "educational settings where a student can follow his elderly patient from the acute-care hospital to a convalescent facility, and later see the recovered patient in an ambulatory clinic, or to learn about the medical concern and social problems of such a patient, are significantly limited in number." "However," adds the AAMC, "there is no shortage of opportunity for learning about the care of the acutely ill, elderly patient."[2]

Obviously, medical wards must deal with acute illness in all age groups. Yet, the mere fact that patients over 65 are seen by the medical student or resident in acute-care hospitals does not mean that appropriate care of the aged is being taught.[3] Acute-care hospitals are geared to care for short-term, acutely ill patients, who are receiving a specific treatment for a specific condition. In the elderly, the acute condition is usually superimposed on and compounded by chronic ailments, which are given little attention in the acute-care ward. Here, only the acute stage of illness may be considered instructive for the medical student. The long convalescent stage is believed to add little new information or clinical experience, and, furthermore, many problems of the elderly are not purely medical. Yet, in the acute ward there is little time and not enough staff to explore the socioeconomic, cultural, and other aspects relevant to the care and treatment of the diseased elderly individual.[4] The presence of at least one good clinician, specially qualified in geriatrics, in such a ward, as suggested by Leaf,[5] may not be enough to improve the teaching of geriatrics. Even a team of well-trained and dedicated physicians may often need the expertise of social workers, psychologists, and other nonmedical professionals.

What can be learned in long-term care facility

The ideal training environment would be a well-interrelated system of several services. First, there should be a nursing facility, with its physical therapy and rehabilitation sections, for the severely disabled, the terminally ill, and for those who, because of socioeconomic or other reasons, cannot be taken care of at home. Second, there should be an acute-care division or facility in that system. In case of acute illness and severe exacerbation of a chronic condition, the elderly could easily be referred to this section for diagnostic and intensive-care procedures. Third, an ambulatory clinic is necessary to follow up and assist the convalescent process in patients who have completed their recovery and rehabilitation and have returned home. Fourth, for those who cannot ambulate, home visiting services may perform some of the functions of the outpatient clinic. Fifth, a day hospital that combines medical and social activities may be developed. Following his patient, the medical trainee would see older persons in positive settings such as home, outpatient clinics, and day hospitals, as well as the other end of the spectrum in nursing homes and chronic-disease hospitals.

The teaching potential of such a system of geriatric services has been recognized both by the IOM[1] and the AAMC.[2] It has been demonstrated by the teaching experience of several such institutions in this country that this potential can successfully be put to use.[6]

It should be reasonably expected that exposure to such a broad spectrum of care may result in changes of attitude toward the problems of the elderly, in general, and the treatment of chronic illness, in particular. "In geriatric medicine, the most important task is still the need to alter the attitude which people have to old age."[7] This opinion, voiced in Great Britain some years ago, is not any less valid here in the United States where "ageism," that is, the prejudice against people because of their age, is not an uncommon phenomenon.[6] The negative attitudes existing among medical professionals and students have been well documented.[8,9] Even if things appear to begin changing, they change slowly.[10,11] There could be no doubt that the setting itself, the attitudes and behavior of all the staff, and the role models provided have their positive or negative influence on the formation of the students' attitudes. A recent study of a group of fourth-year medical students indicates that a successful learning experience may have a beneficial effect, even on those who, initially, hold unfavorable expectations regarding the chronically ill.[9] On the other hand, indifference or even an alien attitude (as in some medical centers) to the problems of geriatrics, certainly will not reinforce attention to geriatric patients and their specific dilemmas.

If the term "technology" is not used to refer only to "hardware," to instruments, tools, and machines, and if technology is also a way of organizing the labor of medical diagnosis and of health care, then, no doubt, gerentology may claim that it uses a specific technology—the team approach. This approach can be and has been used in other areas too, but, in the field of geriatrics, it is a *conditio sine qua non.* As has been previously pointed out, the medical diagnosis of elderly ill persons is only one part of many other problems. To better comprehend these problems, as well as to reach a decision for their solution, necessitates a balanced input of information, ideas, and skills coming from several members of the team and from members with different professional backgrounds. Too often, neither the medical student nor the resident has the training nor the inclination to be involved in the complicated team-oriented planning for his patient. Care for the elderly, whether in the outpatient clinic, the nursing home, or the hospital for the chronically ill, is an excellent area for the student to become skilled enough to participate in, contribute to, and, when appropriate, lead the interdisciplinary professional team taking care of elderly patients' problems.

There are other important matters to be studied. The uncertainty about differences between "normal" and "pathologic" aging is unlikely to be resolved until more data of basic, clinical and epidemiologic research are available. Normal at one age may be quite different from normal at another. At this stage, we have limited knowledge about changes related to normal aging as opposed to those accepted as signs of morbidity in old age. The situation becomes extremely complicated when one considers the fact that noxious (pathogenic) agents act on already changed (normal aging) biology. The outcome (disease, disability) is sometimes more severe, the course more protracted, and recovery more difficult. Another result of this interaction between diminished vital reserve and pathogenic factors is the multiplicity of illnesses characteristic of old age, and the nontypical and sometimes puzzling combination of signs and symptoms. All this, in its turn, influences the process of history-taking and physical examination. They are different mainly because they aim to uncover a background that is broader than the one sufficient for the understanding of a transient episode of acute illness. Both history-taking (interview) and physical examination of the elderly are more time consuming; they may need repetition and will require more patience. Also, allowances have to be made for the possible sensory loss, memory impairment, and easy fatigability of the patient. It is important that during history-taking and physical examination an assessment of the functional loss—present or predictable—is made. Full recovery, often taken for granted in the case of the young adult, may not be attainable with the geriatric patient.

Last but not least, the nursing home and the hospital for the chronically ill present more problems involving ethical consideration. Exposure to these problems and participation in their discussion may be an important factor in the formative years of the physician's training and practice.

In addition to new attitudes and concepts, there is a lot of the so-called "hardcore subject matter" that can be learned in a multilevel care facility. There is an abundance, a veritable "gold mine" of clinical examples. The major medical diagnoses usually encountered are dementia, S/P (sequelae of) cerebrovascular accident, diabetes mellitus, hypertension, arthritides, arteriosclerotic heart disease, chronic urinary tract infection, chronic alcoholism, and S/P fractures. More rare clinical pictures, such as Huntington's disease and Steinert's myotonia atrophica, may also be seen.

The following disabilities frequently are met: paralysis of one or more extremities, loss of one or both (lower) limbs, sensory deprivations, speech impairment, incontinence, disorientation, and confusion. Usually, less than half the patients ambulate without assistance, but a considerable number are wheelchair bound; the use of a cane, walker, or prosthesis is frequent. Few are totally bedridden, but the majority need help in activities of daily living (ADL).

There is a good opportunity for the student to learn how some of the disabilities can be alleviated by making use of eyeglasses, hearing aids, braces, artificial limbs, and other means.

The opportunity to discuss factors contributory to illness, such as poor hygiene, inadequate food, and alcohol abuse, is often present.

Another area to which the trainee is introduced is that of epidemiologic probabilities, that is, the incidence and prevalence of disease and disabilities that accumulate or develop in later years.

The teaching process relies on rounds, lectures, interdisciplinary discussions, and clinical internship. The new content that is conveyed through these conventional means is the unique experience with elderly, chronically ill people, and the specific avenues of approach for understanding and solving (or alleviating) their problems.

Comment

The fragmented way in which medical schools in the United States teach geriatrics today does not lead to a uniform knowledge of the basic principles and skills required for the understanding of the problems of the elderly ill and for their resolution. Nowhere is there a time and place for the future physician to integrate the fragments of geriatric theory and practice (acquired through lectures and rotations in acute-care wards) into one organized system.

This type of teaching has little relevance to the tasks that students will later have to perform in caring for the chronically ill. In this respect, the academic medical community has shown lack of substantial interest and has contributed little input. More is needed to make education of geriatrics relevant to current needs. Adequate methods are needed to translate objectives and curricula into an effective learning process.

Education and training in geriatrics are not sufficiently integrated with the development of health services. In isolation, health manpower development has no meaning; isolated, it fails as a factor for promoting effective health care. Health care services also do fail when there is no input from the educational system.[12] This, in the realm of nursing homes, is a case in point.

A letter to the editor that appeared recently in the *Annals of Internal Medicine*[13] emphasized the fact that the medical profession has neglected the nursing homes and has failed to guide and support the nursing home staff. This letter confirms what series of subcommittees' hearings in the period 1969 to 1976 observed, and is all the more valid today.[14]

"Physicians have abdicated their responsibility for nursing home patients"[14] because medical schools have done so. More and more physician time is occupied by tending to the elderly, yet thousands of medical students are graduated without ever having entered a nursing home or taken courses in the special health problems of the elderly.

The use of continuous-care facilities as a field for the teaching of geriatrics, in addition to introducing a new pedagogic method, will also contribute to the implementation of the "integration of manpower development with health care development" concept.[12]

"Why can't the nursing home be made part of the formal medical-care system?" asks Thomas C. Fleming, M.D.,[15] and thus be upgraded and be utilized for teaching purposes, he implies.

The director of the National Institute on Aging, R. N. Butler, M.D.,[16] is known to have proposed the concept of the teaching/research nursing homes as a counterpart to the teaching/research hospital. Ideally, there should be an affiliation with one or more nursing home facilities at every one of the 126 medical schools. Dr. Butler sees this as a logical means to "pull nursing homes into the mainstream of medical care education."[16]

The IOM report explicitly emphasized the desirability for physicians in training to have some experience in continuous-care programs.[1]

The AAMC supports the idea, but would prefer the medical schools to develop their own chronic-care settings.[2]

On a national scale, the economic implications of such plans would be staggering, but much could be accomplished, as Dr. Fleming suggests, on a smaller local scale.[15]

When resources are limited, imagination, innovative approaches, and even improvisations are sometimes needed. It would be financially easier to "pull nursing homes into the mainstream of medical education" gradually, one by one at the local level.[15]

As a start, a number of long-term care facilities may be selected for the teaching of geriatrics. No doubt, for teaching to be meaningful and responsible, these institutions must be of high quality and appropriately oriented to education; in the beginning, they may need some guidance and help. However, once upgraded, it is reasonable to expect that they will successfully carry out their teaching role.

The benefits of such an approach would extend to society—to both its health-care system and its medical manpower educational system.

Summary

Until now, the teaching of geriatrics has been given insufficient attention in medical schools, residency programs, and continuing medical education. What is offered now does not seem to meet all the educational challenges presented by the medical problems of the elderly. Teaching of geriatrics in acute-care facilities is inadequate; nursing homes, chronic-disease hospitals, and geriatric outpatient clinics are better training settings. New attitudes toward the aged, new approaches to geriatric care, the characteristics of morbidity in advanced age, the interplay of physical, psychosocial, and economic determinants in the production of disease and disability, the need of team approach for understanding and resolving (or alleviating) them—all these could be better integrated in programs of rotations and residencies in continuous-care facilities. The utilization of such facilities for the teaching of geriatrics means introducing a new pedagogic method that will have beneficial effects on the health-educational and health-care systems of society.

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Death associated with so-called Chinese herbal remedies

Strong prescription drugs have been found in so-called Chinese herbal remedies marketed across the country, and there has been a death associated with their use, the FDA (Food and Drug Administration) warned in December.

FDA said its laboratory tests have shown doses of indomethacin, an anti-inflammatory agent with many serious side effects; hydrochlorothiazide, a potent diuretic; and chlordiazepoxide, a tranquilizer, in these products.

The labels on the products list only herbal contents.

People already on prescription medications for arthritis may be at greater risk from those products, because of the possibility of overdose or drug interactions.

FDA officials said people taking the herbal products should stop and, if they are taking other medication, should see their physician.

FDA is asking state and local officials, the U.S. Customs, U.S. Postal Service, and the State Department for help in destroying existing stocks of these products, and preventing them from entering the United States and keeping them from unsuspecting consumers.

In August, FDA's Atlanta District Office received a report of the death of a 70-year-old woman who had been taking the herbal remedy "Chuifong Toukuwan." * She was reported suffering from rheumatoid arthritis. The product was received through the U.S. mail from the Sun Wuen Trading Co., Ltd., 44 Lee Chung St., Sze Hing Loong, Industrial Bldg., 9th Floor, Flat B, Chaiwan, Hong Kong.

FDA's investigation has revealed that the "Chuifong Toukuwan" taken by the deceased contained indomethacin.

In October, FDA received a report from New York of major side effects in another user of "Chuifong Toukuwan." The "Chuifong Toukuwan" in the New York case contained hydrochlorothiazide.

FDA's subsequent nation-wide investigation revealed that "Chuifong Toukuwan" (sometimes spelled differently) originates from several sources and is available throughout the United States. The products usually come in via air mail in small shipments to health-food stores, Oriental food stores, and novelty shops, and occasionally directly to the consumer.

The products are sometimes peddled door-to-door.

They are hard, round black, or brown pills, approximately 1/4 inch in diameter. They are packaged in cellophane bags of 60 each and in glass bottles, all of which may be enclosed in bright colored blue, green, orange, or gold cardboard boxes. Pictures appear on these boxes depicting men and women suffering back and leg pains.

Analysis of these products by FDA laboratories in Atlanta, Dallas, Los Angeles, New York, and Philadelphia disclosed lead and cadmium, as well as indomethacin and hydrochlorothiazide. A private laboratory in the Boston area found indomethacin and chlordiazepoxide in the pills it analyzed.

The labeling for the "Chuifong Toukuwan" may or may not contain English. Typical English labeling suggests the products for arthritis, osteoarthritis, rheumatism, headache, anemophobia (fear of high winds), paralysis, back neuralgia, bone pain, acute or chronic neuralgia, and other pain caused by rheumatism. Only herbal ingredients are listed.

Besides Sun Wuen's "Chuifong Toukuwan," the herbal remedies tested and found to contain prescription drugs are the "Long Life Brand Nan Lien Chuifong Toukuwan" and "Long Life Brand New Formula Chuci Fong Tou-Gu Wan" made by the Nan-Lien Pharmaceutical Company of the same Hong Kong address as Sun Wuen, and the "Shou Sing Brand Chuifong of the Toukuwan" Shou Sing Pharmaceutical Co., Taipei, Taiwan.

While the names of the products are same or similar, the relationship of the Hong Kong and Taiwan firms is not known.

In 1974, "Chuifong Toukuwan" and similar products were involved in one death and hospitalization of three other persons in the San Francisco area. There was also one hospitalization in Minneapolis. At that time an FDA investigation and laboratory analysis disclosed that the pills used contained phenylbutazone and aminopyrine. Additional drugs found in 1974 are methyltestosterone, prednisolone, diazepam, chlorozoxozone, and acetaminophen.

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* Chuifong Toukuwan is pronounced "chewy-fong too-koo-wan."

Medical Examiner's Authority

Challenges to perform autopsies

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The right to perform an autopsy exists only when authorized by law or whenever and only as far as the surviving spouse or the next of kin of the deceased authorizes it. The public welfare requires governmental intervention for the protection of life and health and for the discovery of crime connected with the death of a person. The authority to perform autopsies on medicolegal cases is usually vested in medical examiners or coroners, and the scope of such authority is specified in the statutes of a given jurisdiction. The private right to prevent an autopsy is subservient to governmental interest as far as is deemed necessary.[1]

The authority to perform autopsies has been challenged repeatedly. The challenges may be made directly by the next of kin or indirectly by the limitations inherent in the law itself.

The direct challenges to the legal right of medical examiners to perform autopsies have invoked one or more of the following arguments: religious tenets forbidding autopsies, mental anguish and grief to the next of kin, and the right of the next of kin to possession of the decedent's body. In these instances, the interpretation of the local law governing the functions and duties of the medical examiner is often the essence of the matter in dispute. A law is never finally interpreted until it is challenged and the matter brought into court. The observance of religious beliefs is an important part of one's life. Securing the peaceful repose of the body of a deceased spouse or relative is a most valuable right, and a medical examiner as a public official should try in every way to accommodate the wishes of the family; he should not abuse his power by enforcing an unnecessary autopsy. But if in the opinion of the medical examiner, the performance of an autopsy is essential in an investigation, he or his office should undertake a sincere effort to explain to the family why the autopsy has to be done. This requires a high degree of understanding and sensitivity on the part of the medical examiner. More often than not, the family will comply with the medical examiner's decision for an autopsy after an explanatory session. It is only after all such efforts fail that the law must intervene. A blunt and bureaucratic approach will only aggravate the hostility of the family and the public.

The judicial decisions from different courts have been markedly divergent in specific instances involving the interpretation of what was "necessary" or "compelling" to perform an autopsy. Thus, in the matter of *Jackson* v. *Rupp* (Broward County, Florida, 1969),[2,3] the court held that an autopsy performed without permission of the next of kin on an 82-year-old woman who died in a hospital following surgery for a broken hip did not satisfy the statutory provision of the county; this provision permits autopsies when deaths occur in "any suspicious or unusual manner" and as requested by the prosecuting attorney. On the other hand, in the matter of *Cremonese* v. *City of New York* (Kings County, New York, 1966),[4] involving an autopsy performed on a woman whose cause of death was initially certified by the hospital as "peritonitis due to perforated viscus," but whose death certificate was rejected by the Board of Health of the City of New York as being too general, the court of appeals held that the New York City chapter authorizes autopsies on persons dying in "an unusual manner"; it was held that cases of deaths when the physicians in a hospital are unable to diagnose the illness and to determine the cause of death after customary procedures taken in a modern hospital fall into this category. Therefore, the autopsy on the woman was necessary for a protection of public health and for an additional safeguard for hospital care. A lower court judgment for the next of kin was therefore reversed.[4]

In cases involving religious objections, all courts have held, irrespective of any particular decision upholding or denying the legality of an autopsy, that adherence to religious tenets forbidding autopsy is not a sufficient ground per se for the denial of an autopsy. As far as the United States Constitution, and insofar as freedom of religious rights is concerned, the courts have held that the family is free to believe as they choose, but not to practice their religion without certain controls in the interest of the good order, peace, or safety of the state. The family's right to practice their religion was held to be subordinate to the State's authority to investigate an unexpected death. However, the courts also have held that in the absence of compelling reason or genuine necessity, an autopsy may not be performed over the religious, ethical, or philosophic objections of next of kin. Thus, in the matter of *Snyder* v. *Holy Cross Hospital* (Montgomery County, Maryland, 1976),[5] involving an 18-year-old youth who died suddenly and unexpectedly at home while in apparent good health, the court ruled that the interest of the state in determining the true cause of death took precedence over religious objection.[5,6] However, in the matters of *Wilensky* v. *Greco* (Orange County, New York, 1974)[7] and *Weberman* v. *Zugibe* (Rockland County, New York, 1977),[8] the courts held that where there was only the mere desire on the part of the medical examiner to determine the precise cause of death in a body with multiple automobile injuries, in the absence of any criminality and suspicion of foul play, an autopsy was neither necessary nor compelling.

The indirect challenges are made when the ability of a medical examiner to conduct a proper investigation is hampered by the limited scope of authorization prescribed in the law of a given jurisdiction. Unfortunately, the statutes of many jurisdictions provide authority only for the investigation of obviously violent and suspicious deaths.[9] Hence, certain unsuspected homicidal and other types of violent deaths, not externally obvious or suspicious, are not officially investigated. In many states, there is no provision for investigation for sudden or unexpected death. Medicolegal investigation into deaths from industrial diseases and accidents, surgical and anesthetic mishaps, alcoholism and drug abuse, and of unidentified persons may or may not be conducted, depending on existing statutes in a given state or county. The medical examiner's decision to determine the cause of death in an apparently nonviolent case is in violation of the right of the next of kin of the deceased in many states.

In Nebraska, the coroner's authority in medicolegal investigation is limited to the holding of an inquest only on the dead bodies of such persons as are supposed to have died by unlawful means. In Massachusetts, the medical examiner must first obtain an authorization from the district attorney to perform an autopsy; ironically, Massachusetts was the first state to adopt the medical examiner's system in the country (1877). In New Hampshire, the medical referee (the title comparable with medical examiner) must obtain permission for autopsy from the county attorney or the attorney general, except in the case of sudden infant death. In Tennessee, only the district attorney general can order an autopsy when recommended by the medical examiner or coroner, and then only when homicide is involved or suspected.

The fundamental defects in the statutes of many jurisdictions are that they are concerned only with obviously violent and suspicious deaths. The word "suspicion" is a vague one, and it depends largely on the sensitivity of the person who investigates the case whether or not it is to be considered.

The medical examiner must be the primary investigator and have complete control of a case insofar as the postmortem investigation is concerned. Whether or not to include an autopsy in the investigation should be determined by and at the discretion of the medical examiner. The medical examiner's office must be empowered to conduct the investigation independent of any other agency. It is suggested that there be established a comprehensive uniform medical examiner's act to replace the ineffectual and sometimes confusing hodgepodge of laws existing in many parts of this country.

Summary

The medical examiner's authority to perform autopsies has been challenged repeatedly. The challenges may be made directly by the next of kin or may arise indirectly from the limitations inherent in the law itself. As a public official, the medical examiner must exhibit a high degree of understanding and sensitivity toward grieved family members. Local laws governing the functions and duties of medical examiners are often a matter of dispute. The statutes of many jurisdictions provide authority only for the investigation of obviously violent and suspicious deaths. The judicial decisions from different courts have been markedly divergent in specific instances involving the interpretation of what was "necessary" or "compelling" to perform an autopsy. Therefore, it is suggested that a comprehensive uniform medical examiner's act should be established.

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Skin Transplantation

Current status in burn injury treatment

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There are 2.5 million Americans who suffer burn injuries annually, resulting in at least 12,000 deaths.[1] Recently there have been major advances for the treatment of these victims, including (1) earlier, more effective resuscitation, (2) better monitoring techniques, (3) earlier recognition and treatment of smoke inhalation, (4) increased awareness of nutritional requirements, and (5) improved techniques of wound management. In addition, burn centers, capable of providing the vast array of therapeutic services necessary to minimize morbidity and mortality occurrences, have now opened throughout the country.

The burn wound is an open wound, and care for the burn patient involves two main categories of treatment. General support is the first main thrust of treatment. Because the burn wound is an open wound, these patients are at high risk of becoming septic. In addition, the open burn wound allows the loss of proteins, fluids, and electrolytes. The second category of treatment involves closing the burn wound and replacing the devitalized skin with a suitable substitute.

Replacement methods

Autograft. The preferred replacement medium for a patient's burned skin is, of course, the patient's own skin (autograft). In burn injuries of moderate size, early excision with autograft closure is becoming the most popular approach in managing the burn wound. The technique used is called "tangential excision" whereby, using hand dermatomes, layer on layer (0.012 of an inch thick) of nonviable tissue are removed until viable tissue is reached. Primary closure using split-thickness autograft is then carried out.

Unfortunately, and not uncommonly, there is an inadequate supply of autograft tissue; in this situation a suitable skin substitute is essential. This group of patients rarely survives using nonoperative treatment modalities such as surface topical antimicrobial agents.

When faced with a failing organ or devitalized tissue, physicians have historically first searched the animal kingdom or looked to other human beings for a replacement. With time, technology has provided a synthetic substitute to replace the biologic material. In general, these synthetics are more durable and are free from the problems of rejection. They can be mass produced, have an indefinite shelf-life, and are reasonably inexpensive. Joints, heart valves, and blood vessels now have suitable synthetic replacements. However, no synthetic materials exist at this time that can serve as skin replacement.

Homograft. When faced with a massive burn injury where insufficient autograft tissue is available, the first step in patient management consists of excising the necrotic tissue; homograft may then be applied and allowed to heal, a technique that has met with some success by providing a suitable skin covering. In patients with truly massive burn injury, this is the only procedure that has yielded a significant number of survivors. The best results using this technique were reported by the Shriner's Institute in Boston in 1975 where 11 children with massive third-degree burn injuries (70 percent total body surface area or greater) had been treated with major excision, homograft replacement, and planned immunosuppression with ATG (antithymosite globulin).[2] Seven of these children survived and were capable of returning to normal productive lives. The most compatible available family member, as determined by tissue typing, was chosen as the donor. Of the 11 children, 9 received homograft from their mother or father. Homograft survival was maintained for between 30 to 50 days before surgical removal was performed and autograft closure completed. There have been scattered reports from other centers using this same technique, which to date have not yet been confirmed to be of value in treating adults with massive injuries.[3]

Supply shortage. One of the major problems in using this technique in adults has been the lack of an adequate supply of homograft. Unlike the field of kidney transplantation, the recipient pool in burn injuries often cannot be sustained long enough (before sepsis supervenes) to allow identification and harvesting of a donor. To solve this problem, "skin banks" for homograft storage had to be established.

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Procurement of donors and harvesting could then be carried out continuously and a donor pool could then be established.

Preservation. The second major problem that needed to be solved was the development of the technology to cryopreserve viable homograft for later use. Currently, this problem has also been solved by using a controlled-rate freezing protocol (−1°C. per minute to −40°C., then −10°C. per minute to −100°C., then quickly cooled to −196°C.) and by storing the cryopreserved skin in liquid nitrogen at −196°C.[4] The viability of the skin frozen in this manner has been tested and confirmed.[5] Skin banks that have been developed throughout the United States currently use a set of guidelines prepared by the American Association of Tissue Banks (AATB); this ensures viable homograft from any of these banks.

Results. Unfortunately, the use of viable homograft in adults still only produces inconsistent results. Recently, increasing interest has been directed toward tissue-typing the donor skin. It has been shown that skin allografts closely matched for ABO blood type and HL-A antigen will survive longer than will poorly matched skin.[6,7]

Other uses. The vast majority of homograft currently being harvested and stored in the United States is not used for transplantation where "take" is required. Other uses may be summarized as follows: (1) immediate coverage of superficial second-degree burns, (2) debridement of untidy wounds after eschar separation, (3) as a "test" material prior to autografting, (4) coverage of granulation tissue between "crops" of autograft in the large burn, and (5) as an immediate coverage following tangential excision.

In the past few years commercial companies have begun processing and distributing a variety of pigskin preparations. These heterografts appear to be capable of replacing homograft in all uses except for the single use whereby a true "take" of skin is required.[8]

Donors. Currently, a cooperative effort among the various human skin banks is being planned whereby the total pool of 1,500 donor grafts per year harvested annually in the United States will be tissue typed and stored to be used exclusively for transplant to appropriately typed recipients.[9] Since "take" without rejection is truly only required for approximately 30 to 60 days, it would appear that this approach has a good possibility of success. The banks are being encouraged to use heterograft for the other situations where a biologic dressing is required.

Summary

Rapid progress has been made in the use of human skin in treating burn victims. The continuing shortage and difficulty in matching the supply of homograft with recipient demand has resulted in the development of "skin banks." These facilities have the technology to cryopreserve human skin in a viable state and store it indefinitely. The HL-A typing of the donor skin can now be performed and matched to the recipient. A cooperative effort among the banks, to reserve the homograft for use when true "take" is required and to use heterograft in other situations, is being planned. Hopefully, this technique will result in improved survival of the massively burned patient.

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Emergency Hospital Services Guidelines

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The Medical Society of the State of New York has had a number of inquiries regarding emergency services in a hospital and feels that the following information would be of assistance to our readers.

At common law, cases have held that a private and public hospital owed the public no duty to accept a patient for admission or treatment. This rule also applied to emergency aid and to emergency rooms in hospitals. Gradually, courts have carved out exceptions to this rule whereby hospitals that maintain emergency facilities may be subjected to liability for the failure to provide emergency care. Although the doctrine of "no duty" has not been expressly abandoned by the courts, the exceptions to the rule are so numerous that, in practical terms, the "no duty" doctrine cannot be relied on to shield the hospital from liability. The modern rule is generally recognized that, where the emergency services are available, a private or public hospital owes a duty to a patient who arrives at the emergency room in an emergency situation, and should give adequate appraisal or initial treatment. In an emergency, the patient should be examined, and reasonable treatment should be given to protect the life and health of the patient. The hospital should not discharge a patient in critical condition without furnishing or securing suitable medical attention.

In 1976, subdivision 1 of §(Section)2805-b of the Public Health Law was amended to provide:

> Every general hospital shall admit any person who is in need of immediate hospitalization with all convenient speed and shall not before admission question the patient or any member of his or her family concerning insurance, credit or payment of charges, provided, however, that the patient or a member of his or her family shall agree to supply such information promptly after the patient's admission. Every general hospital which maintains facilities for providing outpatient emergency medical care must provide such care to any person who, in the opinion of a physician, requires such care.

Subdivision 2, which applies only to New York City, provides:

> In cities with a population of one million or more, a general hospital must provide emergency medical care and treatment to all persons in need of such care and treatment and applying to such hospital therefor. Such care may be provided or procured by the general hospital at a location other than the general hospital if, in the opinion of the attending physician, the general hospital does not have the proper equipment or personnel at hand to deal with a particular medical emergency.

§2805-b further provides:

> Nothing in this act shall be construed to deny to the attending physician the right to evaluate the medical needs of persons applying to the hospital for emergency treatment and to delay or deny medical treatment where, in the opinion of the attending physician, no actual medical emergency exists . . . .

In addition to the statutory requirements, regulations of the State of New York Department of Health provide minimum standards for the hospital emergency service or department (10 *New York Codes, Rules and Regulations*, §405.1033). The minimal standards for the medical and nursing personnel are as follows:

1. The medical staff is responsible for insuring adequate coverage for medical emergency services.
2. Qualified physicians are regularly available at all times for the emergency service, either on call or on duty.
3. A physician sees all patients who arrive for treatment in the emergency service.
4. Qualified nurses are available on duty at all times and in sufficient number to deal with the number and extent of emergency services.

The standards of the State of New York Department of Health clearly provide that every patient should be seen by a physician. Of course, under §2805-b(1), emergency care need not be provided if in the opinion of the physician no real medical emergency exists.

Ordinarily, each hospital has established procedures in which an ill or injured person can be assessed and either be treated or referred to an appropriate facility, as medically indicated. It is important that the reader familiarize himself with the procedures adopted in his hospital. For information and assistance, the *JCAH* (*Joint Commission Accreditation Manual for Hospitals*), should be consulted. Assuming the hospital has established procedures that are consistent with the JCAH guidelines, the hospital procedures should specify the steps to be taken concerning emergency treatment and referral of emergency room cases.

Medical leaders urge extension of prenatal care to all mothers

One fourth of new mothers in the United States today give birth with little or no prenatal care, resulting in preventable maternal deaths and in many health problems for the infants, the American Medical Association declared in March.

The Committee on Maternal, Adolescent and Child Health of the AMA's Council on Scientific Affairs called for an all-out national effort on the part of physicians, government, and the public to extend to these women the same high-quality obstetric care that is utilized by the other three fourths of mothers each year.

In a report published in the March 20 Journal of the American Medical Association, the AMA Committee outlined the problem and offered suggestions for a solution.

"High-quality obstetric care from early in pregnancy through the six-week postpartum period has long been a tenent of Western medicine. About 75 percent of the 3½ million women giving birth each year in the United States begin prenatal care within three months of pregnancy," the Committee said.

"Unfortunately, for a number of reasons, about one fourth of our new mothers do not have this kind of advantage, and 1 percent to 2 percent give birth with no prenatal care."

Some of the reasons for the gap in prenatal care for all are:

"Insufficient funds for public or private services or transportation to such services; ineligibility for public services; language difficulties, and inefficient or inadequate services. Also involved are fears of deportation, physical examination or tests; fear of loss of privacy; fear of parental reaction; fear that physicians and nurses are unfriendly or disinterested, and cultural traditions that do not include medical care," the report declared.

"Inadequate public services for obstetric patients are found in both urban and rural settings. In some areas, good prenatal and family planning services are used, but there are no facilities for labor, delivery, or management of high-risk mothers and babies. Elsewhere, services are available but underused. In many places, no services are available. Hundreds of thousands of others deliver at home under unsafe circumstances. Many more deliver in hospitals inadequately equipped or staffed to deal with complications."

The human and economic costs of inadequate care are great, the AMA leaders declared. The reported maternal death rate improved greatly in the past ten years, but many such deaths probably are not reported, they said. The true maternal death figure is probably some 800 per year, about one half of which may be preventable.

Even larger penalties are inflicted on the fetus, the report said. Long-term physical and mental disability in surviving low birth weight infants can be frequent.

"Good care is costly, but not as expensive as the ill effects of poor or no care. Good prenatal and postnatal care can produce fewer babies requiring expensive nursing services. One hundred dollars spent in such services may prevent thousands of dollars in early hospital charges and tens of thousands of dollars in lifetime care."

More than seven of ten at-risk medical complications of childbirth can be identified at an early prenatal visit, the AMA pointed out.

To meet this problem, the Committee recommended:

1. Reaffirmation of the AMA's long-standing position regarding the major importance of high quality obstetric and newborn care by qualified physicians, and the need to make such care available to all women and newborns in the U.S.
2. Urge the executive and legislative branches of government to halt the increasing fragmentation of federal programs dealing with maternal and child health care services and place all programs in a single office with budgetary authority.
3. Urge the states and the federal government to fund Medicaid and other public programs sufficiently well to guarantee equal access to adequate care for the needs of all pregnant women and their children.
4. Educate the public to the long term benefit of proper care and hospital birth, as well as the hazards of inadequate care.
5. Continue discussion of means for improving maternal and child health services for the medically indigent and the culturally displaced.

Chairman of the AMA Committee on Maternal, Adolescent and Child Health is Charles E. Gibbs, M.D., of the University of Texas at San Antonio School of Medicine. Chairman of the AMA Council on Scientific Affairs is Rogers J. Smith, M.D., of Portland, Oregon. Richard J. Jones, M.D., Chicago, is Council secretary.

Obituaries

Neuman Aberfeld, M.D., of New York City, died on December 30 at the age of 75. Dr. Aberfeld received his medical degree from the University of Bucharest in 1931. He was a staff physician at the Veterans Administration Hospital, New York City. Dr. Aberfeld was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Benjamin Roy Allison, M.D., of Hewlett, died on July 12 at the age of 92. Dr. Allison graduated in 1915 from Columbia University College of Physicians and Surgeons. He was a consultant in medicine at South Nassau Communities Hospital and an emeritus member of the medical staff at Nassau County Medical Center. Dr. Allison was a Fellow of the American College of Physicians and a member of the Nassau Academy of Medicine, the Nassau County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Leroy Joseph Butler, M.D., of Glens Falls, died on July 12 at the age of 87. Dr. Butler graduated in 1917 from Albany Medical College. He was a member of the Warren County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Carlos J. Dalmau, M.D., of New York City and The Bronx, died on July 24 at the age of 60. Dr. Dalmau graduated in 1944 from George Washington University Medical School. He was a member of the American Psychiatric Association, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Luigi A. Ferrarelli, M.D., of North Tarrytown, died on May 31 at the age of 61. Dr. Ferrarelli received his medical degree from the University of Rome in 1944. He was a member of the American Geriatrics Society, the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Sol Richard Friedman, M.D., of Washingtonville, died on April 14 at the age of 75. Dr. Friedman graduated in 1931 from State University of Iowa College of Medicine. He was an honorary member of the medical staff at Arden Hill Hospital. Dr. Friedman was a member of the Orange County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Maurice Robert Friend, M.D., of New York City, died on August 5 at the age of 70. Dr. Friend graduated in 1935 from the University of Chicago, The School of Medicine of the Division of the Biological Sciences. He was a Diplomate of the American Board of Psychiatry (Psychiatry and Child Psychiatry) and a member of the American Psychiatric Association, the American Academy of Child Psychiatry, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Vincent Anthony Gallo, M.D., of Hampton Bays, died on February 8 at the age of 84. Dr. Gallo graduated in 1921 from Fordham University School of Medicine. He was an honorary surgeon at Southampton Hospital. Dr. Gallo was a member of the Suffolk County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Max Michael Goldstein, M.D., of Brooklyn, died on May 30 at the age of 86. Dr. Goldstein graduated in 1919 from Columbia University College of Physicians and Surgeons. He was a member of the American Academy of Family Physicians, the American Geriatrics Society, the American Public Health Association, the American Thoracic Society, the New York Cardiological Society, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Helene Holtz, M.D., of New York City, died on March 18 at the age of 70. Dr. Holtz received her medical degree from the University of Lausanne in 1943. She was a member of the American Medical Women's Association, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Jerome Honig, M.D., of Elmhurst, died on June 28 at the age of 72. Dr. Honig received his medical degree from the University of Zurich in 1938. He was an associate general practitioner at La Guardia Hospital and a staff general practitioner at Parkway Hospital. Dr. Honig was a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

D. Rees Jensen, M.D., of West Palm Beach, formerly of New York City, died on August 1 at the age of 84. Dr. Jensen graduated in 1925 from Columbia University College of Physicians and Surgeons. He was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Abraham Kardiner, M.D., of New York City, died on July 20 at the age of 89. Dr. Kardiner graduated in 1917 from Cornell Medical College. He was a Diplomate of the American Board of Psychiatry and Neurology (Psychiatry) and a member of the American Psychoanalytic Association, the American Psychiatric Association, the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Nicholas Kuzmowycz, M.D., of Babylon, died on June 11 at the age of 66. Dr. Kuzmowycz received his medical degree from the University of Innsbruck in 1938. He was a family practitioner at Southside Hospital, an assistant surgeon at Good Samaritan Hospital (West Islip) as well as a physician in family medicine there, and an active surgeon at Southside Hospital. Dr. Kuzmowycz was a member of the American Academy of Family Physicians, the Suffolk County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Leo Lefkowitz, M.D., of Montrose, died on March 30 at the age of 80. Dr. Lefkowitz graduated in 1924 from Columbia University College of Physicians and Surgeons. He was a Fellow of the American College of Surgeons and a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Serrie R. Lico, M.D., of Pelham, died on April 11 at the age of 71. Dr. Lico received his medical degree from the University of Rome in 1937. He was a fellow of the International College of Surgeons and a member of the American Society of Anesthesiologists, Inc., the Pan American Medical Association, the New York State Society of Anesthesiologists, the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Ladislaus J. Makarewicz, M.D., of Buffalo, died on July 3 at the age of 70. Dr. Makarewicz graduated in 1936 from St. Louis University Medical Department. He was an attending anesthesiologist at Our Lady of Victory Hospital (Lackawanna). Dr. Makarewicz was a member of the American Society of Anesthesiologists, Inc., the New York State Society of Anesthesiologists, the Buffalo Academy of Medicine, the Erie County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Marcus Nash, M.D., of Boca Raton, formerly of The Bronx and Roslyn, died on June 1 at the age of 79. Dr. Nash graduated in 1935 from the University of Texas School of Medicine. He had been a clinical assistant physician at The Bronx-Lebanon Hospital Center. Dr. Nash was a member of the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Ralph Vito Pece, M.D., of Howard Beach, died on July 4 at the age of 43. Dr. Pece received his medical degree from the University of Bologna in 1965. He was a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Y. Ramon Perez, M.D., of Buffalo, died on July 19 at the age of 62. Dr. Perez graduated in 1945 from the University of Rochester School of Medicine and Dentistry. He was chief of and an attending in radiology at Sheehan Memorial Hospital (formerly Emergency) and chief of radiology at Buffalo Columbus Hospital. Dr. Perez was a member of the Society of Nuclear Medicine, the Radiological Society of New York State, the Erie County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Elias Seetan Oweis, M.D., of Valley Stream and Brooklyn, died on April 2 at the age of 53. Dr. Oweis received his medical degree from the University of Mainz in 1963. He was a clinical assistant physician at Wyckoff Heights Hospital. Dr. Oweis was a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Francis Remy, M.D., of Greenport, died on May 16 at the age of 75. Dr. Remy received his medical degree from the University of Budapest in 1929. He was an honorary member of the staff in medicine at Central Suffolk Hospital Association. Dr. Remy was a member of the American Psychiatric Association, the Suffolk County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Sidney J. Robbins, M.D., of New York City, died on May 1 at the age of 81. Dr. Robbins received his medical degree from the University of Vienna in 1934. He was a member of the American Academy of Dermatology, the Society for Investigative Dermatology, the American Occupational Association, the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Morton Roberts, M.D., of Jackson Heights and Elmhurst, died on May 28 at the age of 58. Dr. Roberts graduated in 1945 from New York University College of Medicine. He was a staff surgeon at Boulevard Hospital. Dr. Roberts was a Fellow of the International College of Surgeons, a Fellow of the American College of Gastroenterology, and a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Abraham Rosenberg, M.D., of Yonkers, died on March 1 at the age of 78. Dr. Rosenberg graduated in 1927 from Tufts College Medical School. He was an assistant psychiatrist at Bellevue Hospital. Dr. Rosenberg was a Diplomate of the American Board of Otolaryngology, a Fellow of the American College of Chest Physicians, and a member of the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Anthony J. Salvatore, M.D., of New York City, died on March 27 at the age of 42. Dr. Salvatore graduated in 1964 from the University of Georgetown Medical School. He was an assistant anesthesiologist at Jewish Memorial and The Presbyterian Hospitals. Dr. Salvatore was a Diplomate of the American Board of Anesthesiology and a member of the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Sidney Rothbard, M.D., of New York City, died on June 17 at the age of 73. Dr. Rothberg graduated in 1935 from the University of Rochester School of Medicine. He was a consultant in medicine at The New York Hospital. Dr. Rothbard was a Diplomate of the American Board of Internal Medicine and a member of the American Rheumatism Association, the American Society for Clinical Investigation, the New York Academy of Medicine, the New

York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Leon Schechterman, M.D., of Huntington, died on July 9 at the age of 52. Dr. Schechterman received his medical degree from the University of Zurich in 1953. He was a member of the Suffolk County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Martin E. Smith, M.D., of Gloversville, died on June 28 at the age of 60. Dr. Smith graduated in 1950 from Yale University School of Medicine. He was chief of surgery at Nathan Littauer Hospital. Dr. Smith was a Diplomate of the American Board of Surgery and a member of the Fulton County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Conrad Stritzler, M.D., of Jamaica, died on June 1 at the age of 76. Dr. Stritzler graduated in 1929 from Long Island College Hospital. He was a consulting dermatologist at Kings County Hospital Center and Jamaica Hospital and a staff dermatologist at Long Island Jewish-Hillside Medical Center. Dr. Stritzler was a Diplomate of the American Board of Dermatology, Inc., a Fellow of the American College of Physicians, and a member of the American Academy of Dermatology, the Society for Investigative Dermatology, the New York Academy of Medicine, the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Rosario Terranova, M.D., of The Bronx, died on June 18 at the age of 76. Dr. Terranova graduated in 1932 from New York Homeopathic Medical College and Flower Hospital. He was an attending physician at Metropolitan Hospital and an associate physician at Flower and Fifth Avenue Hospitals. Dr. Terranova was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, and a member of the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Alfred R. Warner, M.D., of Schenectady, died on June 2 at the age of 101. Dr. Warner graduated in 1905 from Albany Medical College. He was an honorary member of the medical staff at Ellis Hospital and Sunnyview Hospital and Rehabilitation Center. Dr. Warner was a member of the Schenectady County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Harry F. Wechsler, M.D., of New York City, died on July 22 at the age of 82. Dr. Wechsler graduated in 1921 from Columbia University College of Physicians and Surgeons. He was a consulting physician at Lenox Hill Hospital. Dr. Wechsler was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, and a member of the New York Academy of Medicine, the New York Pathological Society, the Clinical Society, New York Diabetes Association, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Henry J. Weintraub, M.D., of New York City, died on July 23 at the age of 65. Dr. Weintraub graduated in 1938 from George Washington University School of Medicine. He was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, a Fellow of the American College of Cardiology, a Fellow of the American College of Chest Physicians, a Fellow of the American College of Angiology, and a member of the New York Cardiological Society, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

David Weiss, M.D., of New York City and Forest Hills, died on July 17 at the age of 76. Dr. Weiss graduated in 1928 from New York Homeopathic Medical College and Flower Hospital. He was an associate surgeon at Beth Israel Medical Center and an off service surgeon at Long Island Jewish-Hillside Medical Center. Dr. Weiss was a Fellow of the American College of Surgeons and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Chancellor H. Whiting, Sr., M.D., of Oneida, died on July 23 at the age of 87. Dr. Whiting graduated in 1918 from the University of Buffalo School of Medicine. He was an honorary urologist on the medical staff at Oneida City Hospital. Dr. Whiting was a Fellow of the American College of Surgeons and a member of the Aerospace Medical Association, the Madison County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

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New Concepts in Nutrition and Cancer: Implications for Folic Acid

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INTRODUCTION

A great deal of interest has developed in the subject of nutrition and cancer in recent years both on the part of the general public and professional scientists. Indeed, *Nutrition and Cancer*, an international journal, has been established to deal exclusively with the subject and has been available since 1979.

It is now generally recognized that cancer is not one disease, but a complex array of disorders with widely varying etiologies and treatments. In view of the known complexities and broad scope of nutrition sciences, it would seem an almost hopeless task to find meaningful interrelationships between the two topics! Yet, some order seems to be emerging from the seeming chaos of this unwieldy pair of topics.

SOME MECHANISMS BY WHICH DIET AND NUTRITION MAY BE RELATED TO THE ETIOLOGY OF CANCER

It will not be possible, due to limitations of space, to discuss all of the possible mechanisms by which diet and nutrition may be related to the etiology of cancer. Some of them are presented in Table I.

Table I

1. Carcinogens (and pro-carcinogens) in food,
2. Oxidant damage to cells; lack of antioxidant substances in the diet,
3. Excessive intake of certain nutrients (e.g., animal fat, selenium, iron, alcohol, vitamin A),
4. Altered solubility, adsorption, absorption of nutrients and/or carcinogens due to dietary factors (e.g., fiber),
5. Altered enteric bacterial population due to dietary factors,
6. Chromosome damage due to nutrient deficiency,
7. Abnormal repair of chromosome damage,
8. Altered metabolism of hormones (e.g., in obesity),
9. Impaired immunity to tumor cells and viruses, and
10. Genetic "susceptibility" plus dietary factors.

It may be seen that some of the mechanisms are not strictly independent. Many seem to share, as a common denominator, some sort of genetic or chromosomal injury which may, in turn, be conditioned by nutritional factors. For example, healthy immune systems are thought to be capable of recognizing and destroying certain deviant cells which might arise from a chemical or viral mutagen. In other situations, chromosome damage could occur as a result of either primary nutritional inadequacy or an abnormal repair mechanism. It has, moreover, been known for many years that certain tumors are hormone dependent and it is well known that the action of hormones and nutrients are intricately intertwined.

Three new concepts seem to be emerging which have great promise for understanding relationships between nutrition and cancer; these are: (1) the concept of hormonally induced *localized nutrient deficiency*, (2) the concept of nutritionally dependent, *fragile sites on human chromosomes*, and (3) the concept of altered pathways of nutrient metabolism induced by oncogenic viruses. Since these seem to be unifying concepts which are likely to have considerable influence on future research, they merit careful study. The following paragraphs are offered as a brief, general introduction to the subject.

THE CONCEPT OF LOCALIZED NUTRIENT DEFICIENCY

It has been traditional to think of nutrient requirements in terms of the whole organism and relatively little attention has been paid to the requirements of individualized tissues. Of course, the importance of nutrient requirements during pregnancy, infancy, lactation and even in response to trauma have been recognized. However, the role of nutrients in the maintenance of structure and function in individual tissues has received scant attention. Moreover, it has been tacitly assumed that the nutrient content of a tissue is somehow a constant property related in some way to its structure and function. But, relatively little is known about the dynamic changes that may occur normally in either animal or human tissues over short periods of time.

It seems important now to consider the *fluctuations* that may occur in nutrient content of tissue as the result of intake patterns, hormonal stimulation and various other stresses. Folic acid may be regarded as a model nutrient to illustrate some of these concepts.

It has been known for many years that folic acid plays a key role in the expression of steroid hormone effects on target tissue.[1,3] For example, when chicks and monkeys are grown on a folic acid-deficient diet, the female genital tract fails to develop normally in response to estrogen stimulation. In 1973, Whitehead *et al.*[4] observed megaloblastic features in cervical epithelial cells from a group of women who were using steroid hormones as oral contraceptive agents (OCA's). Although the cytologic changes were not associated with evidence of systemic vitamin deficiency, they disappeared with oral folate supplementation, leading the authors to postulate the existence of *localized* folate deficiency in the cervix.

Subsequently, Krumdieck *et al.*[5] demonstrated in laboratory tests that cyclic variations normally occur in the content and nature of folate coenzymes in the rat uterus during successive stages of the reproductive cycle. During proestrus the activity of the enzyme pteroyl polyglutamyl hydrolase ("conjugase") doubled, and the total folate content was nearly doubled. There was a relative decline in the polyglutamate form and an increase in the coenzymes having a shorter chain length. These changes were interpreted as being associated with the cyclic "burst" of mitotic activity needed to regenerate the endometrium in preparation for possible implantation of fertilized ova during the subsequent stage of estrus. In this connection, it is of interest to note that the risk of developing endometrial cancer is increased 4-fold to 15-fold in women who have been long-term users of estrogens.[6] It is also of interest that many papers have called attention to the association of obesity with endometrial cancer. It has also been shown[7] that there is an increased conversion of a naturally occurring androgen to an estrogen in obese subjects. Thus, individual differences in hormone metabolism could affect the nutrient content of specific tissues. In 1976, a clinical trial began to test the hypothesis that cervical dysplasia is associated with localized folacin deficiency and that the deficiency can be corrected by an oral supplement of the vitamin.

Forty-seven young women with mild or moderate dysplasia have now received oral supplements of either folic acid 10 mg daily, or a placebo, under strict double-blind conditions for 3 months while continuing their established use of a combination-type OCA[8,9] There was significant improvement in the final cytology scores of the supplemented subjects, whereas the placebo group showed no change. In addition, biopsies obtained under colposcopic guidance were significantly better among supplemented than unsupplemented subjects There were 4 cases of apparent regression to normal among subjects receiving folic acid supplementation, but none in the unsupplemented group. There were 4 cases of apparent progression to carcinoma *in situ* among the unsupplemented subjects, but none in the group receiving folic acid supplementation. The data is interpreted as indicating that oral folate supplementation may prevent the progression of early cancer to a more severe form and in some cases promote reversion to normalcy

THE CONCEPT OF FRAGILE SITES AND SOMATIC MUTATIONS

It has recently been demonstrated that human chromosomes tend to break at certain specific locations under certain specific conditions and that the tendency is a heritable trait demonstrable in family pedigrees. In a recent series of papers, Sutherland[10,11,12] has described the occurrence of fragile sites in at least 7 different human chromosomes in lymphocytes and fibroblasts grown under chemically defined conditions. Manifestations of fragile sites include nonstaining gaps at exactly the same point on a given chromosome, acentric fragments, deleted chromosome, sister chromatid exchange and related phenomena. It seems highly significant that the nutrient content of the culture medium is a key factor in demonstrating the presence of a fragile site. Many of them can be demonstrated by growing in tissue culture medium that is relatively deficient in folic acid. Expression of the phenomenon can be blocked by providing an excess of folic acid, citrovorum factor or thymidine in the medium.

So far, there is no clear evidence that fragile sites are involved in cancer formation in humans or animals. However, their existence offers a mechanism whereby specific mutations could occur in target tissue if folic acid or some other essential nutrient is in relatively short supply. In addition, they would help explain how a family tendency toward cancer could exist in a dormant state until exposure to nutritional stress or perhaps an environmental mutagen brought forth a full blown malignant transformation. Indirect support of this concept may be seen in a report by Branda *et al.*[13] of a family with an inherited defect of cellular folic acid uptake Among four generations of this family, there were 34 cases of proven or suspected serious hematologic disease, including 5 cases of acute leukemia. In another report, Marinello *et al.*[14] described the occurrence of "double minute" chromosomes in 40 of 320 patients with hematologic disease The abnormal chromosomes resemble and are compatible with fragments arising from chromosome breaks at a fraglie site.

VIRAL ONCOGENESIS

There is considerable circumstantial evidence that cervical cancer is related in some way to the herpes simplex virus,[15] a DNA-containing virus. The "retroviruses," which contain RNA, are proven tumor-inducing agents in certain species; they cause RNA-directed synthesis of DNA by reverse transcriptase.[16] There would be good reason to suspect that folic acid-containing coenzymes play important roles in this DNA synthesis just as they do elsewhere.

It is relevant to note that another virus, the even-numbered T-bacteriophages of *E. coli*, contains pteroyl hexaglutamate as an essential component of the tail-plate in the region of attachment of the 6 tail fibers.[17] Treatment of phage particles with conjugase renders them noninfectious but does not alter their morphologic appearance by electron microscopy. It is believed that the folacin component is essential for the recognition of and attachment to specific binding sites on the bacterial cell membrane. If these observations apply, as a matter of general biological principle to human oncogenic viruses, several important questions are raised:

1. Is the site of viral modification of chromosomal DNA unusually susceptible to damage or breakage?
2. Do human oncogenic viruses pass from cell to cell by means of receptors intended for nutrient uptake?
3. Does viral-induced synthesis of a coenzyme (e.g., a folacin-containing polyglutamate) "trigger" cell division and malignant transformation?
4. Since nutrients required for viral proliferation may be different from those of the host, can viruses be attacked by specific metabolic inhibitors without affecting normal pathways?
5. Do viruses and steroid hormones share any common biochemical mehanisms for affecting nuclei (i.e., chromosomal DNA) of target tissues?

SUMMARY

From the foregoing discussion, it is apparent that important new leads are developing which may help explain relationships that were heretofore considered obscure between cancer, nutrition, hormones and viruses. New concepts are emerging and new techniques are being applied. The 1980s promise to be a decade of intense, exciting and fruitful research in man's battle to conquer cancer — or at least some forms of it.

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Medical Meetings

Meet the professors

New York University Medical Center and the Department of Medicine is offering "Meet the Professors" on Wednesday, 4 p.m. to 7 p.m., starting October 14 with the last session on December 23.

For information, call or write: NYU Post-Graduate Medical School, 550 First Avenue, New York, New York 10016; telephone 212-340-5295.

Participants will receive 30 category 1 credit hours and 30 AAFP prescribed credit hours are pending.

Office management of common orthopedic problems

The Department of Orthopedics and New York University Medical Center are offering a course on "Office Management of Common Orthopedic Problems," Friday to Sunday, October 23 to 25, 8:30 a.m. to 5 p.m. Category 1 credit hours will be accredited.

For information, call or write: NYU Post-Graduate Medical School, 550 First Avenue, New York, New York 10016; telephone (212) 340-5295 (24-hour telephone service).

Dermatology course

"Dermatology for the Practicing Physician" will be offered by New York University Medical Center and the Department of Dermatology, Thursdays, 1:30 p.m. to 3:30 p.m., October 22 to November 19, 1981. The course is accepted for 10 category 1 credit hours.

For information, call or write: NYU Post-Graduate Medical School, 550 First Avenue, New York, New York 10016; telephone (212) 340-5295 (24-hour telephone service).

Opioids in mental illness

"Opioids in Mental Illness: Theories, Clinical Observations, and Treatment Possibilities" will be presented by The New York Academy of Sciences, October 28 to 30 at The Barbizon-Plaza Hotel, New York City.

This is an international meeting concentrating on the clinical manifestations of opioid effects on mental illness. The psychopharmacology of exogenous opioids and endorphins will be described both in humans and in animals. The controversial issue of opioid therapy in mental illness will be scrutinized based on its medical and scientific merits and also on its sociopolitical impact. The conference structure is a logical continuum starting at the basic science components of opioid behavioral effect culminating in the clinical findings and their implications for the possibility of opioid use in mental illness.

For further information, contact: Conference Department, The New York Academy of Sciences, 2 East 63rd Street, New York, N.Y. 10021.

Material for inclusion in the medical meetings section must be received eight weeks prior to publication date.

Annual meeting

The 1981 annual meeting of the American Academy of Pediatrics will be held October 31 to November 5 with headquarters at the New Orleans Hilton Hotel, New Orleans, Louisiana.

New York Academy of Medicine

Lieutenant Governor Mario Cuomo, Chairperson of the New York State Commission on the International Year of Disabled Persons, will be the keynote speaker at the New York Academy of Medicine's program on "The Disabled in Society—Past, Present, Future" to be held Thursday evening, October 29th, beginning at 8:00. The Academy is located at Two East 103rd Street, New York, New York 10029.

A part of the worldwide observance of the International Year of Disabled Persons, the program is sponsored by the Academy's Section on Physical Medicine and Rehabilitation.

The program will start at 8 p.m. and is open to all members of the medical and allied health professions and interested members of the public.

For additional information, please call George H. Weiler, Jr. (Development and Public Relations) or the Committee on Medical Education, at 212-876-8200, Ext. 262 and 207, respectively.

Students urged to plan ahead for nursing careers, employment

Students with an eye to their futures as registered nurses are encouraged to attend NSNA's (National Student Nurses' Association) two-day seminar on career planning to be held in three cities this fall. Project Tomorrow, NSNA's career planning series, will be held in San Francisco (November 6–7); Dallas (November 20–21), and Detroit (December 4–5).

"Project Tomorrow" is an opportunity to get a head start on your colleagues in professional development and employment opportunities," according to President Margaret Chop. Over 1,000 students nationwide are expected to take advantage of the opportunity to hear nationally known speakers and to discuss employment opportunities with educational sponsors from across the country in the Project Tomorrow Career Centers. NSNA expects at least 85 sponsors in each of the three cities.

For more information write or call the National Student Nurses' Association, 10 Columbus Circle, Room 2330, New York, N.Y. 10019; telephone (212) 581-2211.

International Colloquium

"Cancer 1981/2001—An International Colloquium" is a conference sponsored by The University of Texas M. D. Anderson Hospital and Tumor Institute at Houston to mark the 10th anniversary of the National Cancer Program

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and to promote efficient energy use, and also sponsors a fellowship program providing early career support for physicians in medical research. The Foundation, which has assets of $135 million, granted $7.7 million to projects in these three areas in 1980.

The CEAP study is designed to help curb spiraling American health care costs without compromising quality. The American College of Physicians, founded in 1915, represents 51,000 doctors of internal medicine (internists), related nonsurgical specialists, and physicians-in-training. Through rigorous membership requirements, contact with health care officials in government and private sectors, continuing medical education programs, and programs such as CEAP, the American College of Physicians works to upgrade the quality of medical care, education, and research in the U.S.

Notice to physicians

The National Institute of Neurological and Communicative Disorders and Stroke has a program for studying histochemical changes in the nervous system in Parkinson's Disease. For this purpose we need brains from autopsied patients with parkinsonism.

The whole brain should be removed from the body as quickly as possible, but at least within 48 hours (preferably 24 h.) of death and stored at −20°C. (−4°F.). If you do not perform autopsies yourselves, it should be possible for us to arrange that this be performed here.

The opportunity to study this material is rare and your help and cooperation is greatly appreciated. Those interested should contact: T. Andreo Larsen, M.D., National Institute of Neurological & Communicative Disorders & Stroke, Bldg. 10, Room 3D12, Bethesda, Md. 20205; telephone: 301-496-4604 (W) and 301-654-8831 (H) and Donald B. Calne, M.D., National Institute of Neurological & Communicative Disorders & Stroke, Bldg. 10, Room 6D20, Bethesda, Md. 20205; telephone: 301-496-1561 (W); or NIH Neurologist on call at 301-496-4000.

Here and there

Appointed: Among those recently appointed to the United States Pharmacopeia advisory panel on electrolytes, large-volume parenterals, and renal drugs was Laurence Finberg, M.D., professor of pediatrics, Montefiore Hospital and Medical Center, The Bronx . . . Seymour Jacobson, M.D., has been appointed as a research consultant in psychogeriatrics at Harlem Valley Psychiatric Center . . . Murray Schane, M.D., has been appointed to the post of Deputy Unit-Chief, Clinical, Multipurpose Inpatient Services at Harlem Valley Psychiatric Center . . . Shirley Schmones Wallace, M.D., has joined the staff at Harlem Valley Psychiatric Center as Deputy Unit-Chief, Clinical, Psychogeriatric Center.

Named: Robert Turell, M.D., New York City, has been named by the University of Wisconsin Alumni Club of New York the 1981 Man of the Year for past accomplishments.

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Members under age 60 may add protection up to $100,000 Total amount is also paid if the member is permanently and totally disabled as the result of an accident, after 12 consecutive months of total disability

Continued

**The renewal of your policy is guaranteed* so long as (a) you are a member of MSSNY, (b) you are under age 70, (c) you remain actively engaged in medicine and (d) the Society sponsors this Plan and does not sponsor or endorse any other similar program

e. **Student Disability Income Protection Plan*.**

Group Life Plan with Special Renewal Guarantee. Society members under age 65 who are medically insurable may add up to $250,000 term life protection. New MSSNY members under age 65 are guaranteed substantial amounts of the protection without regard to medical history, if they apply within 60 days of joining MSSNY. Tax-deductible coverage is available for a physician's employees or the physicians and other employees in a professional corporation.

Renewal guarantee By special agreement with MSSNY, the Company cannot cancel or refuse to renew your group life contract so long as the Society sponsors this plan and no competing life plan.

UNDERWRITERS OF INSURANCE PLANS:

The Society Group Life Plan is underwritten by Bankers Life Co., Des Moines, Iowa, a leader in the professional association life field The other endorsed plans are written by the Commercial Insurance Co's of New York City Commercial Insurance has written many of the county and district branch programs in New York for many years

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will be held on November 10–14, 1981 at Shamrock Hilton Hotel, Houston, Texas.

Almost 200 speakers, including three Nobel prize recipients, will present their latest work in an effort to determine where cancer patient care and research stand today. Basic and clinical scientists will look at the directions cancer research and treatment are expected to take in the future and will consider what the status of cancer patient care will be by the year 2001.

Sessions include discussions of the current and future status of radiotherapy, chemotherapy, and surgery. Speakers also will discuss the diagnosis and treatment of head and neck, prostate, breast, gynecologic, and pediatric cancers. Other sessions will focus on biological therapy including interferon, carcinogenesis, nutrition in cancer, cancer genetics, cancer nursing, dental oncology, pain control, and medical social service.

If you have questions or requests, please call either Lisa Long or Joan Chin at (713) 792-3030, or write: Department of Information and Education, M. D. Anderson Hospital and Tumor Institute, Texas Medical Center, Houston, Texas 77030.

Sixth southeastern conference on alcohol and drug abuse (SECAD)

One of the foremost annual events in the fields of medicine, psychiatry, social work, and various related fields will be repeated December 2nd–6th, in Atlanta, when the Sixth Southeastern Conference on Alcohol and Drug Abuse (SECAD) is held at the Airport Marriott Hotel.

Physicians will receive 27 continuing education credits and credits for nurses will be awarded.

To secure full details as soon as possible, write or telephone Ms. Barbara Turner, Conference Coordinator, Charter Medical Corporation, Addictive Disease Division, 5780 Peachtree Dunwoody Road, N. E., Suite 170, Atlanta, Georgia 30342; telephone (404) 257-9333.

Second annual combined physician-therapist conference

The Sports Physical Therapy Section of the American Physical Therapy Association in association with the Medical College of Virginia School of Physical Therapy will present the 2nd Annual Combined Physician-Therapist Conference on "The Evaluation and Current Treatment of Athletic Injuries: The Lower Extremity Kinetic Chain," December 3–5, 1981, at the Hyatt Regency O'Hare, Chicago, Illinois; Credit, 17 hours AMA Category 1.

For advanced registration contact: Ms. Kathy Johnson, Continuing Medical Education, Box 48, MCV Station, Richmond, Virginia 23298.

Fourth annual clinical focus: ophthalmology

The fourth annual clinical focus "Ophthalmology" will be held January 17 to 23 at Sugarbush Inn, Warren, Vermont.

This continuing medical education activity meets the criteria for 20 credit hours in Category 1.

For more information write to: Mrs. Betty Frost, Program Assistant, Office of Continuing Education, Upstate Medical Center at Syracuse, State University of New York, 766 Irving Avenue, Syracuse, New York 13210; telephone: (315) 473-4606.

International Advanced Hair Replacement Symposium

The International Advanced Hair Replacement Symposium will be held in Birmingham, Alabama, February 3–4, 1982. It is sponsored by the American Academy of Facial Plastic and Reconstructive Surgery, Inc. For further information, please contact: Dr. D. B. Stough, III, program director, Doctors Park, Hot Springs, Arkansas 71901, or Dr. Gary D. Monheit, program codirector, 1717 11th Avenue South, Suite 521, Birmingham, Alabama 35205.

Announcement

The annual meeting of the United States-Canadian Division of the International Academy of Pathology will be held at the Sheraton Boston in Boston, Massachusetts, from Monday morning, March 1 through Friday evening, March 5, 1982. The Maude Abbott Lecture entitled "Soft Tissue Tumors in the 19th and 20th Century" will be delivered by Dr. Raffaele Lattes on Tuesday, March 2.

Scientific Papers, Poster Sessions, 12 specialty conferences, and 45 short courses are scheduled. Two special courses will be offered on "Immunopathologic Techniques in Diagnostic Pathology" with Dr. Robert McCluskey as course director and "Electron Microscopy in Diagnostic Pathology" with Dr. Benjamin Trump as course director. The long course will be on "Connective Tissues and Connective Tissue Diseases" with Drs. Bernard M. Wagner and Raul Fleischmajer as course directors.

Two special lectures are to be presented during the meeting. On Monday, March 1, in celebration of Harvard's Bicentennial, Drs. Gustave Dammin and Arthur Hertig will present a session on "Contributions of Harvard to Pathology." On Tuesday, March 2, Dr. Baruj Benacerraf, Nobel Laureate, will speak on "The Role of MHC Gene Products in Immune Regulation."

Further information about the meeting and courses may be obtained from Dr. Nathan Kaufman, Secretary-Treasurer, United States-Canadian Division of the International Academy of Pathology, 1003 Chafee Avenue, Augusta, Georgia, 30904. Telephone (404) 724-2973.

Symposium

October 30–31, 1981
The Plaza Hotel
New York, N.Y.

Grand Rounds In Medicine: RECOGNITION AND MANAGEMENT OF THROMBOEMBOLIC DISORDERS

Symposium Objectives

The objective of this symposium is to provide clinically relevant information to aid the practicing physician in the recognition of patients with thromboembolic disorders and proper patient selection for the use of anticoagulant or antiplatelet therapy. Panel discussions will focus on actual case histories representative of management problems confronting the physician in private practice.

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medical devices through competitive bidding. The HHS Department could allow states to establish cost-effective arrangements for services and drugs.

States are given the okay to enter into Medicaid prepaid risk arrangements with federally qualified HMOs (health maintenance organizations). The limitation on Medicare and Medicaid enrollment in HMOs with state Medicaid contracts is raised from 50 percent to 75 percent of the total membership.

* * *

The Reagan Administration has told the nation's governors it is committed to achieving the type of block grants favored by the governors.

HHS Secretary Schweiker, meeting with the governors, commended the governors for their support in the Administration's tangle with Congress on the block grant issue. He conceded that the result was a long way from the original goal of turning the responsibility over to the states, but promised an effort will be made next year to put more federal programs into block grants.

In acting on the Administration's proposal to place a wide-range of programs into block grants, including 26 health programs, Congress gave the Administration at best half-a-loaf. About 20 health programs were placed in block grants in the budget reconciliation measure, and most of these were wrapped in restrictions as to how the states could spend the money.

The block grant concept is to place a group of federal programs into a single lump sum allotment to the states with the states then free to spend the money among the various programs as they choose.

Schweiker said the Administration is now working to design the block grants approved by Congress with a minimum of federal regulations so that the states will have maximum flexibility.

White House and HHS officials are beginning a series of regional conferences at all levels of government to coordinate and speed the implementation of the block grants, he said. The emphasis throughout will be on deregulation, Schweiker told the governors.

* * *

The nation's medical schools next fiscal year will lose $40 million in capitation aid under the budget reconciliation law. However, medical school and other health manpower programs in general were not cut as deeply as the Administration recommended.

"Schools of medicine fared quite well compared to the bleak future they would have faced had the provisions embodied in the Senate bill been accepted," said the AAMC (Association of American Medical Colleges). However, virtually all of the money authorization levels in the final budget measure are below the current appropriations for educational activities.

The elimination of the capitation program of general aid for medical schools was a foregone conclusion, since both House and Senate budget bills proposed it. President Carter had proposed killing capitation the last two years of his administration.

On other programs, the reconciliation bill:

* Renews the Exceptional Financial Need Scholarship program at levels of $6 million, $6.5 million, and $7 million for the next three fiscal years.

- Retains the Health Professions Student Loan program with ceilings of $12 million, $13 million, and $14 million over three years.
- Continues the National Health Service Corps scholarship program with awards of $110 million, $120 million, and $130 million for three fiscal years, enough money to provide 550 new scholarships each year. The Administration and the Senate had wanted a freeze of new scholarships.
- Funds the Health Education Assistance Loan program at $200 million, $225 million, and $250 million.

The National Research Service Awards of keen interest to medical schools, were extended for two years at $182 million and $195 million, substantially above the $150 million implied in the Senate bill. The AAMC said that as a result the NIH (National Institutes of Health) in the fiscal year starting October 1 will be able to support between 8,000 and 10,000 trainees.

The final version of the Guaranteed Student Loan program limits eligibility to those students with adjusted gross family incomes of $30,000 or less, except where students can document need otherwise. All students must pay a five percent origination fee when they receive their loans.

Under the budget law, grants for Departments of Family Medicine were set at $10 million, $10.5 million, and $10.5 million; ceilings for Area Health Education Centers were authorized at $21 million, $22.5 million, and $24 million.

Other authorizations:

General Internal Medicine and Pediatrics training—$17 million, $18 million, and $20 million; Family Medicine training—$32 million, $34 million, and $36 million; educational assistance to disadvantaged people, $20 million, $21.5 million, and $23 million; financial distress grants—$10 million a year; grants for curriculum development—$6 million, $6.5 million, and $7 million; preventive medicine initiative—$1 million, $1.5 million, and $2 million.

Schools of Public Health were authorized $21 million over three years for capitation grants, $10.5 million for traineeships, $5 million for health administration programs, and $1.5 million for health administration traineeships.

Aid for nursing education was continued at a much higher level than the Administration recommended. Advanced nurse training was provided $14 million, $15 million, and $16 million. Nurse practitioners training received $12 million, $13 million, and $14 million. Nursing student loans were granted $48 million total over three years, and nursing special projects, $31.5 million.

* * *

A federal program to encourage accreditation of people who perform radiologic procedures and minimum standards for certification of people who administer radiologic procedures was a surprising provision of the budget reconciliation law.

Since the provision gives much discretion to the HHS Secretary, there is a question of whether such a program will get far off the ground. The Administration had no chance to take a position on the measure which was opposed in previous years by the American Medical Association and the American Hospital Association, among others, on grounds it would duplicate existing private quality controls.

The bill requires the HHS Secretary to issue regulations

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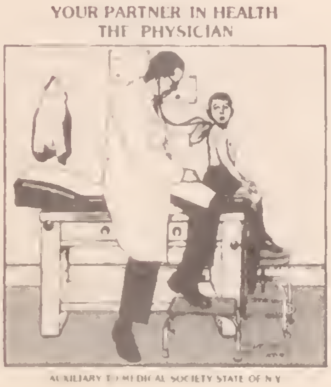
Physician Recognition Stamp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MISCELLANEOUS

APPLICATIONS AND TECHNIQUES OF ENDOSCOPY: 1981. The New York Society of Gastrointestinal Endoscopy will hold its annual course on November 19 and 20, 1981 at the Grand Hyatt Hotel in New York. Emphasis will be on recent advances in diagnostic and therapeutic endoscopy of the pancreatico-biliary and hollow visceral systems. Relationships between endoscopy, clinical science and angiography will be stressed. Course faculty includes Drs. Sherlock, Shinya, Waye, Winawer and Zimmon. The course is accredited for 11 hours of AMA Category 1 credit. Course directors are Drs. Lawrence Brandt and Kevin Morrisey. For information contact Dr. Lawrence Brandt, Montefiore Hospital and Medical Center, 111 East 210th Street, Bronx, New York 10467.

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WINTER MEETING—MONT TREMBLANT, February 7–13th, 1982. The Departments of Otolaryngology of the University of Toronto and Cleveland Clinic invite you to share the fourth post-graduate educational offering presented at Mont Tremblant Lodge in Quebec. Registration limited to 100. AMA Category 1 credit of 17 hours. For information: William S. Crysdale, M.D., 555 University Avenue, Suite 6118, Toronto, Ontario, Canada M5G 1X8.

PHYSICIAN'S COMPUTER LETTER: You'll receive hands-on reviews o hardware and software, interviews with users, getting started and cutting cost guides, check lists and much more. A hot line service is included with your subscription. Eleven issues for $72 from Information Research, 10367 Paw Paw Lake Drive, Mattawan, MI 49071.

PRIMARY HAND CARE UPDATE for the Primary Care Physician, Surgeon and Resident—November 7, 1981, Saturday, 8:30 a.m. to 4:30 p.m., Harrison House Glen Cove, Long Island, N.Y. This course is held in cooperation with the American Society for Surgery of the Hand and The New York Society for Surgery of the Hand. Course Chairman: Ronald M. Match, M.D., 10 Medical Plaza Glen Cove, N. Y. (516) 671-8779.

WORKSHOP ENTITLED, "MARRIAGE, DIVORCE, and Sexual Counceling in Medical Practice," December 11–13, 1981, Rye Town Hilton, Port Chester N.Y. This course has been reviewed and is acceptable for 13 elective credits by the AAFP. Contact: Dr. Thomas M. Pick, 474 Main St., Greenfield, MA 01301 (413) 773-7983.

EQUIPMENT

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HYSICIANS WANTED—CONT'D

MERGENCY MEDICINE—WESTERN NEW YORK: Clinical and Directorship opportunities. Excellent income, paid malpractice insurance, flexible scheduling without on-call involvement—all are available to physicians chosen. For further details send credentials in confidence to James Thomas, 230 Park Avenue, Suite 303, New York, NY 10017 or call Collect (212) 599-0060.

ENERAL SURGEON —54 bed hospital seeking Board Certified or Eligible surgeon. Will assist in setting up private practice. Beautiful rural setting, along Lake Ontario, 30 miles east of Rochester, N.Y. Send resume to Gerald Vozel, Administrator, Myers Community Hospital, P.O. Box 310, Sodus, NY 14551.

BSTETRICIAN—GYNECOLOGIST Immediate opening for Board Certified/Eligible OB/GYN to join current OB/GYN associated with 15 man multispecialty group. Affiliate with large, modern community hospital in suburbs of New York City. If interested, send C.V. to Dept. 201, c/o NYSJM.

OCUM TENENS WANTED for 2 weeks in April. Internal Med. & Cardiology. Town 30,000 Upstate New York, by Lake Champlain & Adirondacks. Excellent hospital of 450 beds. Dept. 207, c/o NYSJM.

LINIC OPHTHALMOLOGIST GERIATRIC INSTITUTION requires an Ophthalmologist for Clinic Work. Please call (212) 549-8700, Ext. 237.

NTERNIST WANTED: Board Certified, with sub-specialty training in Endocrinology or Rheumatology to join an internist in Upstate N.Y., by the Lake Champlain & Adirondack Mountains, one hour from Montreal, Reply Dept. 206, NYSJM.

OSITIONS WANTED

HEUMATOLOGIST-INTERNIST, 32, ABIM in both, with excellent clinical training and practice-teaching experience, desires association with subspecialty/group/associate. Prefer N.Y. Metro area, but will consider all. Dept. 204, c/o NYSJM.

AMILY PHYSICIAN, BOARD CERTIFIED desires to purchase practice in southern Staten Island. Call (212) 698-5541 or (212) 967-2224.

ENERAL RADIOLOGIST (Board Certified in Diagnostic and Rad. Therapy) desires part-time work in radiology including—special procedures, nuclear medicine CT scan, rad-therapy during the week (afternoon/and weekends) in Metropolitan New York Area. Telephone (212) 233-5300, ext. 227.

RACTICES WANTED

PHTHALMOLOGIST, BOARD CERTIFIED desires to purchase practice in the New York City or suburban area. Confidence Maintained. Please contact Dept. 168, c/o NYSJM.

ROLOGIST BOARD CERTIFIED FACS 49 years old well trained pediatric adult rology university medical center, presently in multispecialty group, seeking elocation as a solo urologist or partner in small urology group, N.Y., N.J., Penn. icenses, available now. A. Colalillo, M.D., P.O. Box 68, Freeport, Illinois 61032, elephone: (815) 235-3847.

NECOLOGIST-OBSTETRICIAN, Well trained (Laparoscopy, infertility, olposcopy, etc.) with 12 year established practice in Queens, N.Y., wishes to urchase an OB-GYN practice or establish an association in Suffolk or Westhester County. Reply Dept. 200, c/o NYSJM.

TERNIST-NEPHROLOGIST—Board Certified in both specialties. Seeking ractice opportunity in New York City—Long Island area. Available immeditely. Reply Dept. 196, c/o NYSJM.

ARD ELIGIBLE INTERNIST looking for private practice: solo, group or artnership; terms negotiable; would prefer hospital based practice. Please send eply to Dept. 209, c/o NYSJM.

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H. Friedman, V.P.-Douglas Elliman-Gibbons & Ives, Inc., 575 Madison Ave
N.Y., N.Y. 10022. (212) 832-5571.

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on weekdays (518) 465-6068.

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professional arrangement. Unlimited parking. Well insulated with very ec
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OFFICE TO SHARE Murray Hill—40th Street. Available October 1981, Op
thalmologist. (212) 875-7127.

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nights or reply Dept. 205, NYSJM.

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or Orthopedist. Staff privileges available at both hospitals to qualified phys
cians. F. Weber, 270 Millers Lane, Kingston, N.Y. 12401. (914) 331-1667.

what goes on
IN
CONTINUING MEDICAL EDUCATION

NEW YORK STATE **NOVEMBER 1981**

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Please send information to the Editor, WHAT GOES ON,
420 Lakeville Road, Lake Success, New York 11042
Telephone 516-488-6100.

Compiled by the Division of Scientific Activities
George J. Lawrence, Jr., M.D., Director
Mrs. Elizabeth H. Daepp, Editor
Philip Keating, Director, Division of Finance

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NEW YORK CITY

Albert Einstein College of Medicine of Yeshiva University

1300 Morris Park Avenue, Bronx 10461
* The Grand Hyatt Hotel, New York
November 5-7, 1981—Thursday
EIGHTH ANNUAL SYMPOSIUM ON CURRENT CRITICAL PROBLEMS IN VASCULAR SURGERY
CREDIT: AMA Cat. 1
For further information contact Office of Professional Education, Montefiore Hospital & Medical Center and Albert Einstein College of Medicine, 111 East 210 Street, Bronx 10467. Tel: 212/920-6676.

International Oculoplastic Society Sponsored by New York Medical College, Westchester County Medical Center

630 Park Avenue, New York 10021
November 11 thru 14, 1981
SEMI-ANNUAL OCULOPLASTIC SURGICAL DISSECTION COURSE
FEE: $650. CREDIT: AMA Cat. 1 (40 hrs.)
For further information contact Ms. P. Tamkin, c/o Dr. P. Guibor, 630 Park Ave., New York. Tel: 212/734-1010.

Semmelweis Scientific Society

* New York Academy of Sciences
2 East 63rd Street
New York 11042
October 23, 1981, Friday 8:00 p.m.
EVALUATION AND TREATMENT OF THE HYPERTENSIVE PATIENT
Stanley E. Gitlow, M.D.
CREDIT: AMA & AAFP Cat. 1

New York University Post-Graduate Medical School

550 First Avenue, New York 10016
* Alumni Hall—Classroom B
September 9, 1981 through April 21, 1982
Wednesdays, 7:00 p.m. to 10:00 p.m.
COMPREHENSIVE PSYCHIATRY BOARD REVIEW
Harold I. Kaplan, M.D. & Benjamin J. Sadock, M.D.
FEE: $990. CREDIT: AMA & APA Cat. 1 (90 hrs.)
For further information contact Registration Office, N.Y.U. Post-Graduate Medical School. Tel: 212/340-5295.

The New York Academy of Medicine

2 East 103rd Street
Section on Dermatology and Syphilology
November 3, 1981—Tuesday, 7:00 p.m.
CLINICAL CASE PRESENTATIONS
PRESENTATIONS OF CASES
Drs. Edward H. Mandel, Alan R. Shalita
CREDIT: Cat. 1 (2 hrs.)

Section on Psychiatry with the U.S. National Committee for the Prevention and Treatment of Depression
November 18, 1981—Wednesday, 9:00 a.m.
CURRENT DIAGNOSTIC CRITERIA FOR DEPRESSIVE ILLNESS
Paula J. Clayton, M.D.
ANTIDEPRESSANT MEDICATION: THE COMPLIANCE PROBLEM
Fritz A. Freyhan, M.D.
THE PSYCHOLOGICAL MANAGEMENT OF THE DEPRESSED PATIENT
Frederic F. Flach, M.D.
DEPRESSIVE ILLNESS IN CHILDHOOD AND ADOLESCENCE
Alfred M. Freedman, M.D.
THE USE OF ANTIDEPRESSANTS IN THE MEDICALLY ILL PATIENT
Thomas A. Ban, M.D.
THE CURRENT STATUS OF ECT
Robert J. Campbell, M.D.
THE PRESENT STATUS OF LITHIUM
Ralph A. O'Connell, M.D.
CREDIT: AMA Cat. 1 (6 hrs.)

Section on Physical Medicine and Rehabilitation with the New York Society of Physical Medicine and Rehabilitation
November 18, 1981—Wednesday, 8:00 p.m.
HARL HARPUDER MEMORIAL LECTURE
NOTES OF A NERVE AND MUSCLE WATCHER
Joseph Goodgold, M.D.
Reception: 6:00 p.m. Subscription Dinner: 7:00 p.m.
CREDIT: AMA Cat. 1 (2 hrs.)

Section on Radiology with the New York Roentgen Society
November 23, 1981—Monday, 4:00 p.m.
* Hosack Hall, 4:00-5:30 p.m.
BONE RADIOLOGY
RADIOGRAPHIC SIGNS DIFFERENTIATING OSTEOCHONDROMA FROM PERIPHERAL CHONDROSARCOMA
Alex Norman, M.D.
ORTHOPEDIC PROBLEMS IN NEUROMUSCULAR DISORDERS
Amy Beth Goldman, M.D.
ASSESSMENT OF A CURVED SPINE
Robert Wilkinson, M.D.
Visiting Professor's Lecture
* Hosack Hall, 5:30-6:30 p.m.
REACTIONS TO TRAUMA IN THE GROWING SKELETON
Robert Wilkinson, M.D.
* Room 441, 4:00-6:00 p.m.
TREATMENT OF CENTRAL NERVOUS SYSTEM TUMORS
Chu H. Chang, M.D.
BRAIN TUMOR STUDY GROUP EXPERIENCE
William Shapiro, M.D.
THE ROLE OF RADIATION THERAPY
Paul Urtasun, M.D.
THE ROLE OF SURGERY
Joseph Ranshohoff, M.D.
Reception, Dinner and Business meeting at Presidents' Gallery, 6:30 P.M.
Residents' Quiz
at Hosack Hall, 6:30-7:15 p.m.
CREDIT: AMA Cat. 1 (2½ hrs.)

The New York Hospital-Cornell Medical Center

Department of Psychiatry
525 East 68th Street, New York 10021
* Payne Whitney Clinic
November 15, 1981—Sunday
ADVANCED WORKSHOP IN THE EVALUATION OF SEXUAL DISORDERS
Helen Singer Kaplan, M.D.
For information concerning registration and tuition fees, contact Ruth Pollack. Tel: 212/472-4344.

Beth Israel Medical Center Cosponsored by The Page and William Black Post-Graduate School of the Mount Sinai School of Medicine, CUNY

10 Nathan D. Perlman Place, New York 10003
* Podell Auditorium
November 14-15, 1981—Saturday and Sunday, 8:00 a.m.-5:30 p.m.
SHORT-TERM DYNAMIC PSYCHOTHERAPY
Drs. Arnold Winston and Habib Davanloo

FEE: To be announced. CREDIT: AMA Cat. 1 (15 hrs.)

* Loeb Auditorium/Hospital for Joint Diseases/Orthopaedic Institute
301 East 17th Street, New York 10003

November 11, 1981—Tuesday, 8:30-4:00 p.m.
URINARY STRESS INCONTINENCE
Zafar Khan, M.D.
CREDIT: AMA Cat. 1 (5.5 hrs.)

November 19, 1981—Thursday, 7:30 p.m.-10:00 p.m.
MINUCHIN UNABRIDGED
Dorcas Cofer, Ph.D.
FEE: $20. per presentation CREDIT: AMA Cat. 1

November 4 & 18, 1981—Wednesday, 7:00-9:00 p.m.
STRUCTURAL FAMILY THERAPY: THEORY AND PRACTICE
Dorcas Cofer, Ph.D.
CREDIT: AMA Cat. 1
For further information contact Beverly R. Baptiste, Post Graduate Education Office, Beth Israel Medical Center. Tel: 212/420-2000.

Leukemia Society of America, Inc.

New York City Chapter, 215 Lexington Avenue
New York 10016

* Cornell Medical College

November 20, 1981, Friday
ONE DAY SEMINAR FOR SUPPORT PERSONNEL CARING FOR LEUKEMIA PATIENTS
CREDIT: Cat. 1 credits
For further information contact The Leukemia Society at 212/679-1939.

Metropolitan Hospital Center—Department of Pathology in Affiliation with New York Medical College

*Metropolitan Hospital

November 4, 1981—Wednesday, 3:30 p.m.
MONTHLY SLIDE SEMINAR—CHEMISTRY
Desmond M. Burke, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)
For further information contact Victor Tchertkoff, M.D. Coordinator, Metropolitan Hospital Center, 1901 First Avenue, New York, Tel. 212/360-6253

Westchester Square Hospital in Collaboration with Albert Einstein College of Medicine

* Conference Room
2475 St. Raymond Avenue, Bronx 10461

November 4, 1981—Wednesday, 4:00 p.m.—5:30 p.m.
ELECTROCARDIOGRAMS THAT SIMULATE MYOCARDIAL INFARCTION
Emanuel Goldberger, M.D.

November 18, 1981—Wednesday, 4:00 p.m.-5:30 p.m.
THERAPY OF THE OLDER DIABETIC
Samuel M. Rosen, M.D.
CREDIT: AMA Cat. 1

QUEENS COUNTY

Astoria General Hospital-Albert Einstein College of Medicine

* CONFERENCE ROOM
Astoria General Hospital
25-10 30th Avenue, Long Island City

November 14, 1981—Saturday, 9:00 a.m.-11:00 a.m.
URINARY TRACT PROBLEMS OF THE ELDERLY (RECURRENT UTI'S, OBSTRUCTION, INCONTINENCE, USE OF CATHETERS)
Selwys Freed, M.D.
CREDIT: AMA Cat. 1
For further information contact 212/932-1000, Ext. 200.

Long Island Jewish-Hillside Medical Center Sponsored by Departments of Medicine, Long Island Jewish-Hillside Medical Center and Queens Hospital Center Affiliation and The Health Sciences Center State University of New York at Stony Brook

* Nurses' Auditorium
Queens Hospital Center
82-68 164th Street, Jamaica, N.Y.

November 8, 1981—8:30 a.m.-1:00 p.m.
DIABETES MELLITUS TREATMENT UPDATE
Selim Baruh, M.D.
FEE: $30. CREDIT: AMA Cat. 1
For further information contact Ann J. Boehme, CME Coordinator, Long Island Jewish Hillside Medical Center, New Hyde Park, New York 11042. Tel: 212/470-2114.

NASSAU COUNTY

American Society for Surgery of the Hand and The New York Society for Surgery of the Hand

* Harrison House in Glen Cove

November 7, 1981—Saturday, 8:30 a.m.-4:30 p.m.
PRIMARY HAND CARE UPDATE
FEE: $45. Physicians
$25. Residents, Nurses
CREDIT: AMA Cat. 1
For further information contact Ronald M. Match, M.D., 10 Medical Plaza, Glen Cove, New York 11542. Tel: 516/671-8779.

Long Beach Memorial Hospital in affiliation with The Page and William Black Postgraduate School of Medicine of The Mount Sinai School of Medicine (CUNY)

* Hospital Auditorium
455 East Bay Drive, Long Beach

November 3, 1981—Tuesday, 4:00 p.m.-6:00 p.m.
THE AGING EYE—CATARACTS, GLAUCOMA, DIABETIC RETINOPATHY
Stephen A. Obstbaum, M.D.
CREDIT: AMA Cat. 1
For further information contact the Community Relations Department. Tel: 516/432-8000, Ext. 362.

Long Island Jewish-Hillside Medical Center and the Health Sciences Center State University of New York at Stony Brook, sponsored by Department of Surgery New Hyde Park, New York 11042

* Teaching Center Auditorium, Room 201A
DEPARTMENT OF SURGERY GRAND ROUNDS 1981-1982

Thursdays, September 3, 1981 thru June 24, 1982

November 5, 1981—8:30 a.m.-9:30 a.m.
UNUSUAL ENDOCRINE TUMORS OF THE PANCREAS
Irving Modlin, M.D.

November 12, 1981—8:30 a.m.-9:30 a.m.
LIVER TRAUMA
H. Leon Pachter, M.D.

November 19, 1981—8:30 a.m.-9:30 a.m.
REAPPRAISAL OF PERITONEAL VENOUS SHUNT
Harry LeVeen, M.D.

CREDIT: AMA Cat. 1
For further information contact Reid Aaron. Tel: 212/470-2663.

Nassau Academy of Medicine

1200 Stewart Avenue, Garden City, New York 11530
November 11, 1981—Wednesday, 8:00 a.m.–5:00 p.m.
CERVICO-THORACIC SYNDROMES
Arminius Cassvan, M.D.
FEES: $35. Members, $60. Non Members & Allied Health Professionals, $15. Residents, Interns & Students.
CREDIT: AMA Cat. 1 (7 hrs.)
For further information contact Mr. William Egan, Assistant Executive Director. Tel: 516/832-2305.

SUFFOLK COUNTY

The Suffolk Academy of Medicine

850 Veterans Memorial Highway, Hauppauge, New York 11787
November 8, 1981, Sunday, 9:00 a.m.–1:45 p.m.
THE ETIOLOGY AND MANAGEMENT OF PAIN
TECHNIQUES IN THE CLINICAL MANAGEMENT OF PAIN
Raymond W. Houde, M.D.
SURGICAL PROCEDURES FOR THE RELIEF OF PAIN
Stephen L. Weitz, M.D.
MAINTENANCE THERAPY IN CHRONIC PAIN
Thomas G. Kantor, M.D.
BEHAVIORAL APPROACHES TO PAIN
Rene Mastrovito, M.D.
FEE: $60. SAM MEMBERS, $75. Non Members
$25. Residents, etc.
CREDIT: AMA & AAFP Cat. 1 (4 hrs.)
For further information contact Adrienne Rosof, CME Coordinator. Tel: 516/265-6666.

State University of New York at Stony Brook

* Health Sciences Center
November 12, 1981—Thursday
POLISH-AMERICAN ONCOLOGY CONFERENCE ON GASTRIC CANCER
FEES: $55. CREDITS: AMA Cat. 1 (6 hrs.)
For further information, contact Dr. Tamarath K. Yolles, Associate Dean for CME, Stony Brook, New York 11794. Tel: 516/246-2094/2135.

St. Charles Hospital

200 Belle Terre Road
Port Jefferson
* St. Charles Lecture Room
November 2, 1981—Monday, 11:45 a.m.–1:15 p.m.
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
* St. Charles Classroom "A"
November 5, 1981—Friday, 8:00 a.m.
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH HILLSIDE MEDICAL CENTER
* St. Charles Lecture Room
November 9, 1981—Monday, 11:45 a.m.–1:15 p.m.
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
* St. Charles Classroom "A"
November 10, 1981—Tuesday, 11:00 a.m.
OB/GYN CONFERENCE
COLLAGEN DISEASE IN PREGNANCY
Ronald Bennett, M.D.
* St. Charles Classroom "A"
November 13, 1981—Friday, 8:00 a.m.
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH HILLSIDE MEDICAL CENTER
* St. Charles Board Room
November 16, 1981—Monday, 7:00 a.m.
ANESTHESIOLOGY CONFERENCE
PULMONARY ASPIRATION IN THE OBSTETRICAL PATIENT
Edward A. Norris, M.D.
* St. Charles Lecture Room
November 16, 1981—Monday, 7:30 a.m.
OPHTHALMOLOGY CONFERENCE
OCULOPLASTIC SURGERY
John G. Appison, M.D.
* St. Charles Lecture Room
November 16, 1981—Monday, 11:45 a.m.–1:45 p.m.
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
* St. Charles Classroom "A"
November 20, 1981—Friday, 8:00 a.m.
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH HILLSIDE MEDICAL CENTER
* St. Charles Lecture Room
November 23, 1981—Monday, 11:45–1:15 p.m.
TUMOR CONFERENCE
PREMALIGNANT BREAST LESIONS. IS SURGERY INDICATED?
Frank O'Boyle, M.D., Francisco F. Pechera, M.D.
* St. Charles Lecture Room
November 30, 1981—Monday, 11:45 a.m.–1:15 p.m.
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
For further information contact Mary Rotolo, Department of Medical Education, St. Charles Hospital, Port Jefferson. Tel: 516/473-2800.

Mather Memorial Hospital

North Country Road
Port Jefferson
* Mather Memorial Conference Room
November 9, 1981, Monday, 7:00 p.m.–10:00 p.m.
POST GRADUATE DENTAL PROGRAM
DIAGNOSIS AND AUSCULTATION OF THE CARDIOVASCULAR SYSTEM
Victor L. Cangelosi, M.D.
* Mather Memorial Conference Room
November 10, 1981—Tuesday, 11:30 a.m.–1:00 p.m.
WEEKLY EDUCATIONAL SERIES
INHALED THERAPY IN THE TREATMENT OF COPD
Mark Schiff, M.D.
* Mather Memorial Conference Room
November 11, 1981—Wednesday, 7:30 a.m.
PSYCHIATRIC CONFERENCE
NEW STUDIES OF DEPRESSION DISORDERS
Frederic Quitkin, M.D.
* Mather Memorial Conference Room
November 17, 1981—Tuesday, 11:30 a.m.–1:00 p.m.
WEEKLY EDUCATIONAL SERIES
ACCIDENTAL HYPOTHERMIA—A REVIEW OF PRACTICAL REWARMING METHODS
Cmdr. Albert M. Steinman, M.D.
* Mather Memorial Conference Room
November 24, 1981—Tuesday, 8:00 a.m.
PEDIATRIC CONFERENCE
ADVANCES IN THE DIAGNOSIS OF PEDIATRIC HEART DISEASE
Milton Jesse Reitman, M.D.
* Mather Memorial Conference Room
November 25, 1981—Tuesday, 11:30 a.m.–1:00 p.m.
WEEKLY EDUCATIONAL SERIES
THE EFFECTS OF AGE AND BLOOD PRESSURE ON KIDNEY FUNCTION
Donald G. Vidt, M.D.
For further information contact Mary Rotolo, Department of Medical Education, Mather Memorial Hospital, Port Jefferson, New York 11777. Tel: 516/473-1320.

WESTCHESTER COUNTY

The New York State Society of Anesthesiologists, Inc.

* Westchester Academy of Medicine
Purchase, New York
November 19, 1981
ANESTHESIOLOGY UPDATE
CREDIT: AMA Cat. 1
For further information contact Kurt G. Becker. Tel: 212/867-7140.

SYRACUSE

State University of New York Upstate Medical Center

750 E. Adams Street, Syracuse 13210
* HOTEL SYRACUSE—2nd Floor Conference Center
South Warren Street, Syracuse, New York
November 12–14, Wednesday thru Friday
ADVANCED CARDIAC LIFE SUPPORT: PROVIDERS/INSTRUCTORS COURSE

FEE: Advanced Cardiac Life Support Provider's Course (alone)	$150.
With Basic Life Support Course (Wednesday Evening)	$175.
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With Both Basic & Instructor's Courses	$225.

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BUFFALO

Cardiac Study Fund

Box 114, Hiler Branch, Buffalo 14223
* Hyatt Palm Beaches Hotel
February 22–24, 1982
FEBRUARY COURSE IN ARRHYTHMIAS
For Family Physicians & Internists
February 25–27, 1982
WINTER SYMPOSIUM FOR PRIMARY CARE PHYSICIANS
For further information contact: Cardiac Study Fund, Box 114, Hiler Branch, Buffalo 14223. Tel: 716/836-5172 or 845-2165.

Roswell Park Memorial Institute Co-Sponsored by the Cancer Control Program of the Institute, and the American Cancer Society, New York State Div. and Erie County Unit

November 5, 1981—Thursday
CONTROVERSIES IN THE MANAGEMENT OF THYROID CANCER
Dr. John Lore
FEE: $25. for one day. CREDIT: AMA Cat. 1
For further information contact Gayle Bersani, R.N., Cancer Control Coordinator, Roswell Park Memorial Institute, 666 Elm Street, Buffalo 14263. Tel: 716/845-4406.

NEW PALTZ

Mid-Hudson Consortium for the Advancement of Medical Education and New York Medical College

* State University College, New Paltz-Lecture Center 100
November 4, 1981—Wednesday, 8:30 a.m.–4:00 p.m.
CURRENT CONCEPT IN HEMATOLOGY
CURRENT CONCEPTS IN BLOOD COMPONENT THERAPY
Robert F. Reiss, M.D.
DIAGNOSIS OF PLATELET RELATED BLEEDING DISORDERS
Yale S. Arkel, M.D.
DIAGNOSIS AND MANAGEMENT OF THE THROMBOTIC EVENT: CLINICAL ASPECTS
Cedric J. Carter, M.D.
DEVELOPMENT OF COMMUNITY BASED HEMOPHILIA PROGRAMS
Marion Mackie, R.N.
LYMPHOMAS, HODGKINS' DISEASE: MEDICAL AND SURGICAL ASPECTS
John Horton, M.B., Ch.B.
FEE: $30. for physicians (includes lunch)
$15. for nurses & other health care professionals (includes lunch)
For further information call Rita McCarthy. Tel: 914/257-2240.

FUTURE EVENTS

North Shore University Hospital Co-Sponsored by Cornell University Medical College

* Manzanillo, Mexico
February 28–March 5, 1982
PERSPECTIVES IN PEDIATRICS
Fima Lifshitz, M.D.
CREDIT: AMA Cat. 1 (26 hrs.)
For further information contact Fima Lifshitz, M.D., Dept. of Pediatrics, North Shore University Hospital. Tel: 516/562-4635.

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June 26, 27, 28-1981

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3. Recent Trends In Cesarean Sections
4 Premature Rupture Of The Membranes: Premature Labor Syndrome
5. The Place Of Non-Stress Test In Post Datism
6. Overview Of Colposcopy & Treatment Of Intra-Epithelial Neoplasia Of The Cervix
7 Dysfunctional Uterine Bleeding: Endometrial Hyperplasia & Endometrial Carcinoma

CARDIOVASCULAR DISEASE

8. Is The Decline In Cardiovascular Mortality Real?
Reduction In Cardiovascular Mortality By Modification Of Primary Risk Factors
9. The Effects Of Long Term Exercise Training On PatientOutcome
10 Impact Of Improved Medical Management On
Cardiovascular Disease Mortality.
Panel Discussion & Questions

GASTROENTEROLOGY, & COLON, & RECTAL SURGERY RADIOLOGY

11 Intestinal Veneral Disease In 1980's
Colorectal View Of Venereal Disease
Panel Discussion
12. A.F.R. Andresen Honorary Memorial Lectureship Of The Medical Society Of The State Of New York
"Crohn's Disease Of The Duodenum"

14 Guidelines For The Use Of Flexible Colonscope
Mutual Aids: Radiologist & Endoscopist
15. Surgical Indications For Colonscopy - Do's And Don'ts
Panel Discussion

PREVENTIVE MEDICINE & PUBLIC HEALTH

16 Exercise: Change Of Lifestyle & Heart Disease
The Effectiveness Of Patient Education In Influencing Outcomes In Diabetes Mellitus
17 Lifestyle Management Strategies At New York Telephone Company
Government Strategies For Promoting Health Education & Illness Prevention
18. Reduction Of Heart Disease Risk Behaviors in Children: The Know Your Body Project
Panel Discussion

CANCER UPDATE 1981

19 Prostatic Carcinoma: Current Approach To Therapy
Ectopic Hormone Syndromes
Discussion
20 C.T. Scanning & Sonography In Tumor Diagnosis
Tumors Of The Gastrointestinal Tract
Discussion
21 Hospice: Maintaining The Dignity Of Life
New Developments In Cancer Chemotherapy
Identification Of Patients With Increased Susceptibility To Cancer
Discussion

Program Number
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OTOLARYNGOLOGY & MAXILLOFACIAL SURGERY

22. Role Of Nutrition In The Patient With Head And Neck Cancer
Myocutaneous Flaps
23 Thyroid Update
24 Management Of The Patient With Acoustic Neuroma
Recent Advances InEvaluation & Treatment Of Vocal Cord Paralysis

MEDICAL-LEGAL & WORKERS COMPENSATION MATTERS OCCUPATIONAL MEDICINE

25. The Private Practice Of Occupational Medicine Viewpoint
26. The Rehabilitation Viewpoint
27 The Social Security Viewpoint
The Orthopedic Viewpoint
Panel Discussion

CHEST DISEASES

28. Computerized Axial Tomography (C.A.T.) Scan vs. Biopsies
Invasive Procedures: Bronchoscopy, Pleural & Pulmonary Biopsy
29. Useful Blood Tests In Diagnosis & Treatment
30. The 31st Annual Howard C. Lilienthal Memorial Lecture

DERMOTOLOGY & SYPHILOLOGY

32. Sexually Transmitted Diseases In The 1980's: An Overview
Syphilis & Other Sexually Transmitted Diseases In The Gay Scene
Discussion
33 Other Sexually Transmitted Diseases: Genital Herpes, Warts, Molluscum,
Pediculosis
Current Therapies For Sexually Transmitted Diseases
Discussion

ALCOHOL AND THE UNBORN

34. Fetal Alcohol Syndrome & Alcohol Related Birth Defects -Harold Nitowski
Drinking & Pregnancy - Review Of Current Research
35. Women & Alcohol
Fetal Alcohol Syndrome - Amol Lele, M.D.
Panel Discussion

UPDATE YOUR CARDIAC TESTING

36. The Evolution Of Stress Testing
Office Use Of Exercise Testing & Its Usefulness In Predicting Survival Fro
dial Infarction
37. Radionuclide-Based Techniques In Evaluating Patients With Coroary Arte
38. Radionuclide-Based Techniques In Evaluating Patients With Valvular Disea
diomyopathy
Including Thalium Perfusion
Panel Discussion
39 Echocardiography
Cardiac Catheterization
40 The Clinical Usefulness Of Holter Monitoring
Panel Discussion

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OPHTHALMOLOGY

itrectomy In Ocular Trauma
itrectomy In Diabetes
nterior Segment Vitrectomy With Special Reterence To Intraocular Lenses
itrectomy As An Adjunct To Retinal Surgery
blique Muscle Surgery, Indications & Techniques
urgical Treatment Of Eye Muscle Palsies
reatment Of Oouble Hypertropia
eoperations - Technical Problems At Surgery

NEUROSURGERY

ertinent Microsurgical Anatomy
osterior Fossa Aneuryms
osterior Fossa Arteriovenous Maltormation
ypass Surgery In The Posterior Fossa

PATHOLOGY, ORTHOPEDIC SURGERY, RADIOLOGY

he Immunology Of Joint Diseases
ynovial Fluid-A Oiagnostic Medium
uestions & Answers
oint Diseases - Howard D. Dorfman MO. & Alex Norman, MD.
uestions & Answers
n Overview Of Joint Replacement Therapy 1981
he Spine - An Ortgopedic & Radiologic Enigma
uestions & Answers

ANESTHESIOLOGY, SURGERY & UROLOGY

aphael W. Robertazzi Memorial Lecture:
gmt. & Prevention Ot Organ Oamage In Traumatized Patient Techniques In The
valuation Of Abdominal Trauma
reatment Ot Complex Abdominal Injuries
he Etiology, Diagnosis, And Treatment Of Bladder Trauma
urrent Mgmt. Of Traumatic Chest Injuries
urrent Evaluation & Treatment Of Genitourinary Trauma
onitoring Of Seriously Ill Trauma Patients
uestions & Answers

COMPUTER ASSISTED OFFICE PRACTICE: RECENT PROGRESS

mportance Of Accurate Coding Of Medical Terms
omputer-Based Automated Encoding Ot Medical Terms
emonstration Ot Automated Encoding Of Medical Terms
omputerization Of The Office Records In The Cardiologists Practice
linical Aspects Of A Computer-Based Medical Knowledge Bank
emonstration Of Computer-Supported Ottice Practicce & General Oiscussion

*Certain sessions may require speaker approval before releasing for sale

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THE ALBION O. BERNSTEIN, M.D. AWARD LECTURE

61 Producing Monoclonal Homogeneous Antibodies By Hybridoma Technique

PEDIATRICS - SCHOOL HEALTH

62 An Overview Of The Function Of The Committee On The Handicapped
The Role Of The Physician On The Committee On The Handicapped
63 Related Services, Physical and/or Occupational Therapy
64 New York State Mandates And P.L.94-142
65 Panel Discussion

ALLERGY & IMMUNOLOGY

66 Urticaria: A New Look
Food Allergy & Additives
67 Insect Allergy - A Model For Immunotherapy
68 Asthma Update - 80's
Patients As Consumers - Problems For Physicians In The 80's
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NEUROLOGY

69 Life-Styles & Their Interaction With Multiple Sclerosis
Life-Styles & Their Interactions With Victims Of Head Trauma
70 Life-Styles & Their Interaction With The Epileptic
Life-Styles & Their Interaction With The Alcoholic
Questions & Answers

PLASTIC, RECONSTRUCTIVE, AND MAXILLOFACIAL SURGERY, ORTHOPEDIC SURGERY, PHYSICAL MEDICI

71 Current Concepts Of Bony Mgmt. & Fixation
Traditional Principles Of Soft Tissue Mgmt.
72 War-Time Experiences With Compound Injuries Of The Lower Limb
Newer Concepts Of soft Tissue Mgmt. & Bony Coverage
The Microsurgical Approach To Compound Injuries Of The Lower Limb
73 Replantation Surgery Of The Lower Limb
Nerve Injuries & Their Mgmt. In Injuries Of The Lower Limb
74 Rehabilitative Mgmt. Of Compound Injuries Of The Lower Limb
Electrodiagnostic Evaluation Of Peripheral Nerve Injuries Of The Lower Limb
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FAMILY & GENERAL PRACTICE PSYCHIATRY

75 New Prospects For Mental Health In The Eighties
The Women Patient & Doctor Relationship
76 Brain Site Specificity Of The Psychotropic Medications
Pharmacotherapy Of The Depressions
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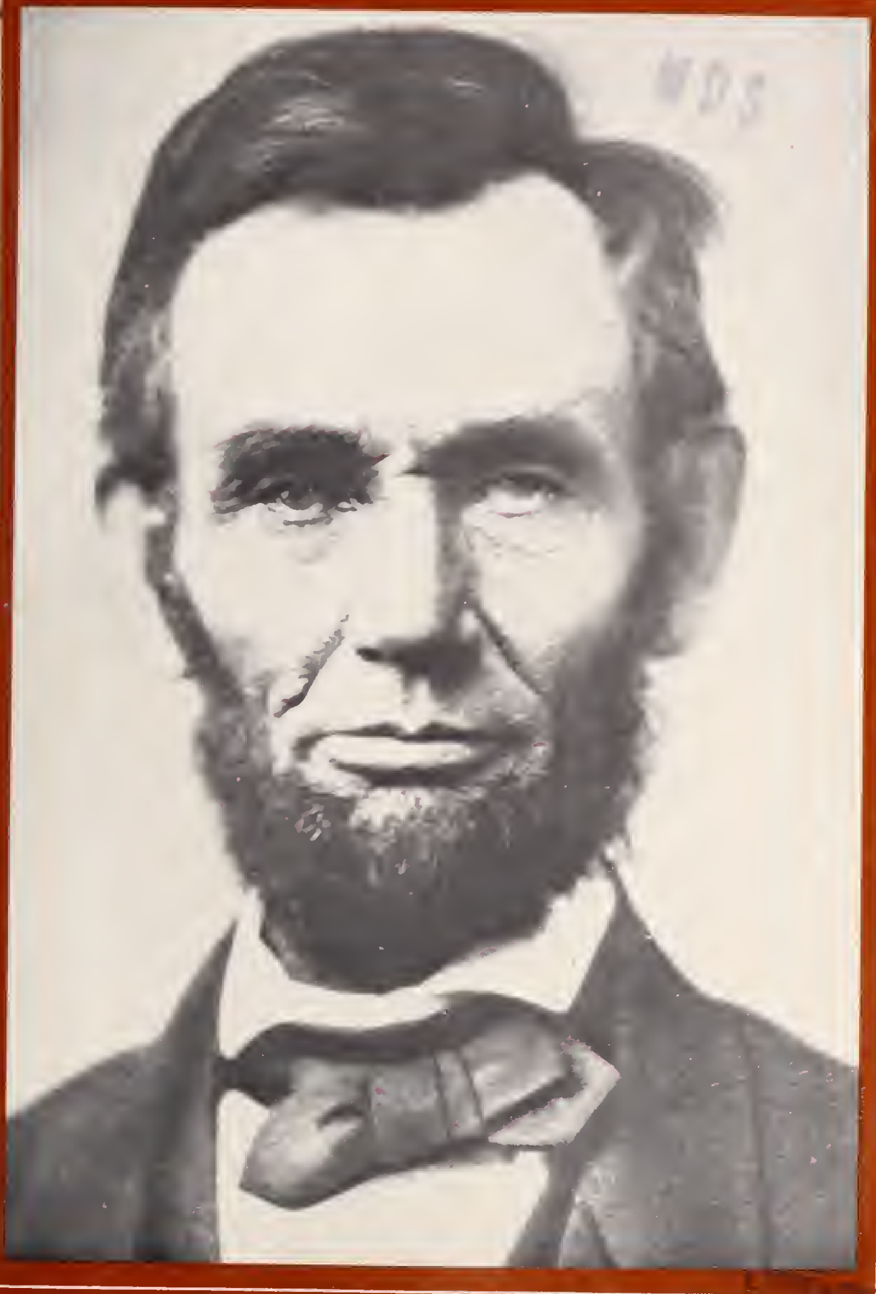

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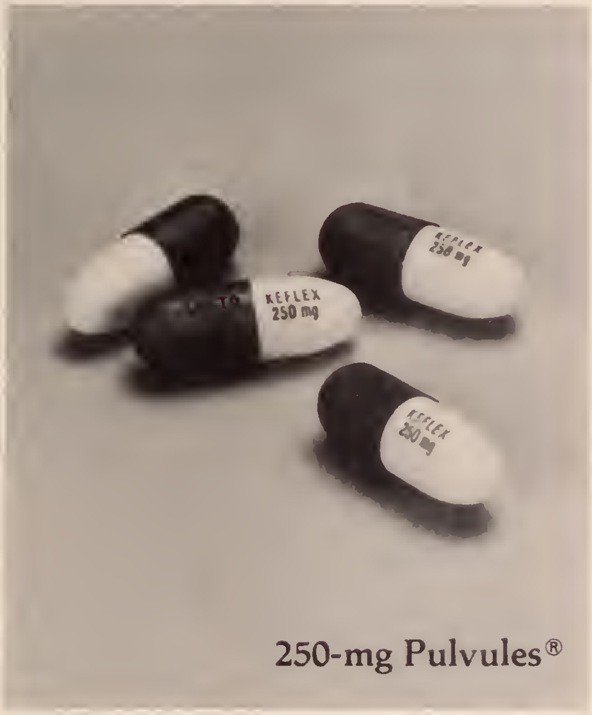

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Letters to the Editor

Many thanks, Dr. Halsted

To the Editor: May I humbly correct two of the statements made by Dr. Breidenbach[1] in his letter to you in the July, 1981, issue of the Journal. I, too, admire the work of Dr. Halsted and I am certain that he would want the record of his achievements to be accurate.

The use of rubber gloves in the operating room was not an invention of Dr. Halsted. Indeed, the surgical glove has experienced many changes since Walbaum first used and described a sheep cecum as a covering for his hand in 1758. The story of the "The Surgeon's Glove" has been well presented by Randers-Pehrson.[2]

Halsted had little to do with the idea of using gloves in the operating room and only makes passing comment on their use in 1894[3] and 1913.[4] He confesses "it is remarkable that during the four or five years when as operator I wore them only occasionally, we could have been so blind as not to have perceived the necessity of wearing them invariably in the operating room." [4]

As far as cholecystectomy is concerned, Langenbuch is credited with the first cholecystectomy in 1882 and Ohage did the first cholecystectomy in the United States in 1887.[5] Halsted made many contributions to surgery of the biliary tract but he cannot be granted credit for the first cholecystectomy in North America.

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2. Randers-Pehrson, J.: The Surgeon's Glove, Springfield, Charles C Thomas, 1981, p. 53.
3. Halsted, W. S.: The results of operations for care of cancer of breast performed at the Johns Hopkins Hospital from June, 1889, to January, 1894, Johns Hopkins Repts. 4: 297 (1894).
4. Idem: Ligature and suture material, J.A.M.A. 60: 1119 (1913).
5. Remine, W. H., Hughes, R. W., and Remine, S. G.: Surgery of biliary system, in Byrne, J. J.: General Surgery, 3rd ed., Hagerstown, Harper and Row, 1980.

Dr. Breidenbach's reply

To the Editor: I said: "In 1880 Halsted performed the first recorded cholecystectomy in North America." My reasonably diligent research has not turned up a record of an earlier one.

Dr. Halsted's own statement on the subject was as follows: "In 1880 or 1881 I performed my first gall-stone operation. At that time only one or two operations for gall-stones had been performed in this country." [1]

A book titled "Famous First Facts," by Joseph Nathan Kone, in the extensive library of the New York Academy of Medicine, cites a report in "Transactions of the Indiana Medical Society, 1868," that on July 15, 1867, John Bobbs, M.D., of Indianapolis, performed a lithotomy of the gallbladder, (that is, extracting stones without removing the gallbladder).

Carl Johann August Langenbuch, master surgeon of the biliary system and chief of Lazarus Krankenhaus, Berlin, (presumably the Langenbuch to whom Dr. Miller refers) performed "the first cholecystectomy in man" on July 15, 1882, according to an article by Bela Halpert, M.D., in "Archives of Surgery," volume 25, page 178.

In "General Surgery," (1972, Harper & Row) the chapter on biliary surgery, written by W. H. Remine, Pollin W. Hughes, and Stephan G. Remine, mentions Ohage as having performed the first cholecystectomy in the United States in 1887.

"Medical Discoveries," by J. E. Schmidt, Ph.B.S., M.D., Litt.D., (Charles C Thomas, publisher) states that Hildadus Fabricas, German surgeon, was the first to remove a stone from the gallbladder of a living person, in 1618.

As to gloves, I wrote: "The use of gloves in the operating room was another of Halsted's innovations." Halsted's own statement on their introduction was as follows: "In the winter of 1889 or 1890—I cannot recall the month—the nurse in charge of my operating room complained that the solutions of mercuric chlorid produced a dermatitis of her hands and arms. As she was an unusually efficient woman, I gave the matter my consideration and one day in New York requested the Goodyear Rubber Company to make as an experiment two pairs of thin rubber gloves with gauntlets. On trial these proved to be so satisfactory that additional gloves were ordered." [2]

Two of Halsted's contemporaries, who were among the giants of this country's medical history, gave him credit for this innovation. Halsted quotes one of them, Joseph C. Bloodgood, M.D.,[2] one of his surgical residents, as saying: "Rubber gloves were introduced by Professor Halsted in 1889 soon after the hospital opened."

In 1886 Halsted was one of the 16 men who enroled in the first course given at Hopkins by William H. Welch, M.D., professor of pathology, and his lieutenants, William T. Councilman, M.D., and Franklin P. Mall, M.D. In 1930, Dr. Councilman, in a letter to W. G. MacCallum, M.D., said: "The use of the rubber glove is, I think, one of Halsted's great contributions to surgery." [3]

According to "The Surgeon's Glove," by Justine Randers Peterson, M.A., (Charles C Thomas, publisher) Dr. Johann Julius Walbaum in 1758 published a description of an obstetrical glove of sheep's cecum that he had devised 11 years earlier. It covered only the middle finger, ring finger, little finger, and the back of the hand, leaving the thumb and index finger free. The hand and glove were then smeared with fat, all this to prevent the obstetrician's hand from sticking to the vaginal tissue of the patient and the fingernails from scratching her. This would seem to have been a worthy attempt that left much to be desired in the way of asepsis.

"So, let no one cecum to the temptation to splatter Dr. Halsted's great record of achievements with half-a-handful

of tripe."

LESTER BREIDENBACH, M.D.
25 Sutton Place South
New York, NY. 10022

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1. Halstead, W. S.: Surgical Papers, The Johns Hopkins Press, MDCCCXXIV, vol. 2, p. 428.
2. Idem: Ibid., vol. 1, pp. 38–39.
3. Crowe, S. J.: Halstead of Johns Hopkins, the Man and His Men, Springfield, 1957, Charles C Thomas.

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tractate con criotherapia per neoplasia cervical debe esser "monitorisate" frequentemente e per un periodo longe per que le morbo residual disveloppa in circa del 10 pro cento casos, e pote esser non recognoscite durante multe menses o annos depost le tractamento.

Komisar, A., e Ruben, R. J.: Uso del laser CO_2 in morbos otolaryngologic pediatric, **New York State J. Med. 81:** 1761 (Novembre) 1981.

Le laser CO_2 chirurgic pote esser un addition de valor al armamentarium standard pro le tractamento de morbos otolaryngologic in pueros (pediatric). Le laser he essite usate in le Hospital del Albert Einstein College of Medicine pro le tractamento de: stenosis subglottic papillomata del vias respiratori, hemangioma laryngeal, atresia choanal e tonsillectomias. Le resultatos melior esseva obtenite in casos de papillomata laryngeal e tracheal. Le laser es etiam effective in le stenosis subglottic debite a granulationes e hemorrhagias subglottic. Le atresia choanal e tonsillectomias poteva esser facite quando le laser esseva usate juncto con le technicas chirurgic standard.

Pressman, P. I.: "Lumpectomia" e chimiotherapia, un methodo non probate pro le tractamento del cancer mammari, **New York State J. Med. 81:** 1765 (Novembre) 1981.

Actualmente existe certe confusion in patientes e su medicos supra le tractamento del carcinoma mammari quando le patientes refusa le mastectomia o le operation non es consiliabile per rationes medical. Le "lumpectomia""lump" in anglese es equivalente a tumor o cyste) seguite de chimiotherapia es facite occasionalmente como le sol forma de tractamento de iste typo de cancer. Iste es un mal interpretation del rolo del chimiotherapia adjunctive, le qual, propriemente administrate, e juncto con le therapia local (mastectomia o radiotherapia) pro tractar micrometastases in patientes con trovatos positive in le nodulos axillari. Duo (2) casos es presentate que demonstra un disveloppamento' persistente del cancer mammari in le casos tractate solmente con le lumpectomia e chimiotherapia. Totavia non es possibile selectionar le agentes chimiotherapeutic que poteva substituir le tractamento local adequate.

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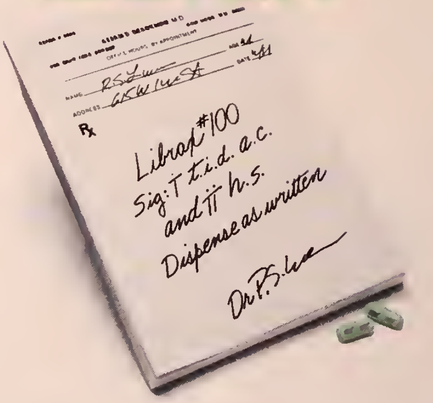

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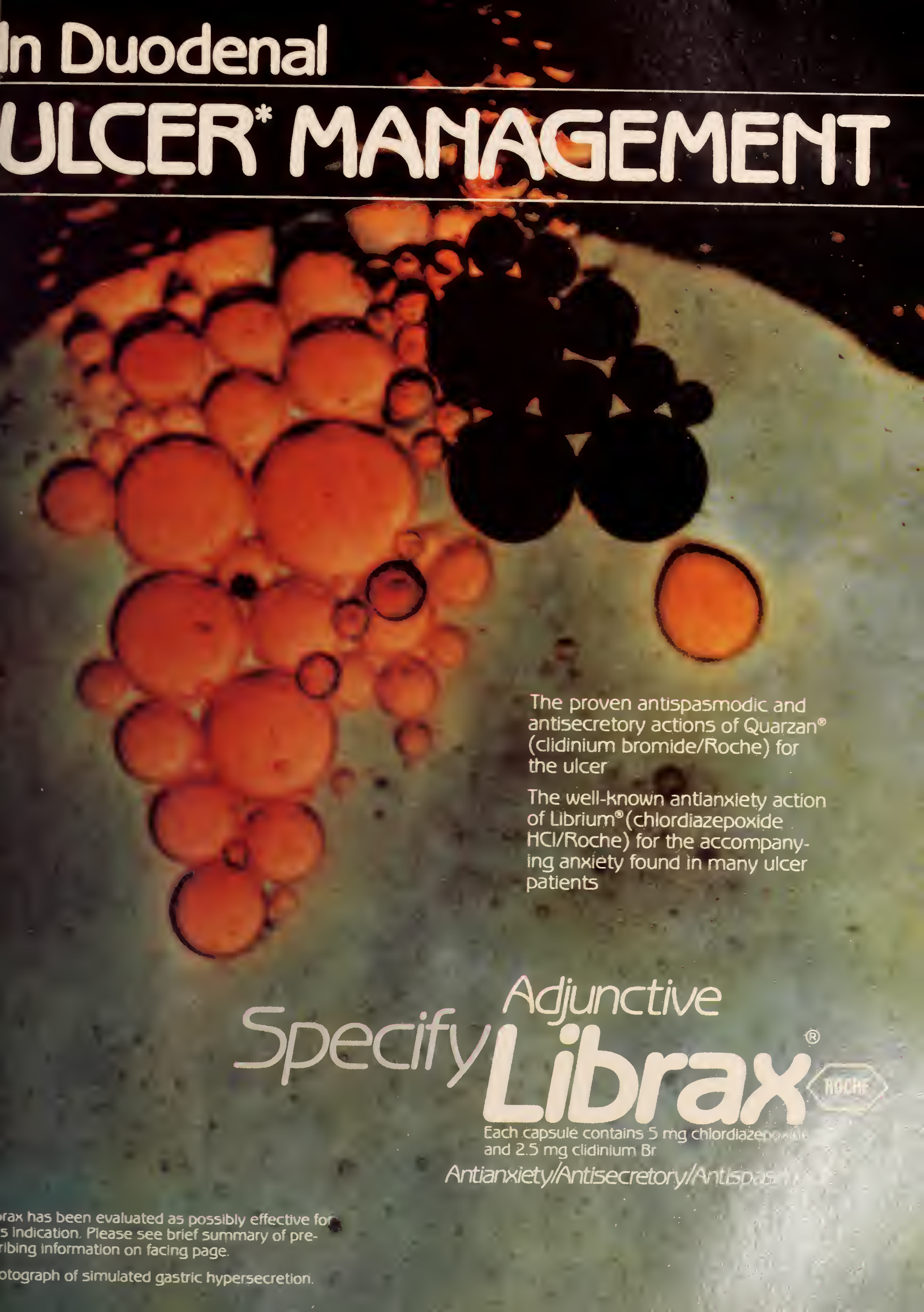

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otograph of simulated gastric hypersecretion.

Abstracts

Rustgi, R. N., and Bettigole, R. E.: Nonanemic pernicious anemia and delay in diagnosis, **New York State J. Med. 81:** 1739 (Nov.) 1981.

Three patients with macrocytosis and normal or slightly subnormal hemoglobin value were found to have pernicious anemia after a delay of 40 to 91 months. This delay occurred because macrocytosis was unnoticed until significant anemia developed. The fourth patient had macrocytosis with a normal hemoglobin. However, after vitamin B_{12} therapy, the hemoglobin rose to a higher normal value. These patients show that macrocytosis may precede anemia by several years in the development of pernicious anemia. Emphasis is placed on proper attention to the mean corpuscular volume so that pernicious anemia can be diagnosed and treated at an early stage, avoiding its complications.

Rubins, J. M., and Woll, J. E.: Immune thrombocytopenic purpura; need for an individualized approach, **New York State J. Med.** 81: 1743 (Nov.) 1981.

A retrospective study of patients with ITP (immune thrombocytopenic purpura) treated in a community hospital during 1974 to 1980 is presented. Eighty percent of patients, or 16 of 20, less than 55 years of age required splenectomy, compared with only 25 percent, or 2 of 8, of those older than 55. No differences in the duration of symptoms, platelet count, or severity of illness was noted between the two groups. Three of four younger patients who did not require splenectomy were diagnosed during pregnancy or at the time of delivery. A conservative approach may therefore be indicated in certain selected subgroups of patients with ITP.

Nissenblatt, M. J., Ludwig, S., Feinsmith, N., and Sciorra, L.: Scleroderma and esophageal carcinoma: chromosomal abnormalities in a patient, **New York State J. Med.** 81: 1748 (Nov.) 1981.

A 58-year-old black male developed squamous cell carcinoma of the esophagus 14 months after the clinical onset of PSS (progressive systemic sclerosis) and three months after the pathologic diagnosis of PSS. Chromosomal breaks were found in all somatic cells sampled, and a possible linkage between this patient's PSS and cancer is considered.

Lieberman, A. N., Goldstein, M., Neophytides, A., Leibowitz, M., Gopinathan, G., Goodgold, A., Pact, V., and Walker, R.: Use of lisuride in advanced Parkinson's disease; potent dopamine and serotonin agonist, **New York State J. Med.** 81: 1751 (Nov.) 1981.

Lisuride hydrogen maleate, a semisynthetic ergoline and potent central nervous system dopamine and serotonin agonist, was used alone in 10 patients with moderately advanced PD (Parkinson's disease) or combined with levodopa in 20 patients with more advanced PD whose response to levodopa had diminished. The second group of 20 patients included 14 with diurnal oscillations in performance ("wearing off" and/or "on-off" phenomena). For all 30 patients there was a significant decrease in disability as assessed in both the "on" and, where applicable, the "off" period. Disability as assessed in the "on" period decreased by 31 percent from 42 ± 4.0 SEM (standard equivalent of the mean) to 29 ± 3.7. This is significant at 1 percent. Disability as assessed in the "off" period decreased by 14 percent from 73 ± 2.9 to 63 ± 4.1. This is significant at 5 percent. Among the 14 patients with diurnal oscillations in performance, lisuride resulted in a 109 percent increase in the time in which the patients were "on," from 4.6 to 9.6 hours. When used alone, the dose of lisuride was higher (3.6 mg.) than when it was used in combination with levodopa (2.4 mg.). Tachyphylaxis developed less frequently and later on the lower dose. Nine of the patients developed adverse mental changes similar to those described with the other dopamine agonists. The mental changes were reversible on discontinuation of the drug. Lisuride, when used alone or combined with levodopa, is a promising new anti-Parkinson drug.

Sedlis, A., Castadot, M.-J. and Glatt, B.: Cryotherapy in cervical disease, **New York State J. Med. 81:** 1757 (Nov.) 1981.

Two hundred and 21 women with CIN-1 and CIN-2 (mild or moderate cervical intraepithelial dysplasia) proved on colposcopic biopsy and 317 women with benign cervical disease were treated by cryotherapy. Of these, 178 CIN patients were followed from 6 to 80 months and monitored for residual disease with Papanicolaou smears and colposcopic biopsies; 43 patients were lost to follow-up. In 18 patients (10.1 percent) residual CIN-1, CIN-2, or progression to CIN-3 (severe dysplasia) was diagnosed from 6 to 50 months after cryotherapy; in 7 of these patients (39 percent), the diagnosis was made 18 or more months after treatment. Twelve patients with persistent CIN-1 or CIN-2 received second cryotherapy after which progression occurred in two patients and persistent disease was found in three. Six patients showed no residual CIN. CIN-1 or CIN-2 was diagnosed in 4 out of 181 women treated with cryotherapy for benign cervical disease. All patients treated with cryotherapy for cervical neoplasia must be closely monitored for long periods of time because the residual disease occurs in over 10 percent of cases and may not be recognized for many months or years.

Komisar, A., and Ruben, R. J.: Use of carbon dioxide laser in pediatric otolaryngologic disease, **New York State J. Med.** 81: 1761 (Nov.) 1981.

The carbon dioxide surgical laser can be a valuable addition to the standard armamentarium for treating pediatric otolaryngologic disease. The laser has been used at the Hospital of Albert Einstein College of Medicine to treat subglottic stenosis, respiratory papilloma, laryngeal hemangioma, choanal atresia, and for tonsillectomy. The best results were obtained with laryngeal and tracheal papilloma. The laser also was effective in subglottic ste-

continued on page 1733

Abstracts in Interlingua

Rustgi, R. N., e Bettigole, R. E.: Anemia perniciosa non anemic, e retardo del diagnose, **New York State J. Med.** 81: 1739 (Novembre) 1981.

In tres (3) patientes con macrocytosis e hemoglobina normal o levemente subnormal esseva diagnosticate anemia perniciosa (AP) con un retardo de 40 a 91 menses. Iste retardo del diagnose esseva debite a que le macrocytosis eseva trovate solmente quando le anemia habeva essite significative. Le patiente numero quatro (4) habeva macrocytosis con hemoglobina normal; mais, depost le therapia con vitamina B_{12} le hemoglobina augmentate a un nivello normal o plus elevate que le normal. Iste patientes demonstrate que le macrocytosis pote preceder al anemia per varie annos al disveloppamento del PA. Emphasis es locate supra le proprie attention al volumen corpuscular medie (in anglese: "MCV"), de maniera que le AP pote esser diagnosticate e tractate durante su stadio temprane, e ainsi evitar su complicationes.

Rubins, J. M., e Woll, J. E.: Purpura immuno-thrombocytopenic; necessitate de un approche individualisate, **New York State J Med.** 81: 1743 (Novembre) 1981.

Un studio retrospective de patientes con purpura immuno-thrombocytopenic (PIT) tractate in un hospital communitari desde 1974 a 1980 es presentate. Octanta (80) pro cento, o sia 16 de 20 patientes de minus que 55 annos de etate requireva splenectomia, in comparation con 25 pro cento, o sia 2 de 8 patientes de plus que 55 annos. Non habeva differentias del duration del symptomas, le conteo del plaquettas o del gravitate del morbo esseva observate inter le duo gruppos de patientes. Tres (3) de quatro (4) patientes juvene que non requireva splenectomia esseva diagnosticate durante le pregnantia o el tempore del parto. In consequentia, un approche conservative pote esser indicate in certe subgruppos de patientes selectionate que ha le PIT.

Nissenblatt, M. J., Ludwig, S., Feinsmith, N., e Sciorra, L.: Scleroderma e carcinoma esophagic; abnormalitates chromosomic in un patiente, **New York State J. Med.** 81: 1748 (Novembre) 1981.

In un patiente (homine) de 58 annos, del racia nigre, un carcinoma squamo-cellulari disveloppate 14 menses depost le initation de un sclerosis systemic progressive (SSP), e 3 menses depost le diagnose histologic del morbo. Le rupturas chromosomic esseva observate in omne cellulas somatic studiate; un relation possibile inter le SSP del patiente e le carcinoma esophagic esseva considerate.

Lieberman, A. N., Goldstein, M., Neophytides, A., Leibowitz, M., Gopinathan, G., Goodgold, A., Pact, V., e Walker, R.: Uso del lisurida in le morbo de Parkinson aviantate; dopamina potente e agonista del serotonina, **New York State J. Med.** 81: 1751 (Novembre) 1981.

Le maleato de lisurida hydrogenate, un ergolina semisynthetic e un dopamina potente supra le systema nervose central e etiam agonista del serotonina, esseva usate sol in 10 patientes con morbo de Parkinson moderatemente aviantiate, e etiam associate con levodopa in 20 patientes con iste morbo mais plus aviantate e cuje resposta al levodopa esseva diminuite. Le gruppo seconde de 20 patientes includeva 14 con oscillationes diurne de su morbo (phenomeno de fatiga—anglese: "wearing off" e/o de activitate—anglese: "on-off"). In omne 30 patientes habeva un reduction significative de su disabilitate secunde le evalutation tanto del periodo "on" (donde esseva applicabile) como del periodo "off". Le disabilitate, secunde le evalutation durante le periodo "on" descendeva in un 31 pro cento, desde 42 ± 4.0 "SEM" (in anglese: "Standard Equivalent of the Mean") a 29 ± 3.9. Iste es significative al 1 pro cento. Le disabilitate secunde le evalutation durante le periodo "off" decreceva in un 14 pro cento, desde 73 ± 2.9 a 63 ± 4. Iste es significative al 5 pro cento. Intra le 14 patientes con oscillationes diurne de su activitate ("performance"), le lisurida produceva un 109 pro cento de augmento del tempore durante le qual le patientes esseva in le periodo "on", desde 4.6 a 9.6 horas. Quando le lisurida esseva usate sol, le dose administrate esseva plus elevate (3.6 mg) que quando esseva usate associate al levodopa (2.4 mg). Tachyphylaxis disveloppava minus frequentemente e plus tardive quando le doses plus base esseva usate. Nove (9) del patientes disveloppate cambios mentales adverse similar al describite quando altere agonistas del dopamina esseva usate. Iste cambios mentales esseva reversibile depost le interruption del tractamento con le droga. Le lisurida usate, sol o in association con le levodopa, es un nove agente antiparkinsonian prometedori.

Sedlis, A., Castadot, M. J., e Glatt, B.: Criotherapia in le morbo cervical (uterine), **New York State J. Med. 81:** 1757 (Novembre) 1981.

Un total de 221 feminas con carcinoma del cervix uterine Grados CIN-1 e CIN-2 (leve o moderate dysplasia intraepithelial cervical) demonstrate mediante biopsias colposcopic, e 317 feminas con morbo benigne del cervix (cervicitis) esseva tractate con criotherapia. De iste casos, 178 patientes con CIN esseva seguite per 6 a 80 menses mediante examinationes seriate ("monitorisate") per morbo residual usante le cytoexamination de Papanicolaou e biopsias colposcopic. Quaranta-tres (43) patientes non poteva esser seguite in iste studio. In 18 patientes (10, 1 pro cento) CIN-1 esseva residual, e in 2 con CIN-2 un progression a CIN-3 esseva observate (dysplasia grave). Isto esseva diagnosticate de 6 a 56 menses depost le criotherapia. In 7 de iste patientes (39 pro cento), le mesme diagnose esseva facite de 18 a plus menses depost le tractamento criotherapeutic. De 12 patientes con CIN-1 o CIN-2 persistente, 2 recipeva un secunde criotherapia, mais progression disveloppate in 2 patientes; morbo persistente esseva trovate in 3 patientes. In 6 patientes, le CIN-1 residual non esseva observate. Le CIN-1 o CIN-2 esseva diagnosticate in 4 de 181 patientes tractate con criotherapia per morbo cervical benigne. Omne patientes

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Annotations of Books Received*

ALCOHOLISM

Caution—Kindness Can Be Dangerous to the Alcoholic. By Abraham J. Twersky, M.D. Englewood Cliffs, N.J., Prentice-Hall, 1981. Hardcover, 174 pages. Price, $

Information and support for those who live and work with people with drinking problems.

FOOD HABITS

Food, Ecology and Culture: Readings in the Anthropology of Dietary Practices. Edited by J. R. K. Robson. New York, Gordon & Breach Science Publishers, Inc., 1980. Illustrated, 143 pages. Hardcover, $

A collection of scientific essays on the sociocultural determinants of eating behavior.

NEOPLASMS

Progress in Cancer Control. Edited by Curtis Mettlin and Gerald R. Murphy. New York, Alan R. Liss, Inc., 1981. Illustrated, 236 pages. Cloth, $28.

Proceedings of the First Conference on Progress in Cancer Control, held in Buffalo, N.Y., September 29–30, 1980, and sponsored by The Association of American Cancer Institutes and Roswell Park Memorial Institute.

PHYSICIANS

The Doctor: Father Figure or Plumber. By James McCormick. London, England, Croom Helm, Ltd., 1979. Cloth, 171 pages. Price, $20. (Distributed in the U.S. By Biblio, 81 Adams St., Totowa, N.J. 07512)

An exploration of the differences between the physicians' conception of their role and society's view of what they should do and how they ought to behave.

BIOMECHANICS

Perspectives in Biomechanics. Volume 1: Parts A and B. Edited by H. Reul, D. N. Ghista, and G. Rau. New York, Harwood Academic Publishers, 1980. Illustrated, 2 volumes. Hardcover, $214.50.

A perspective on the scope and range of biomechanics.

FAMILY

Understanding the Family. Edited by Cathleen Getty, R.N., and Winnifred Humphreys, M.S.W. New York, Appleton-Century-Crofts, 1981. Softcover, 547 pages. Price, $16.95.

A study of the stresses and changes in American family life.

PATHOLOGY

Pathology Annual: Part I., 1981. Volume 16. Editors: Sheldon C. Sommers, M.D., and Paul Peter Rosen, M.D. New York, Appleton-Century-Crofts, 1981. Illustrated, 419 pages. Cloth, $38.50.

First part of the annual review of specific subjects in the field.

PSYCHIATRY

Modern Synopsis of Comprehensive Textbook of Psychiatry, III. Third edition. By Harold I. Kaplan, M.D., and Benjamin J. Sadock, M.D. Baltimore, Williams & Wilkins, 1981. Illustrated, 1,034 pages. Softcover, $34.

A synopsis of the three-volume Comprehensive Textbook—a concise textbook for the beginning medical student.

RADIATION EFFECTS

Seventh Symposium on Microdosimetry. Held September 8–12, 1980, at Oxford, U.K. Edited by J. Booz, H. G. Ebert, and H. D. Hartiel. New York, Harwood Academic Publishers, 1981. Illustrated, 1,588 pages. Hardcover, $240.

Influence of radiation quality on biological, biochemical, and psychochemical effects as explored by microdosimetry, the science of spatial and temporal distribution of energy deposition.

DRUGS—HANDBOOKS

Prescriber's Handbook of Therapeutic Drugs. By Harry Swartz, M.D. Oradell, N.J., Medical Economics Book Company, Book Division, 1981. Softcover, 193 pages. Price, $15.95.

Quick reference to essential prescribing information for the most commonly-used drugs—for the generalist.

FACILITY DESIGN AND CONSTRUCTION

Designing and Building your own Professional Office. By Murray Schwartz, D.D.S. With a foreword by Mark S. Masch, M.D. Oradell, N.J., Medical Economics Company, Book Division, 1981. Illustrated, 319 pages. Hardcover, $22.50.

Strategies for buying, building, or leasing and the step-by-step process of renovating and furnishing a professional office.

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* Books received for review are acknowledged promptly in this column. No other obligation is assumed for the courtesy of those sending them for this purpose. Selection for review is made on the basis of merit and reader interest.

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nosis due to granulations and in subglottic hemangioma. Choanal atresia and tonsillectomy could be performed when the laser was used in conjunction with standard surgical techniques.

Pressman, P. I.: Lumpectomy and chemotherapy: unproved method of treating breast cancer, **New York State J. Med.** 81: 1765 (Nov.) 1981.

Some confusion exists today among patients and their physicians as to how to treat a breast cancer when the patient refuses a mastectomy or the operation seems inadvisable for medical reasons. Lumpectomy, followed by chemotherapy, is occasionally performed as the only other treatment modality. This is a misinterpretation of the role of adjunctive chemotherapy, which is properly administered, in addition to adequate local therapy (mastectomy or radiation therapy) to treat micrometastases in patients whose axillary lymph nodes are positive for cancer. Two cases are presented which demonstrate persistent growth of carcinoma in the breast where the only treatment was lumpectomy and chemotherapy. It is not yet possible to select chemotherapeutic agents that can substitute for adequate local treatment.

Month in Washington

The late summer doldrums of the nation's capital were snapped with the return of Congress and top federal officials, including President Reagan, from summer vacations.

But the decision by the Administration to seek additional reductions in federal spending has tossed aside a hoped-for Congressional adjournment date of mid-October with mid-November being substituted. And this date is thought by many to be overly optimistic.

Despite its earlier history-making budget reduction of some $30 billion, the Administration is now faced with an estimated $60 billion deficit in this fiscal year (October 1, 1981) with even higher red ink margins forecast in the next two years.

In its drive to get the deficit down to $42.5 billion, the pre-August guess, some $18 billion of new cuts must be legislated. Health programs aren't a major target area, but few will escape the economy ax.

The President's urgent request for a second round of budget cuts would involve a reduction of $1 billion or more in federal health programs, already hit by the budget reconciliation measure approved last August.

Most of the President's proposed savings—$8.4 billion—would come from a 12 percent, across-the-board slice in appropriations for all domestic programs. The health programs at the HHS (Health and Human Services) Department currently are budgeted at about $6.5 billion,

Prepared by the Washington, D.C., office of the American Medical Association.

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meaning they would be reduced about $780 million. Further cuts apparently would come from Medicare and Medicaid.

The President said in a nationally-televised speech that he will seek $2.6 billion in cuts from entitlement programs in the budget not subject to the appropriations process. These include Medicare and Medicaid, but how much they would be hit remains to be seen.

The initial reaction from Congress was that the Administration will have a much tougher time winning over the lawmakers this time around because politically popular programs would have to be cut to the bone. Many lawmakers talked in terms of paring defense outlays more than requested by the Administration and going easier on the domestic side.

In his speech, the Chief Executive also asked Congress to authorize interfund borrowing among the Social Security trust funds, a proposal that would allow the Medicare trust fund—in the black at the moment—to be tapped to help out the red-ink retirement funds. President Reagan described this "as a temporary measure to give us time to seek a permanent solution."

The larger issue of bailing out Social Security over the long haul would be placed before a bipartisan commission "which will review all the options and come up with a plan that assures the fiscal integrity of Social Security . . ."

Budget Director David Stockman said a weapon the Administration may be forced to use to achieve the cuts could be Presidental veto of appropriations bills that exceed Administration targets. He noted that a two-thirds vote is required to overturn a veto, implying that Congress would not be able to muster that margin on Presidental turn-downs.

Meanwhile, the government (as of October 1) is operating on a continuing resolution at the expenditure levels of the past fiscal year.

* * *

Senator Orrin Hatch (R., Ut.), Chairman of the Senate Labor and Human Resources Committee, is sponsoring legislation to modify the Delaney Clause that is an absolute prohibition on food additives found to cause cancer in man or animals. The clause has been attacked over the years as imposing too strict a ban on additives that have caused cancer only in test animals and in enormous doses. The new bill would apply only to substances that pose "a significant risk to health."

House hearings are also slated on proposals for "consumer choice" national health plans, though the Administration's bill isn't due until the end of the year.

Legislation has also been introduced to place a moratorium on Federal Trade Commission activities involving the learned professions, including medicine. There are 46 sponsors in the House.

In addition, major measures have been introduced to reform federal regulatory procedures to curb unnecessary regulations and give Congress the power to veto rules that overstep agency authority.

* * *

The Administration's health block grant program is slated to shortly wheel into operation, but some states may decide to delay for as long as a year.

At a series of regional conferences, Administration officials have been assuring state officials they will be allowed "maximum flexibility" in administering the programs covered under the block grants.

Edward Brandt, M.D., Assistant Secretary for Health at the HHS Department said his agency is "carrying out the principles of flexibility, minimum federal intrusiveness, and absolute neutrality in its implementation activities."

Dr. Brandt noted that states may choose to assume responsibility for administering the block grant programs October 1 or to phase in the operation of the blocks during the fiscal year starting October 1.

Congress put some 20 Public Health Service programs into four blocks grants—Preventive Health; Maternal and Child Health; Mental, Drug, and Alcohol; and Community Health Centers. States can administer the block grant funds with much more freedom than existed for the categorical programs.

Dr. Brandt told the Block Grant Regional Conference in Dallas this month that HHS is authorized to continue making awards to individual program grantees in states until the states assume control over the block grants. "But we will only take this action if an existing grant comes up for renewal before you (the states) take over the block containing that particular grant program."

The amount of money the states will receive for the block grants won't be known until Congress completes the appropriations process. Dr. Brandt said "the best I can tell you now is that we are going over prior year obligation figures for each program in the blocks to establish the basis for calculating your particular state's share of each block."

The law requires each state to tell how it intends to spend its block grant funds. Citizens are supposed to take part in the decision-making process at the state level, but "we will have no federal guidelines or proposed federal regulations concerning public participation."

Said Dr. Brandt: "The approach we have taken is designed to make sure that the states will truly retain their flexibility and responsibility for decision-making. We intend to regulate only in a few absolutely essential areas. But for most provisions of the block grant law, there will be no regulatory guidance. This is certainly the intent of the block grant legislation proposed by the President and enacted by the Congress."

* * *

The Senators heading the Republican and Democratic campaign committees have said the AMPAC (American Medical Political Action Committee) played an important role in the last elections. They urged an even greater role for AMPAC in the future.

Addressing AMPAC's political education conference in Washington, D.C., Senator Wendell Ford (D., Ky.) told 400 AMPAC members that "you people wrote the book on how to make a PAC work and without question your organization's record of success stands alone."

Describing AMPAC as "a force to be reckoned with," Senator Ford said in prepared remarks that PACS exert a positive influence on the political process. "Keep up the good work," he said, "and remember that the bottom line is a more responsive and responsible government."

"If ever there was a time for individuals and groups to come together to help minimize the impact of the budget reductions, that time is now," he said. "The need will

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Editorial

Juggling act on a tightrope: using psychotropics in the elderly

The burgeoning of the elderly population has been accompanied by an absolute increase in the number of depressed, agitated, and anxious individuals in our society.

To cope with the ever-increasing problem of affective disorders, drug companies have been successfully developing and marketing a wide array of psychotropic drugs, for example, tricyclic antidepressants, monoamine oxidase inhibitors, phenothiazines, and lithium carbonate.

Faced with a multitude of prescribing options, the average physician must be constantly wary of adverse drug reactions, drug interactions, and drug overdosage. The trial-and-error monitoring approach to psychotropic therapy allows tailoring of the drugs to fit the individual patient.

However, the use of these drugs in the elderly is fraught with pitfalls and caveats. For example, the tricyclic antidepressants have precipitated hypomanic states, delusions, hallucinations, confusional states, and nightmares in certain fractions of the geriatric patients receiving them. Phenothiazines also have caused psychotic symptoms and catatonic-like states. MAOI (monoamine oxidase inhibitors) have precipitated manic reactions, acute anxiety reactions, insomnia, and schizophrenia.

Apparently, the prescribed regimen for these psychotropics in the elderly must be initiated at very low dosage and increased thereafter in very small, gradual steps. The complicated mental aging process with its concomitant depressions, anxieties, and organic brain syndromes necessitate careful titration of doses in this age group if one wishes to avoid adverse effects. It requires a very delicate balancing act for the physician to walk this tightrope while juggling the pharmacokinetics of these drugs and the psychodynamics of the aging process.

To compound the difficulty even further, the following unique circumstances exist in the geriatric population:

(1) The elderly often are receiving a wide variety of other drugs on a daily basis for one or more chronic medical conditions. Some of these, such as propantheline, Pro-Banthine, which may cause mental confusion or psychotic behavior and reserpine which may cause severe depression.

(2) Some psychotropic drugs may present an organic risk to the elderly, such as imipramine, Tofranil, which may result in cardiac abnormalities.

(3) Interactions of psychotropics with various other drugs or foods may result in serious adverse reactions. For example, MAOIs can potentiate amphetamines, ephedrine, phenylephrine, and central nervous system depressants. In addition, the geriatric patient on MAOIs must avoid tyramine-rich foods such as raisins, yogurt, cheese, wine, chocolate, chicken livers, and pickled herring to prevent hypertensive reactions.

(4) The elderly are prone to skip doses, take excess doses, not recognize or ignore side effects, or neglect to report side effects to physicians. All these make monitoring and adjusting doses very difficult. A physician may not be able to stop a drug fast enough to avoid a full-blown psychotic episode.

(5) Organic brain syndrome behavior can simulate some of the psychotic behavior produced by psychotropic (or sometimes nonpsychotropic) drugs.

All this leads to the need for improvement in the state of medical knowledge pertaining to psychotropics in the elderly. The potpourri of fragmented facts and warnings available in the PDR (Physician's Desk Reference) and drug-insert literature is too much for the average physician to digest and utilize in practice.

It would be wise for the academic men and women in gerontology, pharmacology, and psychiatry to share and compare their special knowledge and experience with practitioners of geriatric care at state and national conferences or workshops. Once the magnitude and scope of this multifaceted problem are clearly delineated, they should collaborate to generate: Practical Guidelines for the Use of Psychotropics in the Elderly.

As a step in this direction, the Commission of Public Health of the MSSNY at its July meeting, agreed to address this entire issue during the coming year.

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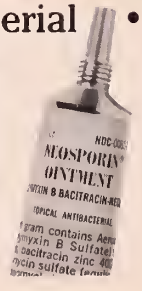

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Nonanemic Pernicious Anemia

Delay in diagnosis

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Three patients with macrocytosis and normal or slightly subnormal hemoglobin value were found to have pernicious anemia after a delay of 40 to 91 months. This delay occurred because macrocytosis was unnoticed until significant anemia developed. The fourth patient had macrocytosis with a normal hemoglobin. However, after vitamin B_{12} therapy, the hemoglobin rose to a higher normal value. These patients show that macrocytosis may precede anemia by several years in the development of pernicious anemia. Emphasis is placed on proper attention to the mean corpuscular volume so that pernicious anemia can be diagnosed and treated at an early stage, avoiding its complications.

Macrocytosis is the earliest change in the blood count in the development of megaloblastic anemia.[1] In the past, the presence of an increased number of hypersegmented neutrophils was considered to be the earliest such change. Megaloblastosis with a normal MCV (mean corpuscular volume) occurs in less than one in 200 patients with megaloblastic hematopoiesis.[1] Recent reports emphasize the importance of the study of patients with elevated mean corpuscular volume and mild anemia for possible pernicious anemia.[2,3] Carmel[2] reported 11 patients in whom mild anemia went unnoticed for from three months to six years before the diagnosis of pernicious anemia was made. *Nutritional Review*[3] also has reports of two patients with macrocytosis and mild anemia whose pernicious anemia was diagnosed after a delay of five to six years. We report four patients who had macrocytosis and normal or slightly subnormal hemoglobin for some time before the diagnosis of pernicious anemia was made. Three patients had become anemic at the time the diagnosis was made. In these 3 cases the diagnosis was delayed by 40 to 91 months. Delay in the diagnosis of pernicious anemia may permit irreversible neurologic changes to develop that can be prevented by the timely administration of vitamin B_{12}.

Case reports

Case 1. A 55-year-old white man with seronegative rheumatoid arthritis and anxiety neurosis was found to have macrocytic anemia in September, 1977. He complained of a burning feeling in the left foot since March, 1975, and numbness of both hands since May, 1976. He did not drink alcohol to excess and had quit smoking 13 years earlier. On examination he had diminished pinprick sensation up to the proximal interphalangeal joints on the dorsum of his hands and feet and to the metacarpophalangeal joints on the palms of both hands. Vibration sensation was diminished in both the upper and lower extremities. He had weakness of hand grip and of the biceps bilaterally.

A blood count in September, 1977, showed: hemoglobin 8.1 Gm. per deciliter; hematocrit 25.5; red cell count 2.02 million per cubic millimeter, white cell count 3,100 per cubic millimeter, platelets 183,000 per cubic millimeter; and MCV 125 μ^3. The reticulocyte count was 0.6 percent. Macrocytes and hypersegmented polymorphonuclear cells were seen on the peripheral smear. Serum vitamin B_{12} level was below 100 pg. per milliliter and folic acid level was 6.7 ng. per milliliter. Serum chemistries were normal. LDH (lactic dehydrogenase) was 2,925 microunits per milliliter and total bilirubin was 1.2 mg. per deciliter. Gastric parietal cells and antithyroid antibodies were absent. The bone marrow was megaloblastic. Part I Schilling test done with ^{57}cobalt vitamin B_{12} showed excretion of 2.7 percent of the oral dose in the first 24 hours, and with intrinsic factor it was corrected to 13.05 percent in the first 24 hours. Nerve conduction studies on the upper extremities were consistent with peripheral neuropathy. A diagnosis of pernicious anemia having been made, he was treated with vitamin B_{12} parenterally. After seven weeks of treatment his hemoglobin was 15.3 Gm. per deciliter; MCV 96 μ^3; red cell count 4.71 million per cubic millimeter, white blood cell count 5,700 per cubic millimeter, platelets 470,000 per cubic millimeter.

On review of old records it was found that he had a hemoglobin of 13.4 Gm. per deciliter and MCV of 111 μ^3 in

December, 1972. From 1972 to 1977 his hemoglobin had varied from 12.9 to 15.4 Gm. per deciliter and MCV from 100 to 119 μ^3. On several occasions macrocytes were seen on the peripheral smear.

Case 2. A 65-year-old white man was seen in September, 1980, complaining of fatigue, weight loss, and an occasional tendency to lean to his right side for the last six months. He had a history of pulmonary tuberculosis and had previously smoked one pack of cigarettes a day for 35 years and 5 cigars a day for 5 years. He drank two to three mixed alcoholic drinks a day.

On physical examination he had loss of touch sensation on the tips of all the toes and loss of vibratory sensation in the upper and lower extremities. Deep tendon reflexes were also diminished. The complete blood count showed: hemoglobin 10.9 Gm. per deciliter; hematocrit 31.1; red cell count 2.37 million per cubic millimeter, white cell count 6,400 per cubic millimeter, platelets 300,000 per cubic millimeter; and MCV 131 μ^3. The reticulocyte count was 0.3 percent. Macrocytic red cells and hypersegmented polymorphonuclear cells were seen on the peripheral smear. Serum electrolytes, proteins, creatinine, and BUN (blood urea nitrogen) values were normal. SGOT (serum glutamic oxaloacetic transaminase), SGPT (serum glutamic pyruvic transaminase), LDH, alkaline phosphatase, and bilirubin values were normal. Serum iron and iron-binding capacity were 307 and 318 micrograms per deciliter, respectively. T_4 and T_3U (thyroxine and triiodothyronine uptake) were normal. Serum vitamin B_{12} level was less than 100 pg. per milliliter and folate was 13.9 ng. per milliliter by radioimmunoassay. The Schilling test gave positive results. Part I of the Schilling test performed by oral administration of 0.8 μc of ^{58}cobalt vitamin B_{12} showed excretion of 3.3 percent of the oral dose in the first 24 hours. Part II of the Schilling test performed simultaneously by using 0.5 μc ^{57}cobalt vitamin B_{12} with intrinsic factor showed vitamin B_{12} excretion of 7.8 percent of the oral dose in the first 24 hours. Gastric analysis showed achlorhydria.

Review of his old records showed the patient's hematocrit was 41 in 1967; red cell count and MCV were not done. In February, 1973, and July, 1976, the hemoglobins were 13.4 and 13.6 Gm. per deciliter, MCVs were 119 and 115 μ^3, and the red cell counts were 3.43 and 3.79 million per cubic millimeter, respectively. Macrocytes were seen on the peripheral smear in 1973. In August, 1980, the hemoglobin decreased to 12.6 Gm. per deciliter and MCV increased to 129 μ^3. Finally, in September, 1980, the hemoglobin was 10.9 Gm. per deciliter and MCV 131 μ^3.

The patient was treated with vitamin B_{12} parenterally, and after three months of treatment his hemoglobin had increased to 15.1 Gm. per deciliter and MCV decreased to 97 μ^3. No change was noticed in the neurologic findings.

Case 3. A 65-year-old white man with a past history of treated pulmonary tuberculosis was found by his physician to have macrocytic anemia in March, 1980, on a routine follow-up visit. The patient was asymptomatic. His physical examination was unremarkable except for a smooth tongue.

The hemoglobin was 12.1 Gm. per deciliter; hematocrit 36.6; red cell count 2.95 million per cubic millimeter, white cell count 5,700 per cubic millimeter, and platelet count 201,000 per cubic millimeter; MCV was 123.6 μ^3. The reticulocyte count was 0.5 percent. The peripheral smear showed macrocytosis and hypersegmented polymorphonuclear cells. Serum creatinine and uric acid levels were 2.2 mg. and 10.6 mg. per deciliter, respectively. Serum vitamin B_{12} level was less than 100 pg. per milliliter and folic acid level was more than 20 ng. per milliliter. Serum gastrin level was more than 1,000 pg. per milliliter (normal 0 to 150 pg. per milliliter). Results of the Schilling test were positive. Part I of the Schilling test performed by oral administration of 0.8 μc of ^{58}cobalt vitamin B_{12} showed excretion of 0.55 percent of the oral dose in the first 24 hours. Part II of the Schilling test performed simultaneously by using 0.5 μc ^{57}cobalt vitamin B_{12} with intrinsic factor showed vitamin B_{12} excretion of 11.18 percent of the oral dose in the first 24 hours. He was treated with vitamin B_{12} parenterally. After five months of treatment the hemoglobin had increased to 17 Gm. per deciliter and the MCV had decreased to 84.9 μ^3. His records showed that in November, 1976, the patient's hemoglobin was 14.3 Gm. per deciliter with a MCV of 106 μ^3. The peripheral smear had shown anisocytosis at that time.

Case 4. A 70-year-old white man was found in July, 1979, to have macrocytosis on a complete blood count performed for arthritis of the right shoulder. The hemoglobin was 14.2 Gm. per deciliter; hematocrit 42.6; red cell count 3.44 million per cubic millimeter, white cell count 8,400 per cubic millimeter, and platelet count 412,000 per cubic millimeter; and MCV 123 μ^3. The reticulocyte count was 0.3 percent. Macrocytic red cells were seen on the peripheral blood smear.

He had smoked one pack of cigarettes a day for 50 years and drank alcohol socially. He denied any history of thyroid disease, liver disease, malabsorption syndrome, drug addiction, or neurologic disease. His physical examination showed the presence of bursitis and osteoarthritis of the right shoulder. T_4 and T_3U were 9.1 micrograms per deciliter and 29.4 percent, respectively. Values for the blood electrolytes, proteins, BUN, and creatinine were normal. SGOT, SGPT, LDH, and bilirubin were also normal. Cold agglutinins were absent. Serum vitamin B_{12} level was 147 pg. per milliliter (normal 200 to 900) and folate 10.5 per milliliter. On repeated examination the serum vitamin B_{12} level was 100 pg. per milliliter. Results of an upper gastrointestinal series and small bowel follow-through were unremarkable.

The Schilling test gave positive results. Part I of the Schilling test performed by oral administration of 0.8 μc of ^{58}cobalt vitamin B_{12} showed excretion of 5.2 percent of the oral dose in the first 24 hours. Part II of the Schilling test performed simultaneously by using 0.5 μc ^{57}cobalt vitamin B_{12} with intrinsic factor showed vitamin B_{12} excretion of 10.3 percent of the oral dose in the first 24 hours. The bone marrow was megaloblastic.

The patient was treated with vitamin B_{12} intramuscularly, and after six months of treatment his MCV stabilized at 96 μ^3 and his hemoglobin was 16 Gm. per deciliter.

Comment

The mean corpuscular volume is defined as the average volume of a single red cell measured in cubic microns. It can be calculated from the red cell count (number of red cells per cubic millimeter of blood) and the packed red cell volume (proportion of the blood occupied by red cells, expressed as volume). The mean corpuscular volume is calculated as follows:

$$\text{MCV } (\mu^3) = \frac{\text{Volume of the packed red cells per 1,000 ml. blood}}{\text{Red cell count, millions per cubic millimeter}}$$

The normal value of mean corpuscular volume as given by automated cell counter (Coulter Counter Model S) is 90.1 μ^3 (80.5 to 99.7) for normal adult men and 90.4 μ^3 (80.8 to 100) for normal adult women. Modern automated instruments, however, measure MCV directly and calculate the hematocrit (volume of the packed red cell per 100 ml. blood, expressed as percent) from the MCV and red cell count.

Physicians have been using automated cell counters for over ten years and still the medical profession has not fully realized the importance of a high mean corpuscular volume with or without anemia. Macrocytosis is the earliest change in the development of megaloblastic anemia. The proper study of an isolated high mean corpuscular volume especially to rule out pernicious anemia can avoid the preventable and potentially catastrophic neurologic complications of that disorder.

In Carmel's[2] series, the frequency of delayed diagnosis of pernicious anemia was about 10 percent and he speculated that probably it really was higher than that. Ten of his 11 patients had subnormal hemoglobins for 3 months to 6 years before pernicious anemia was diagnosed. Four patients had normal hemoglobins and high MCVs for about two to five years before the diagnosis of megaloblastic anemia was established. Six patients had mild anemia and a high mean corpuscular volume for several months to several years before pernicious anemia was diagnosed. The first patient in Carmel's series is interesting because six years before final diagnosis, macrocytes were seen on a peripheral smear although the mean corpuscular volume was normal. Should the presence of macrocytes on a peripheral smear with a normal MCV make one suspicious of the possibility of oncoming megaloblastic anemia? Six patients did develop neurologic complications varying from loss of vibratory sensation and neuropathy to severe neurologic impairment in both legs.

Two more patients were reported in *Nutritional Review*[3] in whom the diagnosis of pernicious anemia was delayed by five to six years. One of these patients developed ataxia, weakness, and unsteadiness in gait that probably could have been prevented by early diagnosis and treatment.

Hall[4] recently reported 6 patients in whom macrocytosis was recorded 3 to 31 months before pernicious anemia was diagnosed. These patients had normal or mildly subnormal hemoglobins at the time of first recording of a high MCV which had gone unnoticed. Many of these patients developed neurologic signs and symptoms including weakness, difficulty in walking, paresthesias of the legs, peripheral neuropathy, confusion, defects of cerebration, impairment of concentration, and combined-system disease. After treatment, many of these symptoms subsided. In the first and sixth patients, the delay in diagnosis was also due to a falsely normal level of vitamin B_{12} given by the isotope dilution assay method.

Two of our patients developed mild peripheral neuropathy which was not reversed on treatment with vitamin B_{12} even though the anemia had fully remitted. Our first patient developed numbness of both hands in May, 1976, and at that time his hemoglobin was 14.8 Gm. per deciliter and MCV 114 μ^3. Macrocytes were seen on his peripheral smear. Probably due to lack of anemia and lack of recognition of the importance of a high MCV, the diagnosis of pernicious anemia was not entertained in this patient. By the time the diagnosis of pernicious anemia was established, after a delay of 57 months, this patient had developed more neurologic changes.

Our second patient also had developed signs of peripheral neuropathy that did not improve in the three months after treatment was started with vitamin B_{12}. Pernicious anemia was diagnosed after a delay of 91 months in this patient. The third patient was asymptomatic and the diagnosis in this case was delayed by 40 months. The fourth patient had only macrocytosis with a normal hemoglobin, which was recognized by his physician, and the patient was referred to us for study. Investigation indicated this patient had pernicious anemia and he was given parenteral vitamin B_{12}: this was followed by a slight rise in hemoglobin and normalization of his MCV. Since we had no previous blood counts, it is impossible to say how long he had this macrocytosis. Luckily, none of our patients developed disabling neurologic complications.

Hattersley[5] also reported a 60-year-old man with peripheral neuropathy and a hemoglobin and MCV of 15.1 Gm. per deciliter and 110 μ^3, respectively, who was diagnosed as having pernicious anemia. After treatment with vitamin B_{12} parenterally, his hemoglobin increased to 15.6 Gm. per deciliter and MCV decreased to 94 μ^3. The patient showed clinical improvement with treatment.

It is important to understand and recognize that pernicious anemia can show initially with only macrocytosis with a normal hemoglobin before the development of pancytopenia, high lactic dehydrogenase, hyperbilirubinemia, smooth red painful tongue, peripheral neuropathy, signs of subacute combined degeneration of spinal cord, and so forth. Retrospectively, three of our patients had an elevated MCV with normal or mildly subnormal hemoglobins for several years before significant anemia developed which required study. During all this time macrocytosis was overlooked by the physicians as a significant abnormality. Our third and fourth patients had normal hemoglobins initially but as compared with posttreatment hemoglobins, these were subnormal for these two patients. None of these four patients had hyperbilirubinemia or high lactic dehydrogenase during the period of isolated macrocytosis.

Our patients clearly show that macrocytosis may precede the development of significant anemia by several years in the development of pernicious anemia, and that macrocytosis may be the earliest manifestation of pernicious anemia. With the introduction of automated cell counters and similar instruments, and by paying proper attention to complete blood count reports, pernicious anemia can usually be diagnosed at a very early stage, before the earliest signs, symptoms, and biochemical changes develop.

Vitamin B_{12} or folate deficiency is not the only cause of macrocytosis. Macrocytosis has been reported in chronic alcoholism,[6–9] malignant conditions,[6,7,9,10] liver disease,[6,7,9,11] leukemia,[6,7] after drug therapy,[6,9,12,13] hypothyroidism,[10,14] sideroblastic anemia,[6,10,11] aplastic anemia,[10] refractory anemia,[7] with reticulocytosis,[11] chronic obstructive pulmonary disease,[15] cold agglutinin disease,[16] with old age,[17,18] smoking,[18] and is also familial.[19] Most of these were excluded as a cause in our patients by history, physical examination, and laboratory tests.

Conclusion

Crosby,[20] in his editorial on Carmel's paper, said, "The moral of the story is that improved technology provides us with elegant hematologic data that many physicians have not yet learned to appreciate or use." He further said, "since you get the Coulter counts now-a-days whether you like it or not, look first at the MCV."

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Immune Thrombocytopenic Purpura

Need for an individualized approach

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A retrospective study of patients with ITP (immune thrombocytopenic purpura) treated in a community hospital during 1974 to 1980 is presented. Eighty percent of patients, or 16 of 20, less than 55 years of age required splenectomy, compared with only 25 percent, or 2 of 8, of those older than 55. No differences in the duration of symptoms, platelet count, or severity of illness was noted between the two groups. Three of four younger patients who did not require splenectomy were diagnosed during pregnancy or at the time of delivery. A conservative approach may therefore be indicated in certain selected subgroups of patients with ITP.

In recent years the management of ITP (immune thrombocytopenic purpura) has become fairly well standardized. Except in children, in whom the disease is usually related to an acute viral illness and is self-limited, splenectomy is the mainstay of treatment and results in a 70 to 80 percent rate of sustained complete remissions.[1–5] Corticosteroids are generally given prior to splenectomy and often result in an increased platelet count, which usually drops again when the steroid dose is reduced. Nevertheless, an occasional patient undergoes a lasting remission coincident with steroid treatment so that splenectomy can be avoided.

We recently treated two elderly patients with ITP who had an excellent response to corticosteroids without the need for splenectomy. Since there is little information in the literature on the influence of age on the course of ITP in adults, we reviewed our experience over the past six years with this disease. From this relatively small patient group, we have made several interesting observations regarding this disease in our practice.

Materials and methods

Selection of cases. All patients seen in the Hematology Unit at Highland Hospital from 1974 to 1980 with the diagnosis of ITP were considered for this study. Criteria for selection were:

1. Initial platelet count less than 75,000 per cubic millimeter. Since patients with ITP and platelet counts over 75,000 probably would not be treated, they were excluded from the study.
2. Bone marrow aspirate showing normal or increased numbers of megakaryocytes.
3. Absence of clinical or laboratory evidence of illnesses that are recognized causes of thrombocytopenia.
4. Absence of exposure to drugs or toxins known to produce thrombocytopenia.

Method of treatment. All patients were treated initially with prednisone 60 mg. daily. High doses were maintained for 1 to 4 weeks, depending on the rapidity of rise of the platelet count. The dose of prednisone was then tapered over the next several weeks. Splenectomy was performed when response to steroids was suboptimal, or when it was apparent that high doses of steroids (over 20 mg. daily) would be necessary to maintain the platelet count over 75,000.

A single patient was initially treated by plasmapheresis according to an experimental protocol and subsequently received steroids and underwent splenectomy.

Assessment of results. Response to corticosteroids or splenectomy was categorized as follows:

1. "Complete response" is defined as a normal platelet count (greater than 150,000 per cubic millimeter) one month or more following splenectomy or following complete discontinuance of corticosteroids.
2. "Partial response" is defined as a platelet count of 75,000 to 150,000 per cubic millimeter after splenectomy or requiring less than 20 mg. of prednisone daily to maintain a platelet count greater than 75,000.
3. "No response" included patients not satisfying these criteria.

Results

The 28 patients ranged in age from 11 to 81 years at the time of initial diagnosis (Tables I and II).

TABLE I. Patients requiring splenectomy

Patient Number	Age	Sex	Initial Platelet Count	Bleeding History	Duration Steroids	Length of Follow-up	Status
1	21	F	14,000	>1 year	7 weeks	5 years	CR[*] after relapse
2	36	M	14,000	1 week	1 week	4½ years	CR after relapse
3	33	F	39,000	None	3 weeks	16 months	Relapse after CR
4	40	F	12,000	3 weeks	4 weeks	1 year	CR after relapse
5	28	F	18,000	3 months	4 weeks	2½ years	CR
6	38	F	11,000	1 month	4 weeks	3 years	CR
7	21	M	10,000	6 weeks	5 weeks	3 years	CR
8	21	F	10,000	2 months	4 weeks	2 year	CR
9	53	F	42,000	1 month	3 months	4 years	CR
10	51	F	50,000	2–3 months	2 months	2½ years	CR
11	54	F	19,000	2 months	3 weeks	1 year	CR (lost to follow-up)
12	15	F	13,000	1 day	2 months	3 years	CR
13	11	F	11,000	3 months	4 months	4 years	PR[*]
14	37	F	15,000	None	4 weeks	1 year	CR
15[†]	25	F	37,000	None	3 months	1 year	CR after relapse
16	25	M	10,000	2 days	4 weeks	1 year	CR
17	59	F	31,000	4–5 months	...	3½ years	CR
18	70	F	20,000	None	2 months	4 months	CR

[*] Abbreviations: CR = complete response; PR = partial response.

[†] Patient diagnosed during pregnancy.

TABLE II. Patients not requiring splenectomy

Patient Number	Age	Sex	Initial Platelet Count	Bleeding History	Response to Steroids	Length of Follow-up	Status
19[*]	21	F	16,000	1 day	10 days	3 years	CR[†] after relapse
20[*]	27	F	43,000	None	Spontaneous	3 years	CR
21[*]	36	F	40,000	None	Spontaneous	2 years	CR
22	18	F	5,000	1 day	1 week	1 year	CR
23	81	M	10,000	3 days	10 days	2½ years	CR
24	64	F	49,000	>1 year	?	3 years	No platelet count (Clinically well)
25	58	F	10,000	3 weeks	10 days	3 years	CR after relapse
26	70	M	10,000	3–4 days	3½ weeks	30 months	PR[†]
27	81	M	14,000	3 weeks	12 days	2½ years	CR
28	72	F	50,000	None	None	2 years	NR[†]

[*] Patients diagnosed during pregnancy.

[†] Abbreviations: CR = complete response; PR = partial response; NR = no response.

Twenty-two of 28 patients, or 79 percent, were female and 20 of 28, or 71 percent, were under 55 years old. The overall mean platelet count was 21,875 per cubic millimeter and was not different for the patients under age 55 (20,675) or over 55 (24,275). No difference was found in the duration or severity of bleeding manifestations between the two age groups when first seen.

Striking differences were noted, however, in the response to treatment and subsequent clinical course between the older and younger patients. Of the 20 patients under 55, all but 4 had suboptimal responses to steroids and subsequently underwent splenectomy. It is interesting to note that three of these four patients were diagnosed either during pregnancy or at the time of delivery. Two patients recovered spontaneously after delivery and have required no therapy as of this report 24 and 34 months following diagnosis. One patient has responded to corticosteroids twice following pregnancies complicated by thrombocytopenia. A fourth patient diagnosed during pregnancy responded initially to steroids, but required splenectomy several months after delivery because of relapse.

The clinical course of the older patients was much different. Only 2 of 8 patients over age 55 have required splenectomy. Of these two, one patient was a 59-year-old female with hypertension for whom corticosteroids were contraindicated and splenectomy was the primary treatment. The other was a woman with metastatic breast cancer (not involving the bone marrow) who was dependent on high doses of corticosteroids and responded dramatically to splenectomy. Of the remaining 6 patients, 4 remain in complete remission 30 to 42 months after withdrawal of prednisone. One patient is in good partial remission off corticosteroids and 1 patient (also with metastatic breast cancer) is asymptomatic despite a platelet count of 35,000. One patient had an exacerbation of diabetes mellitus related to prednisone but no other significant steroid-related morbidity was noted.

The overall response to splenectomy was quite good and comparable with results previously reported. Eleven of 16 patients remain in complete remission two months to five years after splenectomy. Three other patients relapsed after splenectomy but achieved a second complete remission after treatment with corticosteroids and/or other immunosuppressive drugs that were later discontinued. One patient continues to be mildly thrombocytopenic five years after splenectomy with platelet counts of 70,000 to 110,000 per cubic millimeter, but has required no further treatment. One patient relapsed six months after splenectomy and did not respond to plasma exchange therapy. One patient was lost to follow-up after achieving a complete response with splenectomy. One patient has undergone splenectomy recently, and it is too early to assess for response.

Case reports

Two patients are described to illustrate the importance of individualizing treatment in elderly patients with ITP.

Case 1. A 70-year-old white male (patient 26 in our series) was admitted to Highland Hospital after four days of diffuse petechiae, hematuria, and melena. He had severe peripheral vascular disease and had undergone bilateral above-knee amputation one month previously with no complications. There was no history of alcohol or drug ingestion or previous bleeding problems. On physical examination there were widespread petechiae and ecchymoses, but no other abnormalities except for bilateral above-knee amputations. The platelet count was less than 12,000 per cubic millimeter. Hematocrit, white blood cell count and differential, prothrombin time, and partial thromboplastin time were normal. A bone marrow aspirate showed plentiful megakaryocytes. Prednisone 60 mg. daily was given and the hemorrhagic diathesis stopped within 48 hours, although the platelet count remained at 12,000 per cubic millimeter for three weeks. It then quickly rose to 150,000 and the prednisone was reduced rapidly to 20 mg. daily and then gradually tapered off over the next several months. Two years after the diagnosis was made he is off corticosteroid therapy and maintains a platelet count of approximately 100,000 per cubic millimeter.

Comment. Because of this patient's age and severe vascular disease the duration of steroid therapy was extended in an attempt to avoid splenectomy. This may have been unnecessary but steroid-related side effects are uncommon at doses of prednisone less than 15 to 20 mg. daily. Interestingly, steroids clearly ameliorate the bleeding tendency long before the platelet count was affected, confirming previous impressions on the ability of these drugs to improve capillary integrity and/or platelet function.

Case 2. A 58-year-old white female (patient 25 in our series) gave a three-week history of easy bruising. She had maturity onset diabetes and had been taking furosemide and chlorpropamide for many years. Physical examination revealed numerous petechiae and ecchymoses over the skin and mucous membranes. The platelet count was less than 10,000 per cubic millimeter and rare large platelets were seen on peripheral blood smear. The bone marrow showed numerous megakaryocytes. All previous medications were discontinued and prednisone 60 mg. daily was started as well as insulin injections to control her diabetes. The patient's platelets rapidly rose to 700,000 within two weeks, and the steroids were rapidly tapered off and stopped. Three months later florid purpura recurred with a platelet count of 10,000. She had not taken any medications except insulin during this time. Prednisone was reinstituted at 60 mg. daily, and the platelet count returned to normal within one week. The prednisone was then reduced rapidly to 20 mg. daily and then further reduced gradually over three months and finally discontinued. She remains in complete remission when last seen 30 months later.

Comment. This woman was originally thought to have drug-induced thrombocytopenia and steroids were not considered contributory to her initial response. It is debatable whether or not the reduction of the dosage of prednisone led to the early relapse of her immune thrombocytopenia. The more prolonged second course of steroids was carried out safely with careful attention to insulin requirements. Although steroid therapy aggravated her diabetes, splenectomy ws avoided in this obese, poor-risk woman. Further follow-up is obviously needed to determine the permanency of the current remission.

Comment

The present retrospective analysis of patients with ITP was prompted by a favorable outcome in several elderly patients who were treated without splenectomy. Our results are somewhat surprising and suggest that ITP in the elderly may be more responsive to medical treatment than in the younger adult. There was an apparent difference in the need for splenectomy among patients over age 55 compared with younger patients (2 out of 8 versus 16 of 20). Although age itself may influence the decision of when to perform splenectomy, as we shall discuss, this cannot entirely explain our results. Three of our elderly patients (23, 25, 27), had prompt and complete responses to steroids and remained in remission from 12 to 36 months after stopping prednisone. Only 2 of 20 younger patients have had lasting responses to steroid therapy (there were 2 spontaneous remissions).

Age difference and ITP. It is well documented that immune thrombocytopenia behaves differently in children and adults.[6,7] However, most reports of ITP in adults do not stratify their results according to age. Also, ITP is relatively uncommon in elderly patients. Myers[8] found 2 sustained remissions with steroids in 10 patients over age 60; this was similar to her experience in younger patients. However, steroids were given for only 10 to 21 days with rapid tapering off within 4 to 6 days. With this regimen our patient 26 would have been a "steroid failure" and subjected to splenectomy. It is also possible that more prolonged steroid treatment would have avoided splenectomy in some younger patients as well.

There are several reasons for evaluating elderly patients with ITP somewhat differently from younger patients. Surgery carries increased risk in older people with cardiopulmonary and other chronic diseases. Although many series show no difference in the response rate to splenectomy according to age,[9] there is some data to suggest a poorer response in the older age group.[10] Indeed, Najean et al.[11] have shown that patients over 50 often have a predominately hepatic pattern of platelet sequestration in contrast to the mainly splenic pattern of younger patients. Although sequestration studies cannot always predict response to splenectomy, these data suggest that splenectomy be performed judiciously in older patients.

Limits of study. The observations we have described must be interpreted within the limits of a small retrospective study. Although the total number of patients is not large it does represent an unselected, consecutive series of adult patients with ITP seen at a community hospital over a six-year period of time. Since this study is retrospective, differences in response to treatment may have been due to differences in the treatment itself. The trial of corticosteroid treatment was similar in all patients, consisting of 60 mg. of prednisone for a minimum of three weeks prior to splenectomy (patients 9, 10, 12, and 13). In general, the decision for splenectomy is now made within three to four weeks and often sooner. Nevertheless, splenectomy is sometimes performed more readily in a young, healthy person than in an elderly patient with heart disease, given identical hematologic pictures. Thus, patient 26 was given a longer trial of steroids than is usual resulting in a delayed but excellent response and avoidance of splenectomy.

The differences in our patients' clinical response do not appear related to a more "chronic" form of ITP in the older age group. In fact the three most dramatic and durable responses to corticosteroids occurred in elderly patients who were first seen with a rapid onset of florid purpura and platelet counts of less than 12,000. Overall the duration of symptoms and mean platelet count did not differ in the two age groups. ITP is a chronic disease with the possibility of relapse years after apparently successful treatment. Follow-up of some of our patients is relatively short so that relapses may still occur. In addition, spontaneous remissions occur in ITP and can be mistakenly attributed to various treatment modalities given during this time. It would therefore be premature to draw firm conclusions from our data about age-related response rates to medical management in ITP.

Pregnancy and ITP. An unexpected and interesting finding was the association of pregnancy with apparent exacerbation of ITP. Four of our patients (15, 19, 20, 21) were diagnosed during pregnancy, three at the time of delivery. One patient had a spontaneous remission of her disease after delivery in 1977, a relapse during late pregnancy in 1979, and another spontaneous remission after the birth of her second child. Another patient received steroids following her first delivery and was well until ITP recurred during her next pregnancy three years later. Steroids were ineffective until delivery by cesarian section after which a prompt remission ensued. A third patient had spontaneous remission after delivery. In none of these cases was there evidence of preeclampsia or other conditions that might have contributed to the thrombocytopenia. It is now generally accepted that pregnancy does not affect the course of ITP and that the apparent association with pregnancy reflects the relatively high incidence of ITP in young females.[12] Nevertheless, it is interesting to speculate on the possible beneficial effect of terminating pregnancy in these patients.

Our data confirm the overall usefulness of splenectomy which remains the mainstay of treatment in most cases of adult ITP. Fourteen of 16 evaluable patients with adequate follow-up, or 88 percent, are now in complete remission after splenectomy although 3 of these patients required some immunosuppressive therapy following relapse. This is compatible with previous studies showing a 75 to 85 percent rate of lasting remissions after splenectomy.[4,5,8,9,13]

In the past decade, the role of antiplatelet antibody in the etiology of ITP has been clarified.[14–16] By removing the prime site of destruction of immunologically damaged platelets, splenectomy controls the disease and is eventually required in most adult patients.[16,17] It should not be forgotten, however, that some patients treated with steroids alone will undergo lasting remission. In older patients without contraindications to steroid therapy somewhat more prolonged therapeutic trials of one to two months with gradual tapering off the steroids may be indicated to avoid splenectomy in selected patients.

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"Chemical child abuse" cases described in pediatrics

Cases of "chemical child abuse" in which children are deliberately given drug overdoses by their parents are reported in the July issue of *Pediatrics*, the official journal of the American Academy of Pediatrics.

Cases of chemically abused children are described as "well planned and manipulative" acts, happening to children as young as one-half-month old.

The *Pediatrics* article was written by a team of four physicians, headed by Y. Shnaps, M.D., of the Tel Aviv University School of Medicine in Tel Hashoner, Israel, and reviews 16 cases of chemical child abuse from throughout the world.

As in child battering, the physicians report that a case of chemical abuse often is misdiagnosed initially because the parent gives a deliberately misleading medical history. The parent often is pleasant and cooperative, encouraging the medical team to further effort in diagnosing and treating the child—even while continuing to poison the offspring in the hospital. In fact, say the researchers, the abusing parent—who in all reported cases is the mother—may be motivated to poison her child in order "to enter a sheltered environment such as a children's ward and thus to be surrounded by a friendly staff." This enables parents to escape their own physical or psychological illness, or to run from marital or social problems.

The chief difference between physical and chemical abuse of children, say the physicians, is that battering usually occurs when the parent is in a fit of anger provoked by a child's irritating behavior. In contrast, chemical abuse is planned in advance. The reported poisonings lasted between 1½ to 48 months. The average age of a chemically abused child was just under three years.

Eleven of the 16 poisoning mothers were described as mentally disturbed, although in only one case was the mother's psychiatric diagnosis known to the medical staff during the child's evaluation. In the reported cases, the mothers gave their children a wide variety of drugs: diuretics, hypnotics, anti-anxiety and antipsychotic drugs, anticoagulants and in two cases, ordinary table salt.

Chemically abused children usually first come under medical care when there is a change in the child's level of consciousness, signs of which can be long sleeping spells, confusion, or coma. Just as a rule of thumb dictates that battered child syndrome should be suspected in cases of injuries other than those resulting from road accidents in children under two years of age, so should cases in which a child's consciousness is impaired be suspected as resulting from chemical abuse. In these cases, they add, health care workers should direct efforts to excluding the possibility of chemical abuse. These efforts should include obtaining full medical histories for both the child and family, recording parents' visits and their relation to the child's disease, and collecting urine and blood samples for analysis.

The physicians add that these efforts undoubtedly will increase the number of children who are identified as chemically abused—and also increase the number of children who receive treatment.

The American Academy of Pediatrics is an organization of more than 23,000 board-certified pediatricians dedicated to the health, safety and well-being of infants, children, and adolescents in North and South America. Recommendations or opinions expressed in *Pediatrics* articles should not be confused with official Academy policy or statements.

Scleroderma and Esophageal Carcinoma

Chromosomal abnormalities in a patient

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An association between certain collagen-vascular diseases and internal malignant growths is now recognized. Dermatomyositis and Sjögren's syndrome are best known for this relationship.[1,2] The possible association between PSS (progressive systemic sclerosis) and neoplasia remains controversial. It has been suggested that 4 percent of persons with PSS develop cancer.[3] It is still not known if this represents an increased frequency of cancer in patients with PSS compared to the general population.

Among those persons with PSS who develop cancer, breast carcinoma is the most common,[3,4] followed by lymphomas and cancer of the gastrointestinal tract, cervix uteri, and lung, in decreasing order.

Scleroderma has recently been recognized as a chromosomal breakage syndrome as are, for example, ataxia-telangiectasia and Bloom's syndrome.[5] These syndromes are associated with neoplasia.[6] To the present time, there have been six case reports of patients with PSS developing esophageal carcinoma.[7-12] We present a seventh and suggest a causal relationship between the chromosomal breaks found in somatic cells and the neoplastic transformation.

Case report

A 58-year-old black male with a history of chronic alcohol abuse and heavy smoking was also known to have had exposure to fertilizers and talc, but he was generally well until early 1979, when he appeared at Middlesex General Hospital emergency room with a chief complaint of increasing shortness of breath of two years' duration. Physical examination demonstrated sclerodactyly, tight skin over the dorsum of both hands, and facial telangiectasias. Diffuse inspiratory and expiratory dry crackles were demonstrated on auscultation of the chest. Chest x-ray film demonstrated bilateral interstitial infiltrates, and a right paratracheal density proved to be a right-sided aortic arch on aortography. An esophagram revealed extrinsic pressure of the right side of the esophagus, which displaced it posteriorly. No intrinsic esophageal disease was noted (Fig. 1A). The findings were consistent with the abnormal location of the aortic arch, as well as with a probable aberrant left subclavian artery.

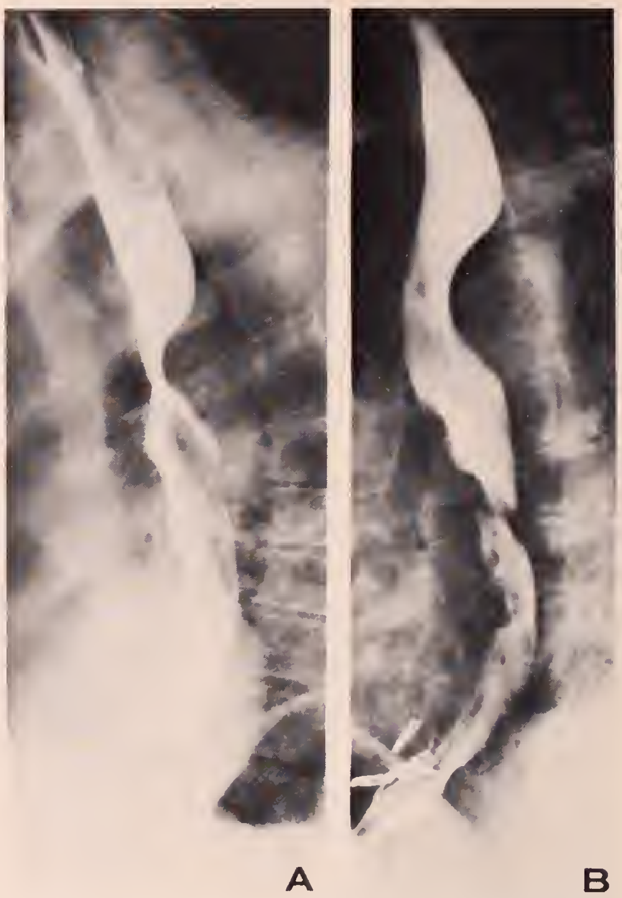

FIGURE 1. (A) Esophagram in early 1979 reveals no apparent mucosal disease. (B) Esophagram in October, 1979, reveals mucosal mass with central ulceration.

Evaluation of his pulmonary disease included pulmonary function studies. These showed moderately severe restrictive lung disease and a severely reduced diffusing capacity. An open lung biopsy demonstrated diffuse interstitial fibrosis without an evident cause.

The diagnosis of scleroderma was entertained, but skin biopsy was not obtained at the time. The patient was discharged on prednisone, 60 mg. per day, with a diagnosis of idiopathic pulmonary interstitial fibrosis.

In the summer of 1979, the patient stopped prednisone on his own. Shortly thereafter, he developed dysphagia which was particularly severe on ingestion of solid foods.

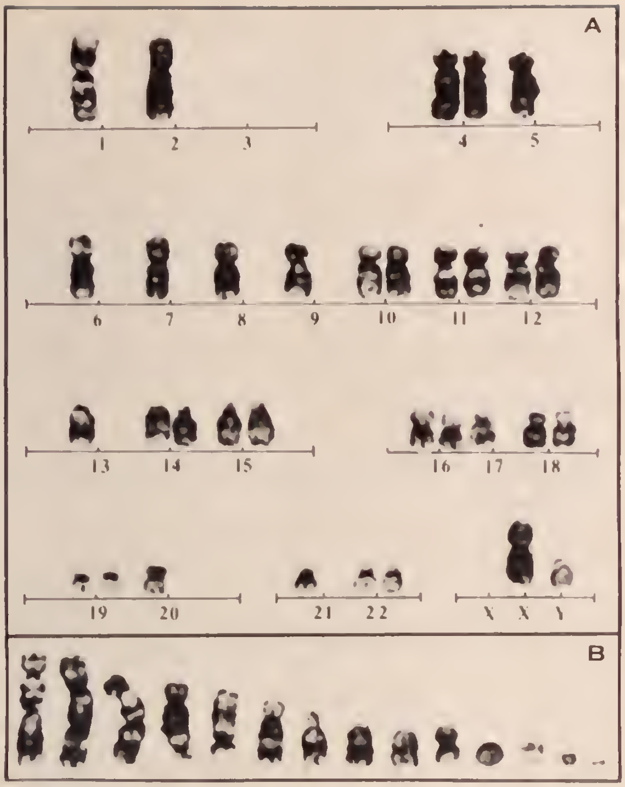

FIGURE 2. Example of the chromosome rearrangements and fragments observed in one of patient's aneuploid cells. (A) Karyotype of identified chromosomes. (B) Translocated chromosomes and fragments.

A 58-year-old black male developed squamous cell carcinoma of the esophagus 14 months after the clinical onset of PSS (progressive systemic sclerosis) and three months after the pathologic diagnosis of PSS. Chromosomal breaks were found in all somatic cells sampled, and a possible linkage between this patient's PSS and cancer is considered.

In October, 1979, the patient was readmitted to the hospital for increasing shortness of breath, weight loss, and dysphagia. Physical examination was unchanged from 1978, with the exception of moderate weight loss. Stool was positive for occult blood. Upper gastrointestinal series showed a 7- to 8-cm. circumferential esophageal mass with central ulceration at the junction of the second and third portions of the esophagus (Fig. 1B). Endoscopy confirmed the presence of an esophageal squamous carcinoma extending 28 to 35 cm. from the incisors. A thoracic CAT (computer-assisted tomography) scan did not indicate mediastinal disease, and results of both mediastinoscopy and bronchoscopy were normal. The patient underwent a thoracotomy for a possible curative resection. However, tumor was found adherent to the aorta, and no resection was performed. Skin biopsy of the hand in an area involved with sclerodactyly demonstrated changes consistent with scleroderma. Manometric studies of the distal esophagus showed abnormalities and typical features of scleroderma. Chromosomal analysis was performed (see Methods). The patient was started on radiotherapy.

Methods and results

Both PHA (phytohemagglutinin)-stimulated and nonmitogenic-stimulated cultures were initiated according to standard techniques.[13] No analyzable metaphase cells were studied from the nonstimulated cultures. From PHA cultures, 25 cells were examined of which 10 showed the normal 46-chromosome count. Fifteen cells had abnormal numbers of chromosomes: 12 cells showed a complement of 45 chromosomes, 2 cells contained 44 chromosomes, and one cell showed 47. Further chromosomal analysis revealed a remarkable number[14] of chromosomal rearrangements, fragments, and breakages (Fig. 2). No specific pattern could be determined in this analysis, and there were no consistent marker chromosomes (Fig. 2B).

Comment

The first documented case of esophageal carcinoma associated with scleroderma was reported in 1963.[7] Since then, there have been five additional reports of such a relationship.[8–12] In all instances, the neoplasms were of squamous histology. The cases are summarized in Table I.

In a study from the Mayo Clinic, in 85 percent of

TABLE I. Clinical composite of seven cases of scleroderma with esophageal carcinoma (squamous)

Case	Observers, Reference, Date	Age	Sex	Race	Duration of Dx PSS	Duration Dysphagia when Ca Dx	Site of Esophageal Ca	Esophageal Involvement with PSS: Motility	Esophageal Involvement with PSS: Ba Swallow	Survival after Dx Ca (mos)
1	Matzner, Trachtman, and Mandelbaum,[7] 1963	54	F	W	11 years	2 months	distal	NR	positive	9
2	Kilton and Gottlieb,[8] 1971	44	F	B	1 year	10 months	mid	NR	NR	NR
3	Johnson and Monroe,[9] 1973	60	F	W	11 years	25 years	mid	NR	positive	10
4	Whitaker and Bishop,[10] 1979	48	M	B	7 years	2 years	distal	positive	positive	5
5	Talbott and Hoch-Ligeti,[11] 1979	69	M	W	4 months	2 years	distal	NR	NR	3
6	Mattingly and Mowat,[12] 1979	70	F	NR	2 years	NR	mid	NR	positive	3
7	Present case, 1980	58	M	B	14 months	3 months	mid	positive	positive	8

Abbreviations: W = White; B = Black; NR = not reported; Dx = diagnosis; Ca = cancer; Ba Swallow = barium swallow.

patients with both PSS and nonesophageal cancer, the cancer developed first.[4] In contrast, in all seven patients with PSS and esophageal cancer, the PSS developed first. The interval between these varied between four months and 11 years (Table I). This sequence may suggest a causal relationship between the two diseases.

It is known that a majority of patients with PSS exhibit esophageal dysfunction when studied by cineradiographic techniques or by esophageal manometry.[15] However, these abnormalities often may be clinically silent. Among these are included aperistalsis in the body of the esophagus and incompetence of the lower esophageal sphincter. These problems may result in gastroesophageal reflux, esophagitis, and stricture formation. Obstruction and/or stasis caused by achalasia and lye-induced strictures may predispose to neoplasia.[16–18] This may be related to chronic inflammation and scarring, or to the inability to clear locally concentrated carcinogens from food. PSS could predispose to cancer of the esophagus in a similar manner.

In all but one case of esophageal carcinoma occurring with PSS, including the present one, dysphagia was a major complaint. However, motility studies with barium esophagrams usually were not done. In our patient, both manometry and barium swallow were performed. Barium swallow demonstrated a 7-cm. circumferential lesion in the mid and distal esophagus, and manometry revealed altered motility typical of that seen in PSS (Fig. 1B).

Scleroderma is now recognized as a chromosomal breakage syndrome.[5] Among these "clastogenic" syndromes are included Bloom's syndrome, ataxia-telangiectasia, xeroderma pigmentosum, and Fanconi's anemia. These entities, in contrast to scleroderma, are inherited in a mendelian fashion, and some of these are now known to be associated with increased risks for both lymphoreticular and gastrointestinal malignant growths.[6] The exact linkage betwen the chromosomal breaks, immunodeficiency, and neoplasms that occur in these syndromes is not known. However, the frequency of these striking relationships serve to support the concern that scleroderma may also predispose to certain neoplasms even though such a relationship has not been established to date. Chromosomal studies done on our patient showed numerous chromosomal breaks and translocations. These aberrations probably were due to scleroderma.

The clinical features of progressive diffuse interstitial fibrosis, typical esophageal dysmotility, sclerodactyly, compatible skin biopsy, and chromosomal breakage all support a diagnosis of PSS. Our patient subsequently developed esophageal carcinoma 14 months after the initial appearance of PSS. While this represents the seventh such example of the relationship of squamous esophageal carcinoma with scleroderma, one might expect it more commonly. Perhaps the generally poor prognosis and limited survival of patients with PSS and renal or pulmonary involvement restrict the expression of this association.[19,20]

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Use of Lisuride in Advanced Parkinson's Disease*

Potent dopamine and serotonin agonist

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Lisuride hydrogen maleate, a semisynthetic ergoline and potent central nervous system dopamine and serotonin agonist, was used alone in 10 patients with moderately advanced PD (Parkinson's disease) or combined with levodopa in 20 patients with more advanced PD whose response to levodopa had diminished. The second group of 20 patients included 14 with diurnal oscillations in performance ("wearing off" and/or "on-off" phenomena). For all 30 patients there was a significant decrease in disability as assessed in both the "on" and, where applicable, the "off" period. Disability as assessed in the "on" period decreased by 31 percent from 42 to 4.0 SEM (standard equivalent of the mean) to 29 ± 3.7. This is significant at 1 percent. Disability as assessed in the "off" period decreased by 14 percent from 73 ± 2.9 to 63 ± 4.1. This is significant at 5 percent. Among the 14 patients with diurnal oscillations in performance, lisuride resulted in a 109 percent increase in the time in which the patients were "on," from 4.6 to 9.6 hours. When used alone, the dose of lisuride was higher (3.6 mg.) than when it was used in combination with levodopa (2.4 mg.). Tachyphylaxis developed less frequently and later on with the lower dose. Nine of the patients developed adverse mental changes similar to those described with the other dopamine agonists. The mental changes were reversible on discontinuation of the drug. Lisuride, when used alone or combined with levodopa, is a promising new anti-Parkinson drug.

In time, the response to levodopa among patients with PD (Parkinson's disease) diminishes.[1,2] The diminished response is usually accompanied by diurnal oscillations in performance: the "wearing off" and/or "on-off" phenomena.[3,4] "Wearing off" refers to the gradual waning of the benefit from a dose of levodopa, usually occurring two to four hours after the dose, with an "off" period lasting until the next dose. "On-off" refers to the abrupt loss of effectiveness of a dose of levodopa with akinesia that may last minutes to hours, followed by an abrupt return of effectiveness. "On-off" phenomena are usually associated with involuntary choreoathetoid movements.

In PD, the striatal dopamine content is decreased in proportion to the degree of degeneration of the dopamine-containing neurons in the substantia nigra.[5] Levodopa therapy depends on the capacity of the remaining neurons to synthesize dopamine in sufficient quantities to stimulate the striatal dopamine receptors.[6,7] Two separate populations of dopamine receptors have been identified in the striatum. One population of receptors is linked to the enzyme adenyl cyclase and is localized predominantly on striatal interneurons.[8] The second population of receptors is not linked to adenyl cyclase and is localized predominantly on the axons of a descending corticostriatal tract.[9] Activation of each of these populations may exert a different effect on the symptoms of PD.

In patients who have been chronically treated with levodopa, the degeneration of the nigrostriatal neurons may proceed to the point where the remaining cells are incapable of synthesizing dopamine from levodopa in sufficient quantities to stimulate the striatal receptors. These patients might benefit from drugs that bypass the degenerating neurons and stimulate the striatal receptors directly: dopamine agonists. Recent attention has centered on the ergot alkaloids as such agonists. Bromocriptine, an ergoline polypeptide, and lergotrile, a semisynthetic nonpeptide ergoline, were shown to have the properties of dopamine agonists. However, both drugs are less potent than dopamine and both also have the properties of striatal dopamine antagonists. Bromocriptine and lergotrile are useful in PD, but only about half of the treated patients respond; alleviation of "on-off" phenomena are modest, and the incidence of adverse psychiatric effects is high.[10-12] The search has, therefore, continued for other agents.

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Lisuride hydrogen maleate is a semisynthetic ergot alkaloid that was shown to be effective in experimental animal models of Parkinson's disease.[13–16] Lisuride is 10 to 20 times more potent on a milligram per milligram basis than the previously tested ergots, and its activity is independent of presynaptic dopamine synthesis and stores.[13–16] Thus, it was felt that lisuride might be particularly useful in patients with extensive degeneration of their presynaptic nigrostriatal neurons. Initial studies have indeed shown that lisuride, when used alone[17,18] or combined with levodopa[19,20] is effective in PD. The purpose of this report is to review these earlier studies and comment on the effects of treatment 18 months later.

Methods

Thirty patients with Parkinson's disease participated in the study, after giving informed consent. There were 20 men and 10 women. The mean age of the patients was 63.6 years, ranging from 47 to 81 years. The mean duration of PD was 11.6 years, with a range of 4 to 27 years. The study was conducted in two parts.

In the first part of the study 10 patients with moderately advanced PD without "on-off" phenomena participated. The method has been described in detail elsewhere.[17] All 10 patients had been treated with levodopa alone or combined with carbidopa (Sinemet), and 6 patients had improved at least one stage. The mean duration of treatment was 6.6 years, with a range of 5 to 9 years. The response of all patients had, in time, diminished and two were actually worse than before starting levodopa. Levodopa was discontinued in all 10 patients for, on average, 18 days prior to starting lisuride.

In the second part of the study, 20 patients with more advanced PD, including 14 with "on-off" phenomena, participated.[20] All the patients had been treated with levodopa, and 17 had improved at least one stage. The mean duration of treatment was 8.4 years, with a range of 5 to 12 years. The response of all patients had, in time, diminished and 13 were worse than before starting levodopa. In all patients, attempts to increase the amount of levodopa or rearrange the timing of the doses of levodopa: carbidopa were, although initially helpful, ultimately unsuccessful. Attempts to decrease levodopa worsened the patient's disease even more. Six patients had even participated in levodopa drug holidays of 7 to 14 days' duration. The holidays were of limited benefit and the benefit, when it occurred, was of short duration.

Fifteen of the patients had been treated with bromocriptine (combined with levodopa), and 6 had improved at least one stage. Mean duration of treatment was 22 months, with a range of 2 to 60 months. The mean daily dose of bromocriptine was 58 mg., with a range of 30 to 100 mg. However, eventually the response to bromocriptine declined. Twelve of the patients had been treated with lergotrile. The mean daily dose was 48 mg., with a range of 30 to 150 mg. The mean duration of treatment was 11 months, with a range of 3 to 41 months. Four patients had improved on lergotrile. The drug had to be discontinued in 11 patients, mainly because of liver toxicity (elevations in serum transaminases without clinical symptoms). All 20 patients had been treated with amantadine or an anticholinergic drug or both. Improvement on these drugs was less than on levodopa, bromocriptine, or lergotrile, and at the time of the study only six patients were receiving anticholinergics or amantadine. Among the more disabled patients, in the second part of the study, an attempt was made to discontinue levodopa in the first five patients. However, this resulted in such worsening of their PD that no attempt was made to discontinue levodopa in the remaining 15 patients. Bromocriptine (nine patients) or lergotrile (one patient) was discontinued in all patients still on these drugs for at least three days before starting lisuride. The resultant worsening of disease experienced by some of the patients was felt to be justified by the lack of information at the time on the safety of combining two different ergots. Amantadine and anticholinergic drugs were continued.

In both groups of patients, lisuride was begun at a dose of 0.1 mg. per day and was increased by 0.1 to 0.4 mg. per day up to a dose which arbitrarily did not exceed 5 mg. per day. All patients were examined daily by a neurologist who was unaware of the medication they were receiving. The neurologist assessed the cardinal signs of PD using a disability rating scale that has been previously described.[21] On this scale "0" represents no involvement and "100 percent" represents maximum involvement. The duration of "wearing off" and/or "on-off" phenomena were assessed separately as previously described.[20,21] A trained nurse or neurologist assessed each patient once each waking hour and noted whether they were "on" and ambulatory or "off" and nonambulatory.

All patients underwent a laboratory evaluation including hemogram and tests of liver and kidney function.

Results

For the group of 30 patients there was a 31 percent significant decrease ($p \leq 0.01$) in disability from 42 ± 4.0 (SEM, standard equivalent of the mean) to 29 ± 3.7 (SEM) as assessed in the "on" period. Sixteen of the 30 patients, or 53 percent, improved at least one stage in their "on" period. Among the 14 patients with "wearing off" and/or "on-off" phenomena there was a 14 percent significant decrease ($p < 0.05$) in disability from 73 ± 2.9 (SEM) to 63 ± 4.1 (SEM) as assessed in the "off" period. Five of the 14 patients, or 36 percent, improved at least one stage in their "off" period. The peak effect of lisuride usually occurred between 8 and 12 weeks.

Among the 10 patients in the first part of the study who were first withdrawn from levodopa and then treated with lisuride, all improved at least one stage on lisuride over their score on no drug. Four patients were at least one stage better on lisuride than on levodopa. However, tachyphylaxis developed and most of the patients were eventually placed on a combination of lisuride and levodopa. Mean daily dose of lisuride was 3.6 mg., with a range of 1.6 to 5.0 mg., and mean duration of treatment was 4 months, range of 2 to 14 months.

Among the 20 patients in the second part of the study who were treated with lisuride, 11 improved at least one stage over treatment with levodopa alone. Among patients with "wearing off" and/or "on-off" phenomena, lisuride resulted in a significant increase ($p \leq 0.01$) in the time in which the patients were "on" and mobile from 4.6 to 9.6 hours. Mean daily dose of lisuride was 2.4 mg., with a range of 1 to 4.8 mg. The mean duration of treatment with the combination of lisuride and levodopa was 8 months, with a range of 1 to 18 months. Ten patients have been on the combination for up to 18 months with no decline in efficacy in five patients. The dose of levodopa (in Sinemet) was reduced by 11 percent from 1,030 mg. to 920 mg.

Adverse effects necessitating discontinuing lisuride among the entire group of 30 patients included the following. A toxic psychosis that occurred in three patients on lisuride alone. In two of the patients, both of whom had a mild underlying organic dementia, the toxic psychosis consisted of hallucinations and delusions in a clouded sensorium. In the third patient, who did not have an organic dementia, the toxic psychosis consisted of hallucinations and delusions in a clear sensorium. A toxic psychosis also occurred in six patients on lisuride combined with levodopa. In three of the patients, two of whom had a mild organic dementia, the psychosis consisted of hallucinations and delusions in a clouded sensorium. In the other three patients, none of whom had an organic dementia, the psychosis consisted of hallucinations and delusions in a clear sensorium. The toxic psychosis on lisuride occurred at a lower dose of the drug when it was combined with levodopa than when it was used alone. Also, the psychosis occurred at a lower dose among patients with an underlying organic dementia than among patients who were free of dementia; an increase in involuntary choreoathetoid movements occurred in two patients; and digital vasospasm occurred in one patient (this patient had also experienced similar changes on bromocriptine and lergotrile). All the adverse effects were reversible within a few days of discontinuing lisuride. Two other patients experienced orthostatic hypotension shortly after starting lisuride, but this did not result in discontinuing the drug. Four patients experienced fluid retention, with weight gains of 5 to 15 pounds. Two of these patients, both with heart disease, developed mild congestive failure. All patients responded to diuretics and in all lisuride was continued. There were no abnormalities in any of the tests of hematologic, liver, or kidney function.

Comment

Lisuride is a powerful new anti-Parkinson drug. Lisuride, when used alone, is effective in relieving symptoms in patients with moderately advanced PD. The greater benefit achieved with lisuride alone (compared to levodopa) among some patients suggests that in these patients a decreased capacity of the remaining nigrostriatal neurons to synthesize dopamine is an important cause of the diminished response to levodopa. The average daily dose of lisuride alone (3.6 mg.) required to achieve an anti-Parkinson effect among moderately disabled patients was higher than the dose of lisuride (2.4 mg.) combined with levodopa that was required to achieve a similar effect among even more disabled patients.

The ergot alkaloids, lisuride, bromocriptine, and pergolide (another new and potent ergot[22,23]) differ among themselves in that they preferentially activate different populations of dopaminergic receptors. Thus, lisuride and bromocriptine activate the nonadenyl cyclase-linked receptors,[24] while dopamine and pergolide activate the adenyl cyclase-linked receptors.[25] The greater anti-Parkinson effect achieved with the combination of lisuride and levodopa may be due to simultaneous activation of both types of receptors. Simultaneous activation of both types of dopamine receptors may also explain why lisuride with a short half-life is useful among patients with marked diurnal oscillations in performance. Additionally, while the role of serotonin has not been clearly established in PD,[26,27] serotonin levels are low in this disorder.[5] Thus, activation of central serotonin receptors by lisuride may also be beneficial in some patients.

The decreased response to lisuride alone that occurred within four months of initiating treatment, suggests that tachyphylaxis to this agonist develops. Tachyphylaxis may be related to desensitization of the dopamine receptors, perhaps as a consequence of their constant activation by a relatively high dose of a potent agonist. Thus, it is noteworthy that when lisuride was used at a lower dose in even more severely disabled patients, tachyphylaxis occurred less frequently and much later: eight months after initiating treatment.

Treatment with lisuride was compared with bromocriptine in 15 patients who had been on both drugs and with lergotrile in 12 patients who had been on both drugs. Somewhat greater improvement was achieved with lisuride than with bromocriptine or lergotrile in patients as assessed in both their "on" and "off" periods. In addition, the duration of the "on" periods was greater with lisuride than with bromocriptine or lergotrile. This is especially noteworthy because treatment with lisuride was begun at a time when the patients were, on average, three years older with more advanced disease. The seemingly greater efficacy of lisuride compared to the other ergots in patients with advanced PD may be related to lisuride's greater potency, its lack of dependence on presynaptic dopamine synthesis or stores, or its ability to stimulate central serotonin receptors.

The high incidence, 9 out of 30 patients, of adverse mental changes on lisuride is worthy of comment. In general, the mental changes were dose-related and patients with an underlying organic dementia were more sensitive than those without a dementia. The incidence and types of mental changes were comparable to those described with bromocriptine and lergotrile.[10-12,28] The incidence of mental changes appears to be less than that described with pergolide.[23] Approximately 30 percent of all patients with PD have (or develop) an organic dementia.[29] The high incidence of mental changes on lisuride may reflect this underlying dementia. The greater incidence of mental changes among patients treated with lisuride, bromocriptine or lergotrile, agents that activate the noncyclase-linked dopamine receptor may reflect greater involvement of these receptors (localized predominantly on the descending axons of a corticostriatal tract) with higher intellectual processes. All the mental changes were reversible within a few days of stopping lisuride. The incidence of adverse mental effects, although high, is considered justified given the advanced state of the patient's disease and the failure of alternate modes of treatment. It is conceivable that there will be fewer adverse mental changes in patients with less advanced disease on lower doses of lisuride.

The existence of at least two classes of dopaminergic receptors and the availability of drugs that preferentially activate one or another of them opens up several new therapeutic strategies. One strategy would be to withhold levodopa from newly diagnosed Parkinson patients on the controversial assumption that the diminished response to levodopa, which ensues with treatment, is a consequence of treatment rather than of progression of the disease.[30,31] This strategy, until now, has been feasible only in mildly disabled patients as many of them may be treated with anticholinergic drugs or amantadine. However, it had not been possible to withhold levodopa from the more disabled patients who do not respond satisfactorily to anticholinergics or amantadine. Introduction of lisuride makes such a strategy feasible. A second strategy would be to discontinue levodopa in some patients who are exhibiting a decreased response to it and treat them with lisuride. When these patients then begin to exhibit a decreased response to lisuride, they would, after having a "levodopa holiday," be treated with levodopa again. They might, as shown by others, then exhibit an enhanced response to the reintroduction of levodopa after the "holiday."[32,33] A third strategy would consist of treating patients with a low dose of both levodopa and lisuride. Combined treatment with a lower dose of each drug may delay the development of desensitization at each receptor and make it possible to treat all patients more effectively for a longer period of time.

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Mothers can breast feed and use "the pill," says AAP

Breast feeding mothers can use oral contraceptives safely, even though the quantity and ingredients of their breast milk may change as a result, according to the American Academy of Pediatrics.

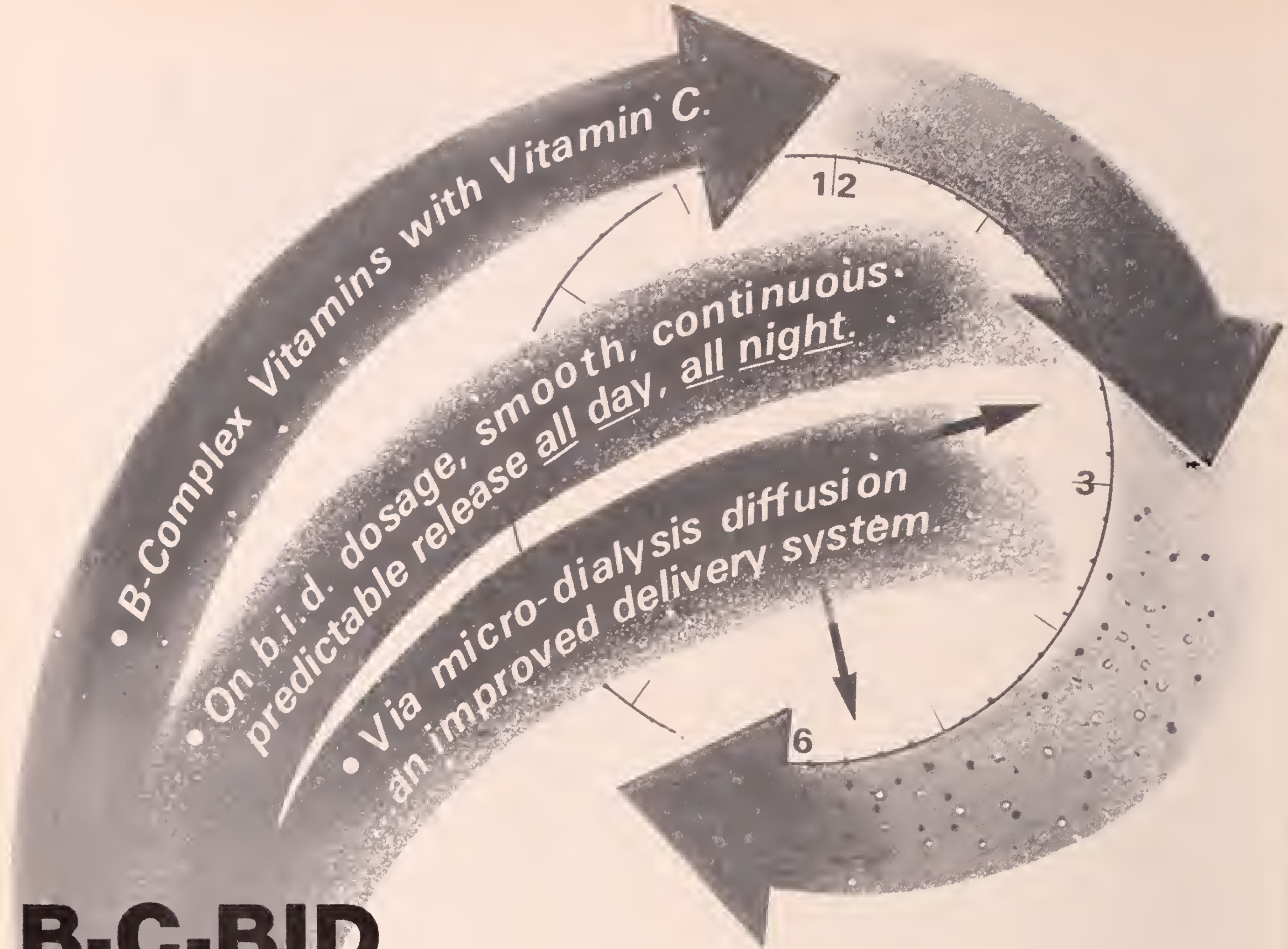
Guidelines on birth control for lactating mothers were published in July by the AAP in *Pediatrics*, the Academy's official journal. Issued as a policy statement, the guidelines were written in order to clarify "confusing recommendations" which have been made regarding the effects of various contraceptive methods on breast milk and nursing infants.

Although using the Pill while breast feeding has drawn much attention, says the AAP, "no unique effect of steroidal contraceptives on nursing mothers has been confirmed." The active ingredients in most birth control pills are synthetic types of two steroid hormones, estrogen and progestin. No consistent long-term effects on children's growth or development have been described when the mother's oral contraceptive contained a combination of these agents or progestin only, says the AAP. However, use of these contraceptive drugs in the immediate postpartum period may suppress lactation.

Another major point of the AAP statement is the recommendation that, although breast feeding itself has a contraceptive action, mothers who want complete protection should not depend on the contraceptive effects of breast feeding alone after about four or five weeks following delivery. When a mother's menstrual flow is absent and she is breast feeding, ovulation usually does not occur until the end of the tenth week after birth. This is not always true, however. Five percent to 10 percent of nonmenstruating lactating mothers become pregnant. An even larger proportion of menstruating breast feeding mothers conceive.

Neither barrier contraceptives, such as the diaphram and condom, nor the IUD (intrauterine device), would seem to have any effect on breast feeding, says the AAP. Using the IUD, however, is less desirable for women who have not completed their families or who have other medical contraindications because of the increased risk of pelvic inflammatory disease.

Since more than one solution is available to breast feeding mothers who wish birth control, says the AAP, it is important that the needs of the lactating mother and her infant be reviewed "so then an informed, individualized, and effective choice can be made."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Cryotherapy in Cervical Disease

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In recent years locally destructive modalities of treatment have become increasingly popular in management of CIN (cervical intraepithelial neoplasia). Cauterization, cryotherapy, or laser-beam therapy now are used more frequently than the traditional methods such as conization and hysterectomy.[1–5] One reason for this conservative trend in management of cervical neoplasia has been the advent of colposcopy for diagnosis of cervical disease. The direct visualization of the neoplastic lesion with a colposcope make it possible to apply an "on target" treatment directly to the lesion.[6–8]

Another important reason for contributing to conservatism was the recent rise in frequency of cervical neoplasia among the very young and nulliparous women.[9–11] These conservative methods do not jeopardize patients' reproductive capacity and do not carry the same risks as conization or hysterectomy.[12] An additional value of the conservative methods is that they may be employed in the outpatient department setting because they do not require anesthesia and cause no or very little discomfort to the the patients. Of all locally destructive methods, cryotherapy became the most popular because it is considerably cheaper than laser-beam therapy and causes less discomfort to the patient than electrocautery.[2,4] Cryotherapy also does not affect the deeper layers of the connective tissue and causes no scars or strictures.[4]

Some investigators recommend that all grades of CIN—mild, moderate, and severe dysplasia and carcinoma in situ—could be treated with cryotherapy provided that the area of CIN was fully accessible and not too large.[3,13] The published preliminary results of clinical trials of cryotherapy have been, in general, encouraging. The failure rates in these reports varied from 6 to 19 percent.[4,3,14] In one study, in which the results of cryosurgical treatment were evaluated on subsequent conization or hysterectomy, the residual disease was found in 48 percent of cases after a single freeze and in 18 percent of cases after a double freeze.[15] Caution was expressed by some investigators about the accuracy of cytologic studies and colposcopy for detection of residual disease in postcryotherapy patients, because of the "possibility that some pathologic epithelium may be present in the deeper clefts and that this epithelium may be viable." [16] Recently, a longer-term follow-up study was published on 143 women observed for two to eight years after cryotherapy. Two of these women developed invasive cancer subsequent to cryotherapy, at 2 and 69 months after cryotherapy, respectively.[17]

Materials and methods

This report presents the results achieved in 413 patients with cervical disease who were treated with cryotherapy between 1974 and 1978 at the Metropolitan Hospital Medical Center Detection Clinic and followed until June, 1980.

The Cancer Detection Clinic at Metropolitan Hospital has been active since 1959; during the last 19 years all Pap (Papanicolaou) smears and biopsy specimens have been interpreted in a consistent manner by the same team of pathologists and reviewed by the author. For the past 10 years the colposcope was used routinely for the diagnosis of cervical neoplasia. According to the clinic protocol, all patients are being referred for colposcopy examination if their Pap smear reading shows CIN-1 (mild dysplasia) or more, or who had two repeat atypical smears of uncertain significance. Colposcopic examination is performed using the colposcope (Leisegang) at 13 times magnification. (All examinations are performed by the author or his associate.) Full visualization of the cervical transformation zone is always attempted, if necessary aided by a Q-tip or endocervical speculum. Target punch biopsies are taken from the abnormal area and ECCs (endocervical curettings) are obtained in addition to punch biopsy. After examination all patients are given an appointment in two weeks, at which time they are informed about the results of their examination and treated if necessary.

Since 1974, patients were treated in a uniform manner according to the following guidelines:

1. Chronic cervicitis, symptomatic: cryotherapy.
2. Chronic cervicitis, asymptomatic: follow-up without treatment.
3. CIN-1 and CIN-2 (mild or moderate dysplasia) with negative ECC and full visualization of the trans-

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formation zone: cryotherapy.

4. CIN-1 and CIN-2 with either positive ECC or nonvisualization of entire transformation zone: conization.

5. CIN-3 (severe dysplasia or carcinoma in situ) with negative ECC and full visualization of the transformation zone: therapeutic conization or hysterectomy according to patient's age and gravidity.

6. CIN-3 with either positive ECC or nonvisualization of the entire transformation zone: diagnostic conization.

Cryotherapy was performed with a carbon dioxide unit with adequate gas pressure in the tank. Freezing-thawing-freezing method was utilized, freezing being continued until the ice ball extended 2 mm. beyond the edge of the probe. The follow-up appointments were given to the patients at three- and six-month intervals. Six months after the treatment, a repeat cytologic examination was performed: if results were negative, two additional Pap smears were taken at three-month intervals; if results were positive, colposcopic examination, punch biopsies, and ECC were repeated.

Patients treated by conization were seen in the clinic at three- and six-month intervals and repeat cytologic tests were done at six months.

A running record was kept on each patient. Entered into the record were: dates of each clinic visit; description of colposcopy findings; and results and dates of each Pap smear or biopsy and of all types of treatment—cryotherapy, conization, or hysterectomy.

During the period of this report 761 patients were evaluated colposcopically according to the described protocol.

CIN-1 and CIN-2 (mild or moderate dysplasia) was diagnosed in 267 patients. CIN-3 (severe dysplasia or carcinoma in situ) was found in 103 women and invasive cervical carcinoma in 14. Five patients had primary vaginal neoplasia. Benign conditions—cervicitis, vaginitis, condylomata acuminata—were found in 372 patients.

Two hundred and 21 women with CIN-1 and CIN-2 (mild or moderate cervical intraepithelial dysplasia) proved on colposcopic biopsy and 317 women with benign cervical disease were treated by cryotherapy. Of these, 178 CIN patients were followed from 6 to 80 months and monitored for residual disease with Papanicolaou smears and colposcopic biopsies; 43 patients were lost to follow-up. In 18 patients (10.1 percent) residual CIN-1, CIN-2, or progression to CIN-3 (severe dysplasia) was diagnosed from 6 to 50 months after cryotherapy; in 7 of these patients (39 percent), the diagnosis was made 18 or more months after treatment. Twelve patients with persistent CIN-1 or CIN-2 received second cryotherapy after which progression occurred in two patients and persistent disease was found in three. Six patients showed no residual CIN. CIN-1 or CIN-2 was diagnosed in 4 out of 181 women treated with cryotherapy for benign cervical disease. All patients treated with cryotherapy for cervical neoplasia must be closely monitored for long periods of time because the residual disease occurs in over 10 percent of cases and may not be recognized for many months or years.

Results

Chronic cervicitis. Of the 317 women with colposcopic biopsy diagnosis of chronic cervicitis, 181 were treated by cryotherapy (Table I). Of the treated patients, 157 were followed with smears subsequent to cryotherapy at regular intervals. In four patients, or 2.5 percent, CIN was diagnosed at 28-, 19-, 10-, and 6-month intervals after cryotherapy. Two of these patients were subsequently treated with conization; two others were treated with repeat cryotherapy. In one patient abnormal smear persisted after second cryotherapy and in the other patient the smears remained negative following repeated treatment. Twenty-nine of the women treated with cryotherapy did not receive any other treatment. Seventy of these patients had repeat examination at regular intervals ranging from 6 to 36 months, and their Pap smears remained negative. Sixty-one patients did not return for follow-up examinations.

TABLE I. Treatment and outcome of 317 patients with chronic cervicitis

Treatment	Followed 6 months without Progression	Progressed to CIN	Total Followed	Not Followed	Total
Cryotherapy	153	4 (2.5%)	157	29	186
Not treated	...	...	70	61	131

TABLE II. Treatment and outcome of 267 patients with CIN-1 and CIN-2

Treatment	Followed 6 Months		Total Followed	Not Followed	Total
	Without Recurrence	With Recurrence			
Cryotherapy	160	18 (10.1%)	178	43	221
Conization	4	1	5	1	6
Hysterectomy	...	...	...	2	2
Not treated	13	1	14	24	38
TOTALS	...	...	197	70	267

TABLE III. Length of follow-up (months) of patient with CIN-1 and CIN-2 after cryotherapy

Category	12	12 to 23	24 to 25	36 to 47	48 to 59	60 plus	Total
With persistent disease	10	3	3	1	1	0	18
No persistence	31	25	34	43	19	8	160
TOTALS	41	28	37	44	20	8	178

TABLE IV. Fate of 18 patients with persistent disease after cryotherapy

Treatment of Persistence	Results	Further Therapy	Number of Patients
Conization*	No evident disease	None	4
Second cryotherapy	Progressed to CIN-3	Conization	2
Second cryotherapy	Persistence	Conization	1
Second cryotherapy	Lost to follow-up	None	1
Second cryotherapy	No evident disease†	None	6
Second cryotherapy	Persistence	Third cryotherapy; no evident disease after 43 months	1
Second cryotherapy	No evident disease	Hysterectomy for intercurrent disease	2
None: lost to follow-up	...	...	1
TOTAL			18

* Two patients treated by conization for progression to CIN-3, and two patients for persistence of CIN-2.

† Followed for 8, 11, 24, 34, 36, and 41 months, respectively.

CIN-1 and CIN-2. Of the total 267 patients with CIN-1 and CIN-2, 221 were treated with cryotherapy (Table II). Forty-three patients, or 19 percent, were lost to follow-up. There were 178 postcryotherapy patients who were seen initially at three-month intervals for repeat Pap smear followed by biannual visits; 41 were followed from 6 to 11 months, 28 from 12 to 23 months, 37 from 24 to 25 months, 44 from 36 to 47 months, 20 from 48 to 59 months, and 8 for more than 60 months (Table III). Forty-three patients failed to return for follow-up appointments. Of the followed patients, 160 had negative Pap smears on subsequent examinations. In 18 women, or 10.1 percent, persistent neoplasia was diagnosed at intervals ranging from 6 to 50 months after cryotherapy. In 7 of 18 cases, or 39 percent, persistent disease was noted at 18 or more months after cryotherapy (18, 22, 24, 28, 29, 41, and 50 months, respectively). In all 18 patients persistence was detected on Pap smears and confirmed by colposcopic biopsy. One patient with persistent disease was lost to follow-up.

The remaining 17 patients with persistence were managed as follows (Table IV). Two women were treated by conization because progression from CIN-2 to CIN-3 was established on colposcopically directed biopsy 28 and 38 months after cryotherapy. Two additional patients were treated by conization for persistent disease. Thirteen patients had repeat cryotherapy. In two of these patients repeat biopsies after abnormal Pap smears showed progression from CIN-2 to CIN-3. Both these patients were treated by conization. Thus a total of four women had progression of their disease after cryotherapy. Three patients had persistent disease diagnosed after second cryotherapy. One of these patients was treated by conization and one by cryotherapy for the third time after which she was observed without recurrence for 43 months. The third patient with persistent disease after second cryotherapy did not return for treatment. Two patients had hysterectomies for intercurrent disease and no residual neoplasia was found in their operative specimens. Of the total of 12 patients treated by second cryotherapy and observed, 6 had no evidence of disease at 8, 11, 34, 36, and 41 months after treatment. No cases of invasive cancer occurred in patients after cryotherapy.

Six patients were treated primarily by conization. Five of these patients were followed from 12 to 30 months. In one of these patients CIN recurred three years after conization. Two patients were treated by hysterectomy for intercurrent benign disease (Table II).

Fourteen patients were followed without treatment from 6 to 30 months. No recurrence was noted after biopsy in 13 of these patients. One had persistent disease diagnosed on biopsy (Table II).

Comment

Cryotherapy method used experimentally for treatment of CIN-1 and CIN-2 achieved at least a temporary arrest in 89.9 percent of patients. The recurrent neoplasia was always intraepithelial and no invasive cancer developed in patients treated by cryotherapy. It appears clear, nevertheless, from our experience as well as from the published reports, that cryotherapy is not the ultimate answer to the problem of CIN management simply because not all cases are cured. The 10.1-percent failure rate observed in our patients is slightly higher than in some other reports.[4,13,14] We were particularly concerned about four cases with progression to CIN-3 noted after cryotherapy. Our figure of 89.9 percent of patients free of disease must be interpreted with caution, keeping in mind that certain percentages of CIN will regress after biopsy without subsequent treatment. Indeed, in our previous study[18] of dysplasia we found that 42 percent of cases regressed spontaneously after the biopsy and, therefore, the present figure of 89.9 percent remission must be revised down to 47.9 percent. We consider valid the comparison of our present results with the previous study in 1960, because the interpretation of the pathologic specimens was done in both instances in a consistent manner by the same team of pathologists. It must be assumed, therefore, that the figures are not distorted by different diagnostic criteria. The "spontaneous cure" of dysplasia was also demonstrated in the present study in 13 of 14 women who were followed without treatment from 6 to 30 months without recurrence.

It must be also emphasized that the period of observation of our patients is much too short for meaningful evaluation of the results because CIN is known to develop extremely slowly, with possibly as long as a 20-year interval between the onset of CIN and the invasive cancer.[19] Nevertheless, our results permit certain conclusions. The need for long-term follow-up is reemphasized by observation of long intervals between the treatment and the evidence of persistence in our patients, more than 18 months, and in 2 patients for as long as 41 and 60 months. Patients managed with cryotherapy, but not followed with Pap smears, must therefore be considered as inadequately treated. Particularly disturbing is the high figure, 19 percent in our group of patients, who did not return for examinations in spite of efforts by experienced personnel in our clinic which has a long established follow-up system.[18] It must be assumed that 10.1 percent of these women may have recurrent CIN and are therefore inadequately treated.

A finding of note in our experience was the emergence of CIN in women treated with cryotherapy for chronic cervicitis. It is not known whether CIN was present during cryotherapy and missed on colposcopic examination or occurred de novo. In any event, this finding cast doubt on the often quoted evidence that cryotherapy or cauterization of the cervix prevents CIN.[20]

In conclusion, it appears that cryotherapy is a valuable adjunct in the armamentarium against CIN, but it must be considered as an experimental method and its effectiveness not yet proved. Pending better understanding of the natural history of CIN and longer follow-up studies, the physicians using cryotherapy must be fully aware of its limitations and undertake full responsibility for rigorous follow-up of the patients after treatment.

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Use of Carbon Dioxide Laser in Pediatric Otolaryngologic Disease

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The CO_2 (carbon dioxide) laser has been in use in otolaryngology since 1972 when Jako[1] and Strong[2] published their initial work. The early uses were mainly directed at pathologic conditions of the larynx.[2] A bronchoscopic attachment was developed in 1973, followed by transoral and transnasal uses of the laser.[3–5]

The CO_2 laser has been shown to have the following properties which make it a useful clinical tool:

1. Controlled destruction of tissue: the unique thermal lesion produced by the CO_2 laser permits microscopically controlled excision of lesions as small as 1 to 2 mm.[6,7]
2. Minimal scarring: Hall et al.[8] have shown that there is minimal damage to tissue surrounding the laser lesion so that rapid healing with minimal or no scarring occurs.
3. A dry field[9]: blood vessels up to 2 mm. are sealed by the laser energy.
4. Minimal trauma to the airway: since the laser energy is used to ablate, there is no need for instrumentation which may compromise the airway because of resulting edema.

These properties of the CO_2 laser make it useful in the treatment of various pediatric otolaryngologic problems. The following is a report of our results using the CO_2 laser to treat pediatric otolaryngologic disease during a two-year period, 1978 to 1980.

Materials and methods

All records of children undergoing operative procedures employing the CO_2 laser at the Hospital of the Albert Einstein College of Medicine for this two-year period were reviewed. There were five different clinical entities treated with the laser: subglottic stenosis, respiratory papilloma, upper airway hemangioma, choanal atresia, and tonsillectomy.

All cases were treated with a CO_2 surgical laser (Cavitron) with one of two delivery systems: either the microscope (Zeiss) with laryngoscopic attachment or the bronchoscopic arm with bronchoscopes (Wolfe).

Anesthesia was delivered by way of existing tracheotomy, oral endotracheal intubation with foil-wrapped polyvinyl chloride endotracheal tube, a venturi ventilator attachment (Sanders) to a laryngoscope, or a ventilating bronchoscope. The type of anesthesia was determined by the type of pathologic condition and the state of the airway. The standard precautions against fire hazard were taken.[10]

When treating subglottic stenosis, respiratory papilloma and hemangioma, the pathology was initially evaluated using the bronchoscope (Karl Stortz) with the Hopkins' rod magnifying optics prior to initiating laser surgery. Most patients were admitted through our one-day unit where they were examined preoperatively by a pediatrician. Following a suitable recovery period, they were returned to this unit and discharged. Mist tents and steroids were employed postoperatively as necessary. In some instances where there was a possibility of laryngeal swelling due to either the size of the lesion or to instrumentation, the child was watched until the following morning and then discharged.

TABLE I. Subglottic stenosis

Case	Etiology	Age at Tracheotomy	Age at Decannulation	Total Number of Laser Therapies	Number of Procedures
1	Congenital subglottic stenosis	1 month	...	2	3
2	Respiratory distress syndrome—intubation	10 months	14 months	4	10
3	Respiratory distress syndrome—intubation	1 year	...	4	19
4	Respiratory distress syndrome—intubation	1 month	...	2	10
5	Croup—intubation	1 year	1 year, 3 months	2	3
6	Respiratory distress syndrome—intubation	1 year	...	6	7
7	Cerebral palsy & subglottic stenosis 2—intubation	7 months	14 months	3	3
8	Prolonged intubation following drowning	2 years, 6 months	2 years, 10 months	2	3
9	Prolonged intubation following gunshot wound	14 years	14 years, 6 months	6	7
10	Prolonged intubation—premature	3 months	9 months	3	3
11	Prolonged intubation—premature	8 months	...	3	3
12	Respiratory distress syndrome—prolonged intubation	Birth	...	8	25

* Died at home.

The carbon dioxide surgical laser can be a valuable addition to the standard armamentarium for treating pediatric otolaryngologic disease. The laser has been used at the Hospital of the Albert Einstein College of Medicine to treat subglottic stenosis, respiratory papilloma, laryngeal hemangioma, choanal atresia, and for tonsillectomy. The best results were obtained with laryngeal and tracheal papilloma. The laser also was effective in subglottic stenosis due to granulations and in subglottic hemangioma. Choanal atresia and tonsillectomy could be performed when the laser was used in conjunction with standard surgical techniques.

Results

Subglottic stenosis. Twelve patients with a diagnosis of subglottic stenosis were treated with the CO_2 laser. These patients are listed and analyzed in Table I. Many of the patients had previous operative procedures, usually repeated endoscopic dilatations prior to the initiating of laser surgery. A total of 45 laser procedures were performed on these 12 patients. The average number of laser procedures performed was 3.75 per patient. If dilatations are included, each patient had an average of 8 procedures performed for subglottic lesion. Our patient population appeared with multiple etiologic conditions for subglottic stenosis and this affected our ability to decannulate them. Decannulation was achieved in 6 of the 12 patients, or 50 percent, during this two-year period. The average time of decannulation from the commencement of the laser therapy was 3.6 months.

The laser was used to destroy granulation tissue and edematous mucosa. Attempts were made to destroy hard fibrous scar, which mostly was formed of either connective tissue and/or hypertrophy of cartilage. These latter lesions appeared to re-form within a few weeks after laser vaporization.

Of the six patients who were not decannulated, five of them had intubation in the perinatal period for respiratory distress and syndrome and one patient had a congenital subglottic stenosis. Two of our patients had preexisting tracheostomies at least eight months prior to initiating laser surgery. All failures had severe narrowing of the subglottic area secondary to either scar tissue or cartilage. This thick tissue did not respond well to the CO_2 laser. In some cases, open exploration was required.

All the patients who have been extubated have been followed up with laryngoscopies. None has had any subsequent history of upper respiratory distress. The mean follow-up time is 8 months, and the range is from 2 to 15 months.

Respiratory papilloma. Eight patients with recurrent respiratory papilloma were treated (Table II). All these patients had previous procedures performed such as cryotherapy and/or mechanical removal.

A total of 50 laser procedures were performed, or 6.25 procedures per patient. Patients with laryngeal papilloma required the least number of procedures to control the papilloma—2.6 procedures per patient, or 2.3 procedures per year. Laryngeal papilloma could be adequately managed with the CO_2 microlaryngoscopic delivery system. The patients with tracheal papilloma required more procedures per patient to control the disease: they had 8.4 procedures performed per patient, or 4.3 procedures per patient per year. One patient from the group of eight had a tracheostomy when he entered treatment at this institution. Of the remaining seven, only one patient needed a tracheostomy during his laser therapy. This patient failed to keep scheduled appointments for six months. When he was seen again in the hospital, he had massive recurrence of laryngeal and tracheal papilloma occluding the airway. An attempt was made to open the airway with the laser. However, the airway was still insufficient and the patient developed severe stridor, requiring tracheostomy.

Laryngeal hemangioma. Four patients with hemangioma of the larynx have been treated (Table III). Two had posterior subglottic hemangioma, one with a transglottic hemangioma and one with a supraglottic hemangioma. All these patients have had a tracheostomy. One case of subglottic hemangioma was decannulated at two and one-half years, one year after the initiation of the laser therapy. The laser was extremely effective in destroying the small lo-

TABLE II. Respiratory papilloma

Case	Age First Seen	Sex	Location of Papilloma	Total Number of Procedures Before Laser Therapy	Total Number of Laser Procedures
1	1 month (Larynx)	F	True vocal cords	2	2
2	3 months (Larynx & trachea)	F	Transglottic	33	5
3[*]	4 years (Larynx, trachea, bronchi)	M	Larynx & trachea	12 (Tracheotomized)	12
4	6 years (Larynx)	M	False and true vocal cords	4	4
5	4 years (Larynx & trachea)	M	Larynx & trachea	10	10
6	2 years (Larynx & trachea)	M	Larynx & trachea	10	10
7[†]	7 years (Larynx & trachea)	M	Larynx & trachea	Multiple	5
8	4 years (Larynx)	M	True vocal cords	8	2

[*] Patient was tracheotomized after being lost to follow-up for 6 months.

[†] Patient had a tracheotomy when first seen and patient has had multiple endoscopic and laser procedures at other institutions.

TABLE III. Laryngeal hemangioma

Type	Sex	Age at Tracheotomy	Age at Commencement of Laser Therapy	Number of Laser Therapies	Age at Decannulation
Subglottic	F	5 months	1 year, 1 month	2	2 years, 1 month
Subglottic	M	1 month	2 months	2	. . .
Transglottic	M	4 months	5 months	11	2 years
Supraglottic	M	2 months	2 months	5	. . .

calized lesions.

The second case of subglottic hemangioma is relatively new and has been treated only two times with encouraging results. The patient with the transglottic hemangioma had 11 laser therapies. The patient's voice seemed to have improved for one or two months before the hemangioma grew back. This patient was decannulated at 24 months at which time the hemangioma appeared to stop growing. The patient with the supraglottic hemangioma has had five laser therapies. This hemangioma is still in its growth phase but has been controlled so that the patient has developed a voice. It is not surprising, in view of the pathologic condition,[11] that the larger hemangiomas, that is, the transglottic and supraglottic ones, cannot be thoroughly eradicated, since probably the portion of the hemangioma that is seen endoscopically represents only a portion of the entire tumor.

Choanal atresia. Four patients with bilateral choanal atresia had the CO_2 laser used as part of the surgical technique in correcting the defect. All these procedures were performed transnasally with the use of the operating microscope and CO_2 laser attachment. A nasal speculum was held in place to afford a view of the surgical field. The laser was used to destroy the mucous membranes. This provided a dry field so that the bone could be drilled and curetted away. Stents were used on all patients. The choanae are patent with follow-up from six months to two years in all these patients.

Tonsillectomy. Ten tonsillectomies have been performed transorally with the use of the CO_2 laser and the operating microscope. Fire precautions taken included saline sponges and foil-wrapped endotracheal tubes. The laser was used for dissection of the tonsil from its underlying bed. All cases of bleeding not controlled by the laser were clamped, then suture ligated once the tonsil was removed. Ten cases have been treated without morbidity and with minimal blood loss.

Comment

The 12 cases of subglottic stenosis allow for the following preliminary observations. Granulation tissue in the airway responded best to the surgical laser. Ablation of this tissue was complete and was carried out with minimal power settings. Firm stenosis, fibrous tissue, or hypertrophic cartilage responded poorly. In those patients who responded well, cannulation time was shortened. If there was a poor response after two or three laser therapies, the laser treatment was discontinued and consideration was given to open exploration of the subglottic space. All failures were on patients who had firm stenosis or concentric narrowing of the subglottic space. Children with collapse of the subglottic space or the upper trachea were not considered to be candidates for laser therapy. We feel hospitalization was shortened in those cases amenable to laser therapy. All the patients with subglottic stenosis were able to maintain normal activities with their tracheostomies during laser therapy. Most of these patients were cared for at home. It appears that the laser has a role in selected cases of subglottic stenosis when the problem is one of granulation tissue blocking the airway and delaying decannulation.

The surgical laser is effective in controlling laryngeal and tracheal papilloma. Papilloma can be destroyed without damage to the underlying laryngeal structures. It is felt that laryngeal papilloma should be treated often with the CO_2 laser so that the airway is never borderline and thus avoid pre- or postoperative respiratory distress. The venturi apparatus (Sanders) permitted better visualization of laryngeal pathologic conditions, enabling better removal of papilloma with the laser.

The quality of voice in those children in whom the papilloma have been controlled has been good. In those cases with massive recurrence of papilloma voice quality has been poor, even with attempted laser control.

The bronchoscopic laser delivery system was effective in controlling tracheal papilloma. These patients required more laser surgery to control papilloma and clear the airway. If the laser had not been available for these cases of tracheal papilloma, it is felt that there would have been an increase in morbidity. One of our patients probably would not have survived because of the extensive growth of the papilloma in his trachea. Postoperatively, after extensive removal of tracheal papilloma, there is a definite increase in secretions, most probably due to increased mucociliary transport because of damage to the tracheal mucosa. During the evolvement of surgical techniques with the tracheal papilloma, there has been an attempt to not perform circumferential destructions of the papilloma, but to always leave one side of the trachea intact to promote better tracheal clearance of mucus. These children most often stay overnight for suctioning of the trachea. They also must be watched carefully for two or three days postoperatively to avoid excessive pooling of secretions in their trachea.

The only significant morbidity that has been encountered for laser therapy was the one child who had to have a tracheostomy for massive recurrence of papilloma. This child was lost to follow-up for a period of six months, and when he returned, he was in acute respiratory distress. As has been seen with other therapies of papilloma, a number of our other children also had been lost to follow-up for social reasons. A number of these have also returned with massive papilloma which we have been able to control without necessitating tracheostomy. The patient should be brought in at intervals determined by the biology of the papilloma and the host response and this should be a time when the child is not in respiratory distress, if tracheostomy is to be avoided.

Laser therapy for treatment of laryngeal hemangioma appears to have decreased the cannulation time in one patient. Prior to use of the laser, our decannulation time was, on the average, three years. Although the number of patients is small, we feel that the best results can be obtained in the subglottic hemangiomas. The transglottic and supraglottic hemangiomas should be treated with the expectation that the best result should only be improvement of voice and not necessarily that of decreased cannulation time.

The use of the carbon dioxide laser in the treatment of bilateral choanal atresia has been an important surgical adjunct to the conventional methods of treating this disorder in infants. The CO_2 laser has allowed the surgeon to work in an almost bloodless field. The control of bleeding and magnification make the transnasal repair feasible, decreasing operative time and postoperative hospitalization, as seen in transpalatal repair. This is important when operating on young infants, especially since the incidence of other disease in many of these children makes them potential operative risks.

The tonsillectomies performed with the CO_2 laser were able to be done in the same amount of time as with conventional techniques, with significantly less bleeding. The setting up of the operating room with the laser, however, does require more time. However, this can be done, for the most part, before the patient is put to sleep to minimize the time of anesthesia. Cases of bleeding not controlled by the laser must be suture ligated. It is questionable whether or not the laser is superior to conventional techniques for tonsillectomy at this time.

One of our most frequent problems was that of mechanical failure of the bronchoscopic equipment. This has been either due to a faulty alignment or the cleanliness of the optical mirrors causing decreased delivery of power to the operative field. The manufacturer has worked quite closely with our institution to overcome these problems. At the present time, the reliability of both the laryngoscopic and bronchoscopic laser is quite acceptable.

The operating room staff, including the surgeon, must have good training in the care, maintenance, and use of the laser equipment for it to work effectively. There is also a need for laryngoscopes and bronchoscopes of smaller size with better optics for treating infants and neonates.

Since the advent of the use of the CO_2 laser, there have been a number of reports of laser-generated fires in the upper airway. Safety precautions, including eye protection, must be taken when the laser is used.[12–15]

Our total laser experience in adults and children is greater than 200 cases, and there have been no fires or any accidental laser burns, to another part of the patient or the staff, excluding occasional burns of the surgeon's finger. This lack of accident has probably been due to the meticulous attention to detail during laser surgery and by having a well-trained, disciplined, and fully educated operating room staff.

Results using laser therapy in the pediatric population have been encouraging. In reviewing our cases we can state the following: the laser appears to be useful for selected cases of subglottic stenosis and laryngeal hemangiomas; the treatment of laryngeal and tracheal papilloma is one of the best uses of the laser and this report serves to confirm previous reports; and, further, the CO_2 laser has also been found to be a useful adjunct in the surgical management of choanal atresia in infants and for tonsillectomy.

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Lumpectomy and Chemotherapy

Unproved method of treating breast cancer

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Some confusion exists today among patients and their physicians as to how to treat a breast cancer when the patient refuses a mastectomy or the operation seems inadvisable for medical reasons. Lumpectomy, followed by chemotherapy, is occasionally performed as the only other treatment modality. This is a misinterpretation of the role of adjunctive chemotherapy, which is properly administered, in addition to adequate local therapy (mastectomy or radiation therapy) to treat micrometastases in patients whose axillary lymph nodes are positive for cancer. Two cases are presented which demonstrate persistent growth of carcinoma in the breast where the only treatment was lumpectomy and chemotherapy. It is not yet possible to select chemotherapeutic agents that can substitute for adequate local treatment.

Women today are aware that there are differences of opinion within the medical community as to how to treat a primary breast cancer. Patients, themselves, have incomplete information: from their friends and from the media they have been told they have choices, all equally as good. Two common misconceptions are that (1) instead of having a mastectomy only the lump has to be removed, and also that (2) chemotherapy is preferable to radiation therapy.

It has become fashionable to emphasize that breast cancer is a systemic disease and to forget that the primary cancer within the breast must be adequately treated. Physicians have also misconstrued the role of adjuvant chemotherapy in the treatment of breast cancer, which has never been proved to be a substitute for local treatment. The approach selected for an individual patient is frequently being determined by the motivation of the patient who is strongly influenced by what she has learned and by the prejudices and interests of the physicians who are treating her.

Materials and methods

Two patients with breast cancer, ages 31 and 77, provided dilemmas in management for their physicians. Each had specific age-related problems and each was treated in a similar unorthodox manner. Progression of their disease required additional therapy and provides the basis for this discussion.

Case reports

Case 1. A 31-year-old single woman had a 2-cm. infiltrating duct-cell carcinoma excised from the upper outer quadrant of her right breast on November 18, 1974. The surgical margins were clear of tumor, and the axillary lymph nodes were not clinically enlarged. A complete work-up included a chest x-ray and a bone scan (scintiscan), both of which ruled out the presence of demonstrable systemic disease. She refused a modified radical mastectomy because she was young and unmarried and said she could not face life without a breast. It is unclear as to whether or not the option of primary radiation therapy was ever offered to her as an alternative. She was, in fact, then treated by an oncologist with the CMF combination of cyclophosphamide (Cytoxan), methotrexate, and 5-fluorouracil, for one year. Three years after the completion of chemotherapy and four years following the lumpectomy, a superficial 1.5-cm. nodule developed on the areola of the right breast which had the appearance of a sebaceous cyst. The entire breast was firm and the axillary examination disclosed nothing remarkable. Under local anesthesia the nodule was excised and was diagnosed as duct-cell carcinoma infiltrating the dermis and subcutaneous tissues of the areola. At this point she agreed to a modified radical mastectomy which was carried out on October 16, 1978. The entire breast was permeated by carcinoma radiating from the 1974 biopsy site into all quadrants and the nipple; 3 of 35 lymph nodes contained metastases. Because of this extensive disease, postoperative radiation therapy, as well as adjuvant chemotherapy with CMF, was administered for an additional year. There is currently no evidence of systemic carcinoma and the patient is determined to undergo breast reconstruction, although this has not been encouraged by her breast surgeon.

Case 2. A 77-year-old widow underwent a biopsy of a small mass in the upper outer quadrant of her left breast on November 1, 1977. A frozen section established the diagnosis of an infiltrating duct-cell carcinoma, and a wide local excision (segmental mastectomy) was carried out. It had been decided preoperatively to perform limited breast surgery, to be followed by primary radiation therapy, because of the patient's age and the presence of very severe obstructive pulmonary disease. In the final pathology report, the malignant lesion was measured as 1.5 cm. in its maximum dimension, and the surgical margins were free of tumor. Work-up included a chest x-ray and bone and liver scans, the results of which were negative. Because lymphatic and vascular invasion was reported by the pathologist, this was interpreted as an indication of the probability of disseminated disease and it was decided that a systemic approach (chemotherapy) should be employed rather than radiotherapy to the breast, which had been planned. CMF was administered but had to be discontinued before one year, owing to patient intolerance. Just under two years later a tumor became apparent in the same area of the breast that had previously been operated on; work-up did not reveal any evidence of metastases. The mass was excised and proved to be recurrent cancer infiltrating the breast parenchyma. The axilla was explored; no enlarged lymph nodes were present, and those that were sampled did not contain metastases. Primary radiation therapy to the breast and adjacent lymph node areas has been carried out.

Results

Both these patients had potentially curable breast cancer at ages 31 and 77, respectively. Although their ultimate fates are as yet unknown, their courses have been marked by persistent and recurrent breast cancer, and treatment has been unnecessarily complicated. Each had specific age-related problems that could have been managed in a more orthodox and generally accepted manner.

The Case 1 patient felt that at only 31 years of age she could not face life with a single breast. Therefore, two options should have been presented to her, that is, either primary radiation therapy or a modified radical mastectomy, which then could have been followed by breast reconstruction at a future date. Had radiotherapy been employed, her breast probably could have remained intact. If a mastectomy had been performed initially she would have been without a breast for only six months to one year at that time. With the treatment she did receive, thus far she has been on chemotherapy for two years and, in addition to radiotherapy, a mastectomy was ultimately required. She has currently been without a breast for two years and now desires reconstructive surgery. Because of both the magnitude of the recurrent cancer present at the time of the mastectomy and of the local tissue changes secondary to the postoperative radiation therapy, not only is breast reconstruction inadvisable but it will be a formidable undertaking as well, necessitating a lattismus dorsi flap. The chemotherapy was very disruptive to the patient's life and, in view of the pathologic findings at the time of the mastectomy, it seems unlikely that it deterred the progression of the malignant cells. Since it was ineffective initially, its value as adjuvant therapy following the mastectomy is also dubious.

The Case 2 patient did not have a mastectomy because her physicians considered a prolonged anesthesia to be unsafe at her age (77). Primary radiotherapy was rejected in favor of chemotherapy, based on the microscopic findings of lymphatic and vascular permeation in the resected breast specimen. Three years later, at age 80, a second operative procedure was required because of recurrent carcinoma in the breast. The patient almost did not survive the second postoperative period because of pulmonary complications. There is still no evidence of systemic metastases. Had radiation therapy been employed initially when she was first treated, a second operation could have been avoided. It is known that chemotherapy is not well tolerated by the elderly and was an unwise choice as a substitute for a proved local modality such as radiation therapy.

Comment

Chemotherapy administered following a modified radical mastectomy has been demonstrated to decrease the incidence of local recurrence and to increase survival in premenopausal patients with breast cancer who have metastatic axillary lymph nodes.[1] Similar results cannot be expected in postmenopausal patients, possibly because of their inability to tolerate the medication.[2] Physicians must not forget that an adjuvant is defined as that which is "administered to enhance the effectiveness of a treatment."[3] Systemic chemotherapy is not a substitute for adequate local therapy such as that which can be accomplished with a modified radical mastectomy or primary radiaton therapy.[4]

When a modified radical mastectomy is performed, the primary tumor is adequately treated by total breast removal and the status of the axillary lymph nodes is determined by an axillary dissection. The best results utilizing radiation therapy are achieved by initially performing a wide excision of the primary tumor and by procuring a sample of the axillary lymph nodes to determine whether or not metastases are present.[5]

Patients who have axillary lymph node metastases are at a high risk for the development of recurrent and metastatic breast cancer.[6] In this setting, systemic chemotherapy is employed to eradicate blood-borne micrometastases which must certainly be present in those individuals in whom disease ultimately recurs. In clinical trials the statistical effectiveness of adjuvant chemotherapy has been proved in large numbers of women, but there is no way of knowing whether or not the agents used are potent against the cancer cells in an individual patient.

Conclusion

Successful treatment of a breast cancer requires eradication of the primary tumor so that adequate local control is obtained. This can best be accomplished by performing a modified radical mastectomy. Breast reconstruction is one approach that provides normal mammary symmetry following a mastectomy. For those patients who have a strong aversion to a mastectomy, or who should not have prolonged anesthesia, primary radiation therapy is an excellent alternative. Until in vitro sensitivity testing is a reality, chemotherapy cannot be used as an alternative to surgery or primary radiation therapy.

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Depression management crucial for cancer patients

At least half the depression experienced by cancer sufferers is related to social and emotional adjustment, says Richard J. Goldberg, M.D., in the July 24/31 issue of the Journal of the American Medical Association.

In past years, the general view was that all cancer patients suffered the same inevitable depression. However, recent increased collaboration between psychiatrists and oncologists has established effective methods for treating depression.

Depression is characterized by mood disturbances, crying spells, social withdrawal, noncompliance with medical personnel, irritability, and the appearance of functioning at a lower level than a patient's physical status warrants. Moderate to severe depression has been discovered in almost 50 percent of hospitalized cancer patients referred for psychiatric study.

Depression symptoms can be caused by physical problems such as fatigue, sleep impairment, and hunger, or by minor psychological disturbances like guilt, indecisiveness, and reduced feelings of self-worth. These factors do not fall into the same category of severity as true depression. For the cancer patient, depression can be caused by medical disorders and psychosocial factors, all of which can be brought under control.

Medical disorders, such as brain tumors, nutritional deficiencies, and the by-products of chemotherapy and steroid treatment often produce feelings of weakness, fatigue, depression, euphoria, and even psychosis. The proper change in therapy or medical attention often removes the symptoms. Actual disease also produces depression-like symptoms. The most common neurological complication has to do with the removal of the fatty sheath around certain nerves. Proper treatment can also alleviate this condition.

While medical factors can only be handled by the primary physicians, the psychosocial factors of depression can be faced by all concerned family members and friends. Since the main burden falls on the spouse and family, the physician should see them as a powerful ally and help to educate them and offer guidance.

A properly educated family can ease the alienation that the patient feels as friends and associates begin to withdraw. It is important that the family's problems due to the disease be taken into account and that all concerned members learn to live with the patient's condition.

The advanced patient often experiences a loss of control over his life. It is important that the family support team be able to offer him some duty, such as budgeting the finances, that gives him a feeling of worth.

Physical damage and mutilation due to disease and surgery are a great source of depression. Family members should help the patient deal honestly with his feelings rather than saying, "Cheer up, you'll get over it," is an important step in grief resolution.

Professional treatment may be necessary for dealing with the suicidal patient and the one for whom no other treatment works. Many patients consider suicide a resolution to their problems. Direct questioning often fails to produce the desired results, so it may be necessary to undergo a series of indirect questions to determine the depth of their depression. And in the case where no other treatment works, antidepressant drugs can be used to alleviate the condition.

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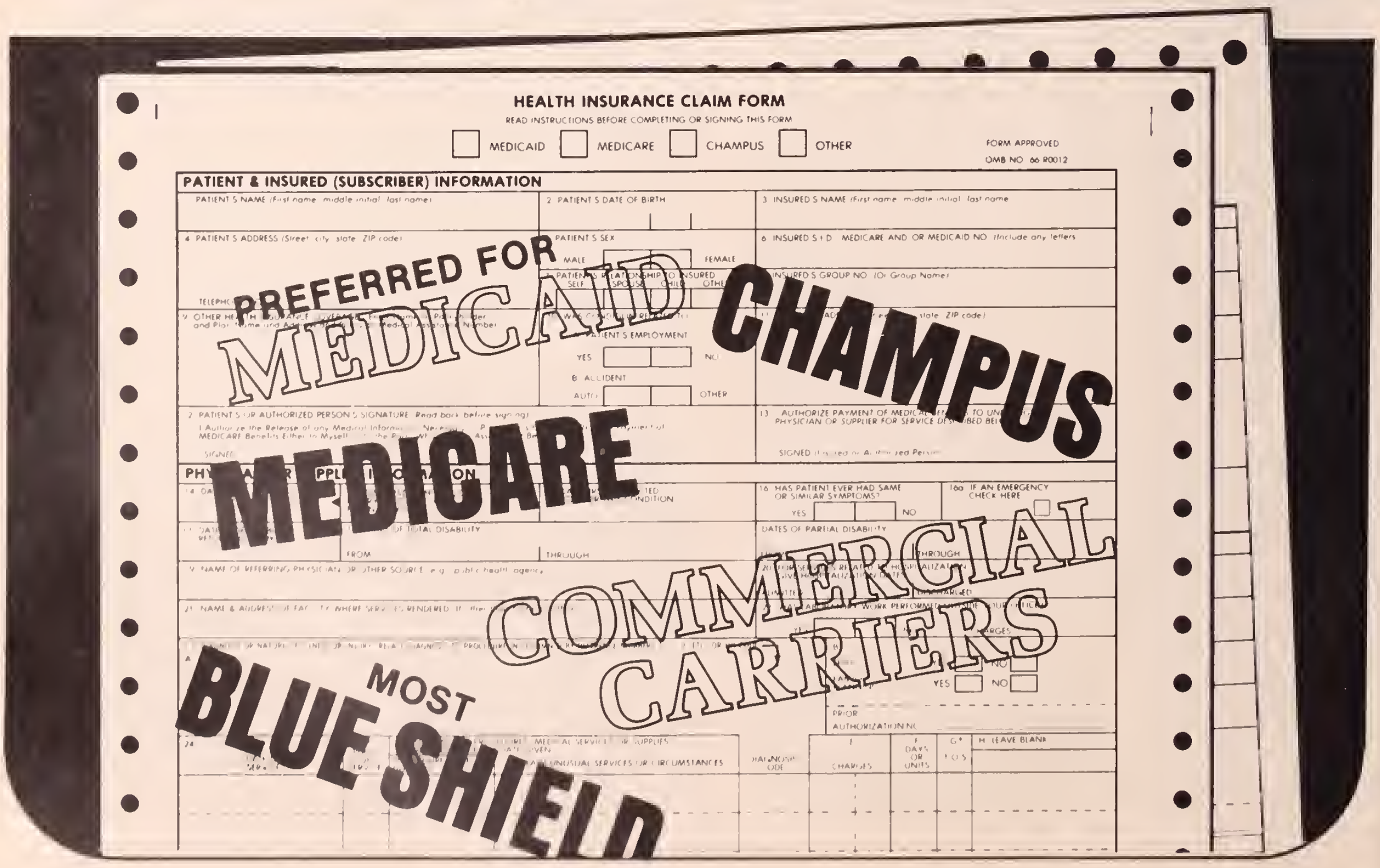
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PATIENT & INSURED (SUBSCRIBER) INFORMATION

Electrocardiograms of the Month

Montefiore Hospital and Medical Center
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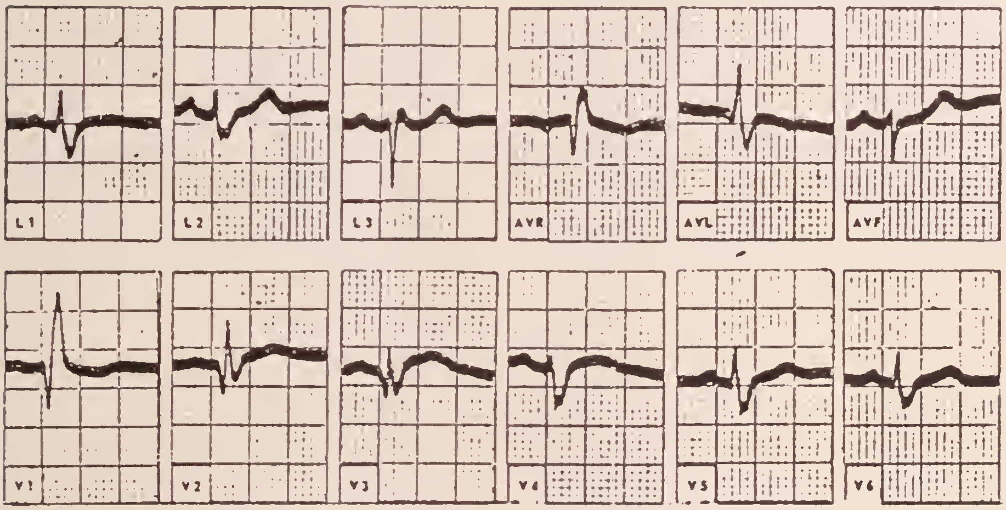
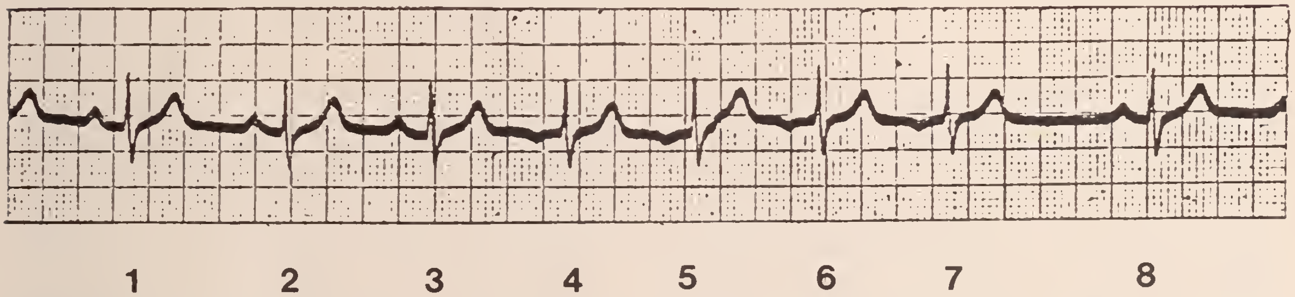


QUESTION 327. This patient was a 75-year-old man with syncope. There was no cardiac history. What is the interpretation of the electrocardiogram?



QUESTION 328: This patient is a 41-year-old woman with no history of cardiac symptoms or disease. What is the rhythm?

Electrocardiograms of the Month

ELUCIDATION

Question 327. The rhythm is regular sinus. The P-R interval measures 0.20 second and the QRS duration is 0.14 second. The mean electrical axis of the initial 0.06 second in the frontal plane is approximately −30°, borderline for left anterior fascicular block. In leads 1, aVL, and V_6 there are broad, slurred S waves and in V_1 a terminal slurred R wave indicating right bundle branch block. When right bundle branch block is associated with left anterior fascicular block, bifascicular block is present. The diagnosis is not definite in this case because the mean electrical axis is borderline.

There are broad Q waves in V_2 and V_3 and poor R wave progression to V_5. These findings are diagnostic of anteroseptal myocardial infarction. Though the infarct appears "old" because of the absence of S-T and T wave changes, a definite diagnosis of "old" myocardial infarction can only be made by clinical history and serial electrocardiograms. In a patient with bifascicular block who gives a history of syncope, a permanent cardiac pacemaker is usually inserted if no other source of syncope can be elicited.

Question 328. The rhythm is sinus in beats 1–3 with a rate of 73 per minute. Beats 4 to 7 are preceded by inverted P waves at a rate of approximately 82: the P-R interval is unchanged. Sinus rhythm resumes with beat 8. The transient inversion of the P wave indicates the intrinsic pacemaker of the heart has shifted from the sinus node to an ectopic atrial focus. This shifting atrial pacemaker is a benign arrhythmia which is usually not accompanied by symptoms and does not require therapy. It often is present in patients with no apparent heart disease and has no ominous implications.

Most physicians are conservative in prescribing tranquilizers

Most physicians are "staunchly conservative" in handing out minor tranquilizers to their anxious patients, says a report in the July 3 Journal of the American Medical Association.

In fact, two thirds of Texas physicians interviewed in a recent survey said they could practice medicine quite well without using minor tranquilizers at all. Only 6 percent of physicians in the survey felt that prescribing of minor tranquilizers is the most effective means of addressing persistent anxiety.

Office counseling is the most effective means of managing anxiety, most physicians say, but almost two thirds believe they did not receive sufficient training in this phase of medicine.

The survey dealt particularly with the family of tranquilizers known as benzodiazepines. Valium is the best known of this group.

The survey was prompted by the TMA (Texas Medical Association's) Committee on Drug and Alcohol Abuse and was carried out by Carl D. Chambers, Ph.D., of Ohio University, Athens, Ohio. Those interviewed represented a cross section of members of TMA.

The physicians reported that an average of 20 percent of all patients seen during the two weeks previous to the survey claimed significant anxiety as either a primary or secondary complaint. More than half of the physicians felt they rarely had enough time in the course of ordinary office practice to deal with the psychological problems involved.

Most physicians agreed that abuse of the minor tranquilizers was a problem in their communities, but only a few thought this involved their own patients. Some 15 percent of the physicians said they were being asked several times a week for drugs that they believed were for nonmedical uses.

Some 35 percent of prescriptions of Valium are for anxiety. It also is used as a muscle relaxant, to ward off convulsions and for a variety of other ills.

The report appears in the Journal's Medical News Section.

Drug Information*

Questions and Answers

Please comment on the use of piroxicam in patients with arthritis.

Piroxicam is a new NSAID (nonsteroidal anti-inflammatory agent) being investigated by Pfizer, under the trade name Feldene. Piroxicam represents a new class of agents and has no structural similarity to the NSAIDs currently available in the United States.

Ginsberg, Appelboom, and Famaey[1] administered piroxicam 20 mg. once daily to 16 patients suffering from osteoarthritis or rheumatoid arthritis. Patients with osteoarthritis exhibited statistically significant improvement, but, although some patients with rheumatoid arthritis showed improvement, statistical significance was not reached.

Aderounmu, Walker, and Salako[2] administered piroxicam 20 mg. daily to 34 patients with osteoarthritis. Piroxicam produced significant improvement in pain, swelling, and general well being throughout the 12-week study period. The authors concluded that piroxicam is effective for treatment of osteoarthritis.

Abruzzo and co-workers[3] treated 31 osteoarthritic patients with piroxicam or aspirin. These investigators found piroxicam to be significantly more effective than aspirin with fewer side-effects.

Pisko et al.[4] administered piroxicam 20 to 40 mg. daily to 45 patients with rheumatoid arthritis for up to 946 days. Although 13 patients developed gastrointestinal ulcers, possibly due to the higher than recommended dose, the study concluded that it is an effective drug for treating rheumatoid arthritis.

Other investigators have shown piroxicam to compare favorably with other NSAIDs such as indomethacin and phenylbutazone (sold as Butazolidin, Azolid, and others) for the treatment of osteoarthritis and rheumatoid arthritis.[5,6]

Adverse effects occasionally noted with piroxicam therapy included dizziness, gastrointestinal irritation, peptic ulcer disease, dyspepsia, rash, and headache. Drowsiness, tarry stools, flatulence, and facial numbness have also been noted.[7] The number and incidence of effects appear to compare favorably to those observed with agents currently available.[1–4]

In conclusion, piroxicam is a new type of NSAID which appears to be as effective as the agents currently in practice. It has the advantage of a long half-life making once daily dosing possible.

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Please comment on the drug interaction between cimetidine and benzodiazepines.

Cimetidine (sold as Tagamet) is indicated for the short-term (up to eight weeks) treatment of duodenal ulcer, the treatment of pathologic hypersecretory conditions, and prophylaxis of recurrent duodenal ulcer in patients likely to require surgical treatment for it.[1] As cimetidine inhibits microsomal enzyme metabolism, it has the potential to interact with other medications metabolized in the liver.[2]

Desmond and co-workers[3] evaluated chlordiazepoxide (sold as Librium) disposition and elimination in eight normal subjects before and after one week of cimetidine therapy. The authors concluded that, at normal doses, cimetidine severely impairs the elimination of chlordiazepoxide.

Klotz and Reimann[2] administered cimetidine and diazepam (sold as Valium) to six volunteers. These workers demonstrated delayed diazepam clearance when cimetidine was administered. In addition, five of the six patients exhibited a much greater sedative effect than would normally be expected.

Patwardhan et al.[4] studied the elimination of lorazepam (sold as Ativan) and oxazepam (sold as Serax) in eight normal volunteers previously treated for seven days with "therapeutic doses" of cimetidine. No impairment of lorazepam or oxazepam elimination was noted.

In conclusion, it appears that cimetidine may delay elimination and prolong the pharmacologic effects of those benzodiazepines which are metabolized in the liver. As oxazepam and lorazepam are not metabolized in the liver and thus may not be affected by cimetidine, they may become benzodiazepines of choice in patients receiving concurrent cimetidine therapy.

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* This column is prepared by the International Pharmaceutic Drug Information Center (IDIC) affiliated with the Arnold and Marie Schwartz College of Pharmacy and Health Sciences of Long Island University, 81 DeKalb Avenue, Brooklyn, N.Y. 11201. The Director is Jack M. Rosenberg, Pharm.D, Ph.D, Associate Professor Clinical Pharmacy. The Consultant is Walter A. Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College.

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Women physicians find worst hurdles after graduation

More women than ever are entering medical school. But, after graduation, they're finding that the coveted degree is no guarantee of professional or financial success.

Subtle barriers to "professional socialization" are the latest form of discrimination against women physicians, says Carlotta M. Rinke, M.D., writing in the Journal of the American Medical Association (June 19). "Nothing at all has been gained" if young women physicians can't participate in professional activities and claim the academic and financial rewards they deserve, says Dr. Rinke.

Professional socialization consists of learning roles, values, responsibilities, and attitudes considered important and appropriate to a profession. Successful professional socialization results in acquiring a positive self-image of competence and acceptance by peers, she says.

Women physicians are finding many of the traditional routes to professional socialization closed to them, Dr. Rinke claims. They tend to be excluded from the informal, fraternity-like network of male physicians through which contacts are made and information is exchanged. This hampers their ability to operate in the power structure of academic and private medicine, ultimately limiting their upward mobility and incomes.

Women physicians also suffer an identity crisis when they attempt to reconcile their womanhood with the traditional masculine stereotype of a medical practitioner: assertive, ambitious, independent, and dominant. When a woman physician acts in this manner, according to Dr. Rinke, she runs the risk of being called a "bitch" or a "castrating female."

Lack of acceptance by male physicians also can stunt the growth of a woman physician's professional identity. Dr. Rinke cites studies revealing that as many as two thirds of practicing male physicians do not accept women as peers.

Compounding these problems are the lack of female role models in academic and private medicine and an ironic prejudice among women physicians that makes them devalue each other's professional competence. This occurs at a time when women could benefit from supporting each other and sharing their common experiences.

Also, says Dr. Rinke, it is still enormously difficult for women physicians to interrupt their professional lives for childbearing without having to drop out of competition for the top careers in medicine.

Only in fully recognizing and dealing with all these obstacles, Dr. Rinke warns, "will the medical profession really tap the full potential of their women members."

Radiologic Problem of the Month

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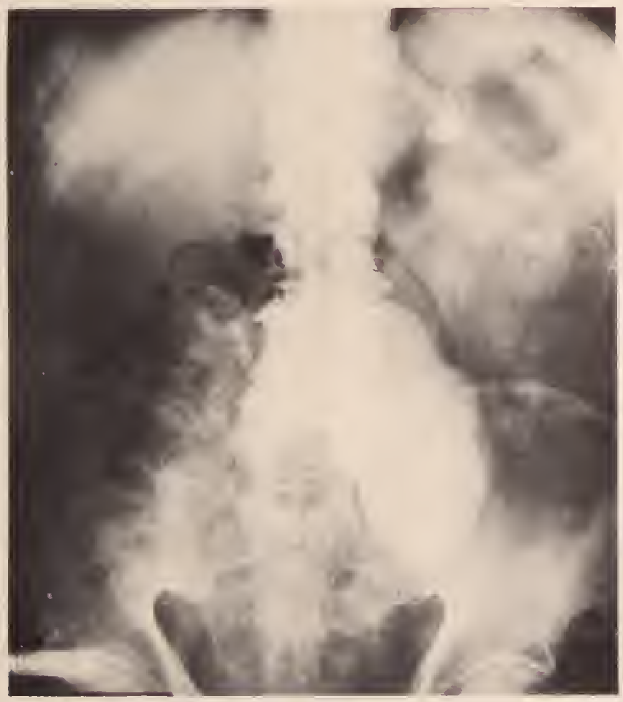
Abnormal Abdominal Density



Radiograph of a 57-year-old man complaining of abdominal discomfort of recent onset.

Elucidation

Anteroposterior view of the abdomen reveals an odd density overlying the midportion of the abdomen. The shape, contour, and size simulate a male genital structure and, yet, the location is strange. Further search indicates this opacity to be located in or over the abdominal wall; its outer walls are well-defined with atmospheric air. Any structure that overlies the body has well-defined walls on radiographs when it is located over the chest or abdomen, for example a breast. This abnormal density does not silhouette with any of the intra-abdominal structures. Multiple wire sutures are present in the left upper quadrant indicative of previous abdominal surgery. The left side of the colon is not outlined with its contents, while the right side of the colon is filled with gas and fecal material up to the point of the abnormal density. Hence, by critical analysis of the radiologic findings, the conclusion could be drawn that the patient has an end-loop transverse colostomy, and that this is a classic radiologic presentation of "prolapse" of the colon at the anastomotic site.

The number of "end" and "loop" colostomies performed in any major medical center is almost half the number of colonic operations.

Most colostomies are simple and uncomplicated surgical procedures. With the present-day techniques and skills available, complications from faulty surgery are extremely rare. These can result from various factors, and are more often encountered in a younger age group of patients. Prolapse at the colostomy site occurs as a loose segment of bowel pushes out through the colostomy opening.[1–3] When the opening made for the colostomy site (supposed to admit not more than two fingers[3]) proves too large to fit the stump of bowel brought out for attachment, prolapse may take place.

Other complications of colostomy include stenosis, retraction, paracolostomy hernia, obstruction, pericolic abscess, and ischemic necrosis.[1–3]

The incidence of postcolostomy complications varies from 21.7[3] to 11 percent,[1] and it is decreasing at the present time. Of all the complications, prolapse is the most common and the incidence may go up to 25 percent. It is well recognized that the rate of complications is high when the colostomy is in the exploratory wound.

Prolapse, as a complication to colostomy, may be prevented by freeing the omentum from the transverse colon before exteriorization. Surgical intervention is necessary to rectify the condition once the complication takes place.

In the diagnosis of prolapse, simple inspection of the colostomy site is enough to recognize the complication. However, if unaware of the history, an inexperienced radiologist may consider other entities such as abdominal wall masses, umbilical or ventral hernia, and even intra-abdominal mass lesions, particularly when an abdominal film is encountered without any accompanying history.

Diagnosis

Prolapse of colon at the colostomy site

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AMA examines federal regulation of cancer-causing agents

Is there an upsurge in the incidence of cancer in this country that correlates with increased pollution and other contaminants in the environment?

Not according to any definitive epidemiological studies thus far, says a report by the AMA Council on Scientific Affairs published in the July 17 issue of the Journal of the American Medical Association.

The report states that environmental exposure does account for certain types of cancer. For example, the well-established relationship of lung cancer to exposure to asbestos fiber or the correlation that seems to be emerging between intestinal cancer and diet. But so far there has been no conclusive evidence that our environment potentiates the risk of cancer.

There is no dispute over whether federal regulations are needed to control true carcinogens, "but the underlying premises and the proposed mechanisms of such regulation need to be carefully considered and, in some instances, refuted or revised," according to the AMA.

To what extent can federal regulations control suspected carcinogens in the environment?

The regulatory process attempts to identify new substances in the environment that may expose some people to an unacceptable chance for having cancer develop.

"Obviously, it is unethical to conduct prospective studies in man, so animal experimentation has been accepted as the best alternative, with the qualified assumption that the animal data might predict human experience," the report states.

However, the Council points out several deficiencies in using animals in testing carcinogens and then applying the results of that testing to humans. The original goal in animal testing was to study the mechanism of the development of cancer rather than to assess real-life risk. Animal models were developed that would maximize the possibility of cancer and shorten the time for its development, using the maximum tolerated doses of carcinogens in those species. Testing also maintains exposure for the lifetimes of more than one generation of animals and prescribes the feeding of a test substance, even though the usual mode of entry might be through skin absorption.

"Further bias is introduced by prescribing 'nearly toxic' or 'maximally tolerated' doses of the test substance, that is, doses that potentially overload those metabolic pathways that might influence the development of a tumor. Such problems are generally conceded in the scientific presentation of data, but they are often ignored when recommendations are made for the test procedure and in the later determination of what constitutes a permissible dose for humans," the report says.

"Moreover, a testing agent can metabolize differently in diverse species and even in strains of mice. Thus, a substance can be carcinogenic for certain organs in one species but relatively harmless in other organs or in other species."

The federal government's NTP (National Toxicology Program) has the authority for assessing cancer risks. (The program is comprised of representatives of the Food and Drug Administration, National Institutes of Health, National Cancer Institute, National Institute of Environmental Health Sciences, National Institute of Occupational Safety and Health, Environmental Protection Agency, Consumer Product Safety Commission, Occupational Health and Safety Administration, and the Centers for Disease Control.)

It has been suggested that the program carry out its decision-making process in two stages: stage I is to be a scientific estimate of the highest tolerated (safe) level allowable for a suspected carcinogen, while stage II, the sociopolitical decision, would set the margin of safety and incorporate considerations of cost, benefit, social impact, and feasibility of control. The NTP, buttressed as needed by various extramural scientific committees, may be capable of carrying out the first stage of the process.

However, the AMA's position has been that the scientific and regulatory decisions should be made by separate bodies, not under one program, and that a scientific panel of experts, independent of the regulatory agencies, should be convened to review and comment on the scientific decisions. Those decisions should be exposed to broad peer review within the scientific community, preferably through publication in peer-reviewed journals, with sufficient time to allow for comment.

The AMA Council concludes that:

(1) even though such carcinogens as asbestos and chromates have been identified in the workplace, there is no definitive epidemiologic evidence that the United States has experienced an overall increase in the incidence of cancer related to high levels of pollutants or contaminants in the environment;

(2) much more research relating the development of cancer in animals to a parallel development in humans is needed before that relationship can be used to mandate regulating of substances in the human environment;

(3) the AMA should continue to encourage federal regulatory agencies to use an independent review process for full scientific assessment—one that will objectively consider experimental biases and define the limits of testing accuracy before a formal proposal is made to regulate a potential carcinogen; and

(4) the AMA should advise federal regulatory agencies of the importance of providing a comment period of at least 90 days after the proposal of a regulation, so that there may be in-depth peer review of the proposed policy or rule.

Ophthalmia Neonatorum Caused by Penicillin-Resistant *Branhamella Catarrhalis*

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Branhamella catarrhalis, formerly *Neisseria catarrhalis*, is part of the normal commensal flora of the upper respiratory and female genital tracts. The organism has been regarded as nonpathogenic except in rare instances, when it has been associated with pneumonia,[1] otitis media,[2] sinusitis,[3] septicemia,[4] endocarditis[5,6] and meningitis.[7] There has been one reported case of ophthalmia neonatorum caused by *B. catarrhalis*, which was sensitive to penicillin.[8] This article describes the first reported case of ophthalmia neonatorum caused by penicillin-resistant *B. catarrhalis* in a child with an apparently normal immune defense system, although this organism has previously been reported in immunologically compromised hosts.[1,4]

Case report

A two and one-half-month-old male was admitted to Lincoln Medical and Mental Health Center with a three-day history of coryza and cough, and with a diagnosis of possible pneumonia. The admitting physician on examination also observed a yellow eye discharge. Child was born of full-term normal delivery with birth weight of 8 pounds, 6 ounces. The postnatal period was uneventful. Growth and developmental milestones were appropriate for the age.

Physical examination revealed a well-developed and nourished child with weight of 12 pounds, 3 ounces. The child was not in any distress. There was yellowish discharge from both eyes. There was no other focus of infection and rest of the physical examination disclosed nothing remarkable.

The complete blood count showed hematocrit 30.5, the white blood cell count 16,100 per cubic millimeter, with 36 segmented neutrophils, 9 band forms, 43 lymphocytes, and 11 monocytes. The chest roentgenogram revealed no infiltrate and was positive for thymic shadow of normal size. Gram's stain of the eye discharge revealed extra- and intracellular gram-negative diplococci and many polymorphonuclear leukocytes. Ophthalmic sulfisoxazole (Gantrasin) was prescribed. Eye discharge and blood were sent for culture.

Two days later, the laboratory reported heavy growth on Transgrow medium (Scott Laboratories, Inc.) of a gram-negative, oxidase-positive diplococcus. A presumptive diagnosis of gonococcal ophthalmia neonatorum was made, and parenteral penicillin G was substituted for the ophthalmic sulfisoxazole. On the same day, the organism was noted not to react with *Neisseria gonorrhoeae* fluorescein conjugated antibody (Difco), and it was subsequently identified biochemically as *Branhamella catarrhalis*. It did not ferment dextrose, maltose, or sucrose, but reduced nitrate and grew on trypticase soy agar at room temperature. The isolate grew on Thayer-Martin, Transgrow, and modified NYC (New York City) media. The reactions were confirmed by the City of New York Department of Health, Bureau of Laboratories.

Susceptibility testing by the Bauer-Kirby method gave a zone of 12 mm. with penicillin and 22 mm. with ampicillin. This was interpreted as resistant to penicillin and sensitive to ampicillin using the guideline for *N. gonorrhoeae* (Cumitech 6). These results were also confirmed by City of New York Department of Health. Beta-lactamase was detected by using Beta-lactam reagent disk (Marion Scientific). The minimum inhibitory concentration for penicillin and ampicillin was 100 micrograms per milliliter (City of New York Department of Health).

Sensitivity of the isolate to silver nitrate ophthalmic solution was determined by impregnating a blank disk with the recommended dosage, two drops. A zone size of 15 mm. was obtained.

Treatment with polymyxin B-neomycin-gramicidin (Neosporin ophthalmic solution) was initiated on receipt of the report of *B. catarrhalis* growing on Transgrow. By the tenth hospital day, three days after initiation of treatment, the eye discharge cleared. Treatment was continued following discharge on the fourteenth hospital day, and on follow-up examination three weeks later, the eyes were normal. The child subsequently has had normal growth and development. His response to immunization with initial two doses of DPT (diphtheria, pertussis, tetanus) and oral polio vaccine was normal. He was free of infection when he was lost to follow-up at 12 months of age.

Comment

If the diagnosis of this case had been based only on Gram's stain evidence, it would have been misdiagnosed as gonococcal ophthalmia neonatorum which has obvious social and psychologic implications. The importance of determining the biochemical profile of gram-negative diplococci growing on selective medium is demonstrated by this case.

B. catarrhalis is not listed as an etiologic agent of ophthalmia neonatorum.[9] It should be noted that the eye culture was sent to the laboratory on Transgrow. Therefore the possibility that other organisms which may have been present in the exudate were inhibited by the Transgrow cannot be excluded. However, *B. catarrhalis* was the only organism isolated from this specimen and when it was transferred to nonselected medium, it was still in pure culture.

Although this is the first reported case of ophthalmia neonatorum caused by penicillin-resistant *B. catarrhalis*, Y. C. Faur, M.D.,[10] has isolated on blood agar two such strains from infected eyes of children. The strains isolated by the City of New York Health Department, Bureau of Laboratories, grew on New York City medium, which is a selective medium for the primary isolation of pathogenic *Neisseria*. *B. catarrhalis* is commonly referred to as one of the saprophytic *Neisseria*, even though it is no longer classified as a member of the *Neisseria* genus[11] and therefore should not grow on selective media such as Transgrow, Thayer-Martin, or NYC. This isolate is apparently resistant to antibiotics that are in Transgrow, Thayer-Martin, and modified NYC media.

The sensitivity pattern of the isolate being reported here was determined because the organism grew on Thayer-Martin medium. It is of interest to note the difference in the susceptibility results obtained for ampicillin by the disk diffusion method and by tube dilution method.

Beta-lactamase production in commensal *Neisseriaceae*, namely *Neisseria perflava*, has been reported but the enzyme is different from the plasmid-mediated and transferable enzyme found in *N. gonorrhoeae* and *Haemophilus influenzae*.[12] The character of the penicillinase activity of *B. catarrhalis* is not known and the accumulation of such isolates for further study is dependent on the awareness of the laboratory to test isolated strains exhibiting unusual growth patterns.

The epidemiologic factors relative to the source and route of transmission of this isolate of *B. catarrhalis* are unknown. The cervical and throat cultures of the infant's mother were negative for the organism, and cultures from other sites of both the mother and infant were not performed.

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Adenocarcinoma of Vagina

Combined surgery and radiation with preservation of genital function

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The conventional therapies for malignant conditions of the vagina inevitably lead to loss of ovarian and endometrial function and often to compromise of vaginal function. This is true whether treatment is with surgery or radiation. One exception, however, is the surgical management of cancers arising very low in the vagina which may occasionally be treated with partial vaginectomy.

We report here a patient treated at Memorial Hospital, New York City, by external and fractionated intravaginal radiation given after a surgical procedure that consisted of local excision of tumor, pretreatment laparotomy, and lateral ovarian transposition. The treatment plan was based on the observations that there was no evidence of local or distant spread and that the ovaries could be moved to positions where radiation exposure would not terminate their activity. The patient has survived over six years and is without evidence of recurrence.

Case report

An 18-year-old female, gravida 0, para 0, in 1974 consulted an outside gynecologist with a history of intermenstrual vaginal bleeding for a period of six months. On examination, she was found to have a lesion in the anterior vaginal wall which on biopsy was reported as clear cell adenocarcinoma. The patient gave a history suggestive, but not confirmable, of exposure in utero to DES (diethylstilbestrol). She was admitted to Memorial Hospital on December 8, 1974, and review of the submitted slides confirmed the diagnosis of clear cell adenocarcinoma.

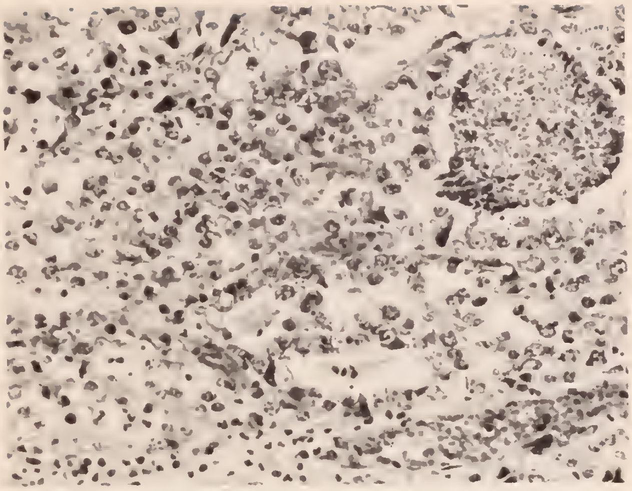
FIGURE 1. Photomicrograph of biopsy from vaginal lesion showing clear cell adenocarcinoma.

Work-up included SMA-12 (sequential multiple analysis), chest x-ray, intravenous pyelogram, and barium enema. All findings were within normal limits. Results of serology (VDRL) were negative. On December 12, 1974, she underwent an examination under anesthesia; cystoscopy, proctoscopy, local excision of the clear cell adenocarcinoma of the vagina, exploratory laparotomy, exploration of the para-aortic and pelvic retroperitoneal spaces, bilateral ovarian transposition, and appendectomy were performed. Pelvic examination revealed a 2 by 2 by 2 cm. lesion in the left anterior vaginal wall in the middle third of the vagina. The cervix showed a small central zone of ectrophy. The uterus was normal to palpation; no adnexal masses were palpated. Results of cystoscopy and proctoscopy were normal. Multiple frozen sections of para-aortic and pelvic nodes revealed no tumor. This was subsequently confirmed on paraffin slides. The ovaries were separated from their attachments to the uterus and fallopian tubes and then attached to the anterolateral abdominal wall near the anterior superior iliac spine on each side, as previously described.[1] The histology of the excised lesion is shown in Figure 1. Transposed ovaries were marked by placement of hemoclips.

Postoperative course was uneventful and she was started on external pelvic radiation treatments.

Radiation treatment. The patient was treated with a 6-mev linear accelerator using a 9 by 16 cm. portal, treating only the lower pelvis. The transposed ovaries were carefully excluded from the treatment portal (Fig. 2). She received 3,776 rads through this portal in 16 treatments from January 6 to February 3, 1975. This dose is radiobiologically equivalent to 4,000 rads (TDF = 66). This was followed by three intravaginal applications with a remote afterloader using oscillating cobalt-60 sources and delivering 700 rads at 0.5 cm. from the surface of the applicator in each treatment.[2] The length of oscillation was fixed at 5 cm. The patient completed

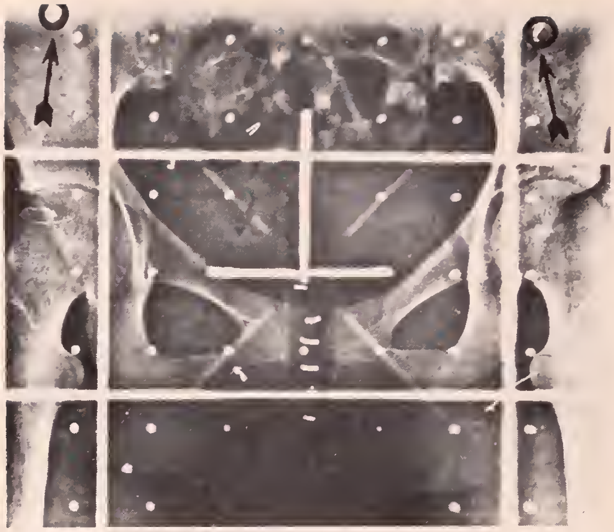

FIGURE 2. External beam pelvic portal. Arrows indicate position of transposed ovaries.

all radiation therapy on January 30, 1976. At that time her examination disclosed nothing remarkable. The scattered dose to the transposed ovaries, although negligible, was carefully monitored using thermalucent dosimeters that recorded 50 rads total dose to each ovary.

Subsequent clinical course. She has been followed regularly since completion of therapy. Her menstrual periods resumed regularly. Contraception with an intrauterine device was discontinued due to spotting which stopped after the device was removed. In September, 1979, she was readmitted to Memorial Hospital for evaluation of right lower quadrant abdominal pain. The work-up included an intravenous pyelogram the results of which were reported as normal but a pelvic computed tomography scan revealed a large mass within the lower pelvis, principally on the right side, deviating the rectum and the bladder. She underwent examination under anesthesia, including cystoscopy, proctoscopy, and exploratory laparotomy. A right ovarian cystectomy and right salpingectomy were performed and the right fallopian tube, which had undergone abscess formation, was removed. Pathologic examination of the operative specimen revealed acute and chronic salpingitis and a hemorrhagic corpus luteum of the right ovarian cyst. This finding confirmed the fact that she was still ovulating. The peritoneal fluid was negative for malignant cells. She was discharged after an uneventful postoperative course. She was seen in follow-up examination in February, 1981, at which time there was no evidence of recurrent disease. Pelvic examination reveals some shortening and induration of the vagina but the patient denies any problems related to intercourse.

Comment

The unusual characteristics of this patient's tumor and the treatment selected relate to its location, size, and responsiveness to radiation. Radiation therapy in general has less frequently been utilized in the treatment of gynecologic cancers in young females because of the disadvantage of destruction of ovarian function and possible radiation-related complications, such as vaginal stenosis. Fortunately, the intense focus of interest on clear cell adenocarcinoma of the vagina and cervix arising in young women after in utero exposure to DES had made available evidence concerning the histopathology, clinical course, and therapeutic responsiveness of these tumors. Data from the registry of clear cell adenocarcinoma of the genital tract in young females show that the tumors often spread early to pelvic nodes and that they can be cured with either surgery or radiation therapy.[3,4] Wharton et al.[5] have reported excellent results using very limited radiation fields in small vaginal lesions. The approach taken in this patient was based on our consideration of the importance of knowing the status of the pelvic nodes, the minimal doses of ovarian radiation received after their transposition, and the assumption that a combination of local excision and lower radiation dose would diminish the likelihood of vaginal stenosis or other local radiation damage, conditions found in five of the initial eight patients reported by Wharton et al.[5]

This is a rare and anecdotal case, but ovarian and vaginal function have been preserved without compromising the chance for cure. It is controversial whether there is a place for less aggressive radiation therapy treatment preserving ovarian and vaginal function, or does radical therapy have to be employed in all cases, depriving the patient of the function of the ovaries, uterus, and vagina.[6–8]

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Ainhum

Dactylolysis spontanea

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Ainhum, the spontaneous auto-amputation of toes, is a relatively rare disease primarily affecting the dark-skinned races. The process of amputation is the net result of progressive fibrotic groove or fissure formation encircling one or more toes. There is no characteristic inflammatory process; the rate of amputation is highly variable. The disease has been considered by some to be a distinct pathologic entity based on its original description, although other investigators regard ainhum as a clinical manifestation of a variety of diseases based on the fact that fingers as well as toes can exhibit the characteristic findings.

We would like to report a most interesting case that occurred at Kings County Hospital and review the literature of ainhum and ainhum-related syndromes.

Case report

A 38-year-old black male Brazilian immigrant appeared at Kings County Hospital complaining of "a toe falling off." He had no history of syphilis, toxin exposure, leprosy, trauma, diabetes, parasitic diseases, lupus erythematosis, or tuberculosis. He had gone barefoot regularly while in Brazil. His blood pressure was 150/100, and the clinical examination was notable for advanced ainhum of the left fifth and early ainhum of the right fifth toe (Fig. 1). Electrolytes, blood urea nitrogen, glucose, creatinine, erythrocyte sedimentation rate, and complete blood count with differential were all within normal limits and his VDRL was nonreactive. X-rays were taken of each toe. On his return from the radiology suite, it was noted that the ainhum of the left fifth toe had clinically advanced, and over the ensuing several minutes complete bloodless auto-amputation occurred (Fig. 1). The patient was subsequently lost to follow-up. To our knowledge, this case represents the first reported medical observation of the auto-amputation phenomenon of ainhum.

Comment

Although Clark[1] reported a condition affecting the natives of the African Gold coast called "dry gangrene" of the small toes in 1860 and Verneuil[2] described a disease affecting the toes of the Nagos tribe in Brazil in 1863, the first recognized description of ainhum is attributed to Da Silva Lima from Bahia, Brazil in 1867.[3] The term "ainhum" or "ayun" means "saw" or "file" in African Yoruba, or "fissure" in Brazilian Negro patois. Other terms for ainhum include serrar or auijila (Brazil), guduram (West Africa), esola, ombarija (Bantu), sulcha-pakla (India), and banko terende (Sudan). The Greco-Latin term dactylolysis spontanea is the accepted descriptive medical term for the disease.

Ainhum, although classically described and associated with warm, moist climates, has been seen in cooler, dryer regions. The majority of case reports are derived from tropical and subtropical latitudes—Brazil, Panama, India, Polynesia, Africa, Southern Asia, and the West Indies—although over 400 cases have come from the United States. Most of these cases were derived from patients who had lived in the South. Other locations reporting ainhum include U.S.S.R., Canada, Europe, and Great Britian.

The incidence of ainhum has been estimated to be about 2 percent in the dark-skinned population.[4] There is no sex preference although females are often affected at an earlier age than males. The average age is 38 years, with involvement of the fourth and fifth toes in 95 percent of cases.[4,5] Bilaterality occurs in 75 percent of cases.[6,7]

Historically, self-mutilation or the wearing of toe rings was considered to be the cause of ainhum.[8] This theory has been disproved because the disease has occurred in nonring-wearing patients and in those not practicing mutilation. Other proposed causes include infectious agents (Hansen's bacillus,[9] the chigoe *Tunga penetrans*,[10] treponemas,[11] and a variety of fungi[12]), trophoneurosis,[13] arterial contracture,[14] anatomic anomalies,[15] annular scleroderma,[16] endocrine factors,[17] local antigen reaction,[18] hypertension,[19] mechanical factors,[20] and the fibrogenetic tendency of dark-skinned peoples.[21]

It has been suggested by other investigators that ainhum represents a manifestation of a general disease. Particularly, ainhum has been associated with hyperkeratosis palmaris et plantaris,[22] pityriasis rubra pilaris and syringomyelia,[23] diabetes mellitus,[24] sickle cell anemia,[25] and various rare dermatologic diseases.

The clinical manifestations of ainhum can be divided into four stages. The first stage is marked by

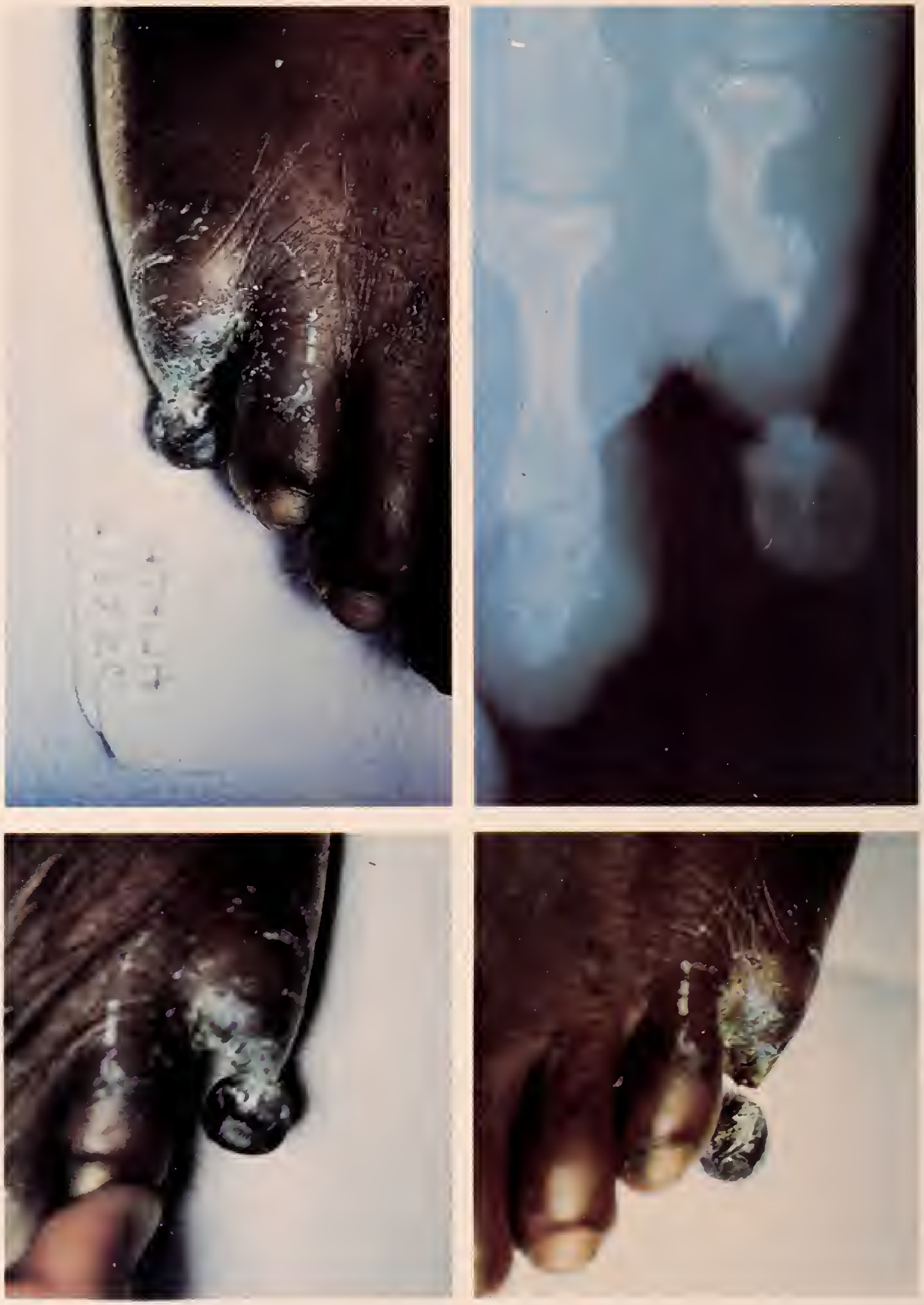

FIGURE 1. Top left: photograph of right foot shows early ainhum. Top right: radiograph of left foot shows advanced ainhum. Lower left: ainhum in left foot is progressing, and after a few minutes (lower right), complete bloodless auto-amputation has occurred.

the formation of a groove or fissure, often in association with a hyperkeratotic lesion (corn or callus), typically in the plantar-digital fold of the involved toe. The fissure or groove slowly encircles the toe and is frequently accompanied by dorsal ulceration and secondary inflammation. This stage is often accompanied by a variable degree of pain.

The second stage is characterized by arterial narrowing with eventual cessation of blood flow. Roentgenographic abnormalities include trabecular and cortical narrowing with bone resorption adjacent to the groove. The toe appears bulbous.

The third state involves separation of the bones at the joint with resultant hypermobility of the digit. Pain often accompanies this stage and it may, at times, be severe. There is loss of voluntary movement of the toe.

The fourth and final state is marked by the bloodless auto-amputation and the toe at the area of constriction which is typically the head of the proximal phalanx or through the proximal interphalangeal joint. The total course of the disease is variable—months to years.

The pathology of ainhum has been well described.[26] There is moderately severe hyperkeratosis, irregular acanthosis, some parakeratoses, and chronic inflammation and fibroses of the subcutaneous tissue. Fibrotic tissue replaces muscle, sweat glands, and blood vessels; neural tissue is unremarkable. Bone undergoes resorption and atrophy, particularly at the site of the groove. Data derived from several pathologic studies question the significance of the constricting band as the cause of ainhum.[26–28]

Diagnosis of ainhum is usually not difficult based on the clinical and radiographic manifestations previously described. The diagnosis may be difficult when the groove is small and radiographic changes have not occurred. There are no pertinent laboratory findings nor are there recognized systemic manifestations of ainhum. History and physical and laboratory data will effectively rule in or out such other differential diagnoses as scleroderma, Raynaud's disease, trauma, leprosy, or infection.

Even though ainhum is a self-limiting disease eventually culminating in auto-amputation, palliative surgical treatment in conjunction with careful hygiene and protection from further infection and trauma has been found to be useful. The surgical treatment of choice is amputation of the involved digit at or proximal to the groove.[29] Modifications include Z-plasty and lysis of the encircling groove, the latter being generally unsuccessful. Local injection therapy for pain and inflammation has been performed with mixed success using corticosteroids and lidocaine.

In summary, a typical case of ainhum is reported with in vivo observation of the fourth stage of the disease process—auto-amputation. A general review of the literature is offered with respect to the etiology, pathology, diagnosis, and treatment.

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Metastatic Bronchogenic Carcinoma

Endoscopically proved remission

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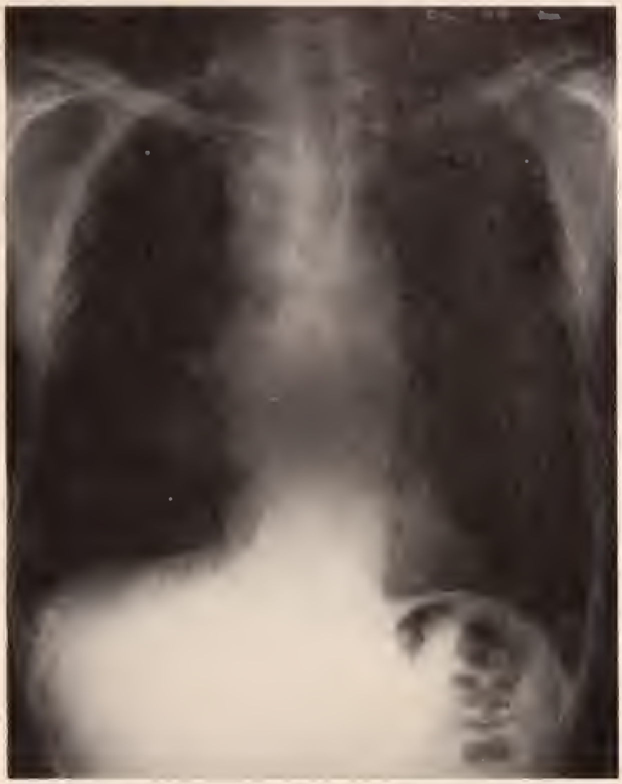

FIGURE 1. Chest x-ray film on admission to hospital.

The diagnosis of metastatic disease involving the stomach has been facilitated by the widespread use of upper gastrointestinal endoscopy.[1,2] While these lesions remain rare, their discovery usually implies an ominous prognosis.[3–5] The following case report represents, to our knowledge, the first reported case of endoscopically-proved remission of a bronchogenic carcinoma metastatic to the stomach.

Case report

A 62-year-old white man was admitted to the hospital with a chief complaint of vomiting blood. He gave a history of hunger pains for three weeks prior to admission. These pains occurred several hours after eating and were relieved by food. The night before admission, he passed black stools and awoke nauseated in the early morning hours to vomit blood. There was no history of previous peptic ulcer disease.

He used acetylsalicylic acid and caffeine (Anacin) infrequently for arthritis, but gave no history of steroid use. The patient smoked one pack of cigarettes per day for 45 years and denied alcohol use. He had lost approximately 20 pounds during a three-month period and gave a history of chronic smoker's cough productive of white sputum. There was no significant past medical history. Findings on physical examination showed the following: patient appeared thin but well developed, anxious but in no acute distress; pulse rate was 96 beats per minute, with postural changes to 110 beats per minute; blood pressure was 116/66 lying down, 100/56 sitting up; lungs demonstrated localized ronchi in the right middle lobe; abdomen was soft and nontender with normal bowel sounds; and liver and spleen were not felt. Findings on rectal examination disclosed melena. The extremities demonstrated 1-plus clubbing. Gastric lavage revealed fresh blood. Laboratory values included hemoglobin 9.7; hematocrit 28; prothrombin time 12.9 with a control of 11.4 sec; partial prothrombin time 21.9 with a control of 30 sec; and blood urea nitrogen 56, with normal electrolytes and liver enzymes. Findings on chest x-ray films showed hilar and mediastinal adenopathy (Fig. 1). An emergency endoscopy was performed which revealed a giant gastric ulcer involving the lesser curvature from the angularis up to the fundus, measuring approximately 10 cm. by 4 cm. (Fig. 2). Multiple biopsies of the rim and base of the ulcer were taken. The histologic report revealed sheets of undifferentiated small cells resembling lymphoid cells infiltrating the gastric mucosa. The patient was treated with 300 mg. of cimetidine (Tagamet) every six hours as well as antacid-antiflatulent (Mylanta) 30 cc. one hour and three hours after meals over the next six weeks. Following stabilization, bronchoscopy revealed narrowing and ulcerations in the intermediate bronchi of the right middle and right lower lobes. Transbronchial biopsy revealed cells identical to those seen on the previous gastric biopsy, and a diagnosis of small-cell undifferentiated carcinoma of the lung was made. Review of the gastric biopsy reclassified the gastric lesion as metastatic

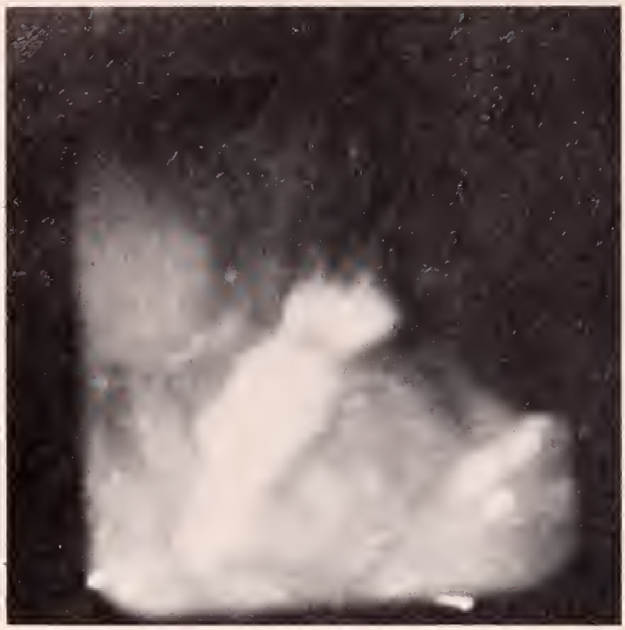

FIGURE 2. Giant gastric ulcer on admission.

small-cell carcinoma. Findings on liver scan, bone scan, and brain scan were negative for metastasis. The patient was started on combination chemotherapy of high-dose induction with cyclophosphamide 1,500 mg. per square meter of body surface (M^2) intravenously on day 1 and day 22; CCNU (1-(2-chloroethyl)-3-(4-cyclohexyl)-1-nitrosourea) 70 mg. per M^2 orally on day 1; methotrexate 15 mg. per M^2 orally biweekly in weeks 2, 3, 5, and 6. Maintenance dose of cyclophosphamide 500 mg. per M^2 intravenously every 3 weeks, CCNU 50 mg. per M^2 orally on day 1 every 6 weeks, and methotrexate 10 mg. per M^2 orally biweekly in weeks 2, 3, 5, and 6 was begun when the patient appeared to be in remission based on chest x-ray film findings (Fig. 3).

Six months after initial treatment the patient was alive and well, with no pulmonary or gastrointestinal complaints. He had gained 12 pounds. Repeat chest x-ray films at four months revealed reduction of the previously reported adenopathy (Fig. 3). Repeat gastroscopy six months after initial treatment revealed no evidence of ulceration or tumor (Fig. 4). Multiple biopsies along the lesser curvature revealed no evidence of tumor.

Comment

Metastatic disease involving the stomach is generally an uncommon and late manifestation of a variety of neoplasms.[3,6,7] Previously reported autopsy series have indicated the incidence of the stomach as the site of metastatic disease at 1.2 percent[8] to 1.7 percent[5] when a primary carcinoma is present. The most common primary tumors have generally been reported as breast, lung, and malignant melanomas.[8,9]

Spiro[10] refers to the fact that carcinoma of the lung usually spreads as a diffuse submucosal growth, which may rarely simulate lymphoma with large multiple ulcerating lesions. However, multiple umbilicated lesions from metastatic bronchogenic carcinoma have been reported.[4] Menuck and Amberg[5] have grouped metastatic gastric lesions into three types: (1) solitary polypoid submucosal masses which may be ulcerated; (2) multiple submucosal masses which may be ulcerated; and (3) linitis plastica.

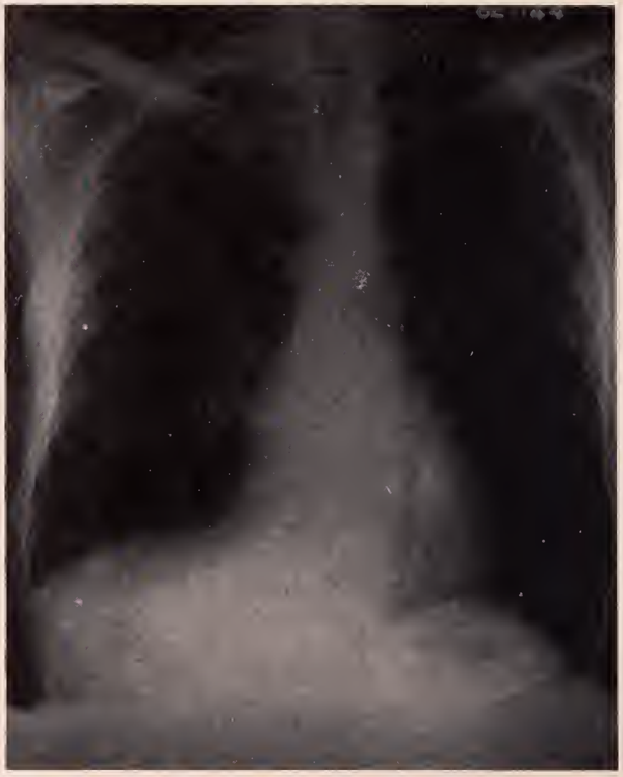

FIGURE 3. Chest x-ray film four months after beginning chemotherapy.

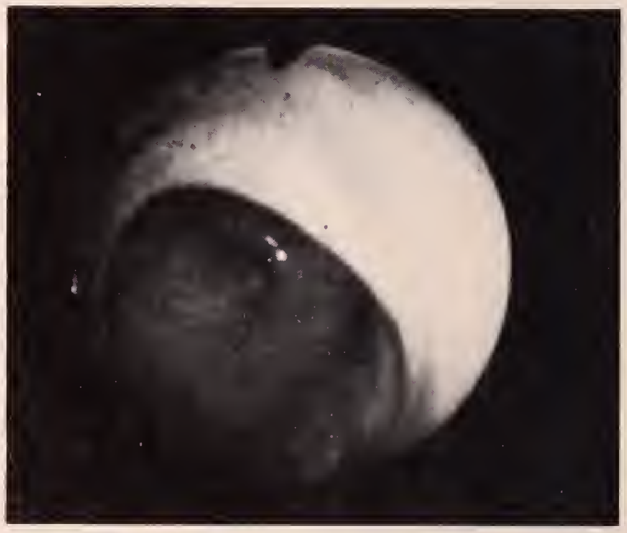

FIGURE 4. Repeat gastroscopy done six months after beginning chemotherapy.

Melanoma, metastatic to the gastric mucosa, classically appears on radiographic and endoscopic examination as umbilicated "bullseye" or "target" lesions.[11,12] Metastatic breast carcinoma most frequently presents as either a linitis plastica or as umbilicated lesions.[13] Recently reported cases of metastatic bronchogenic carcinoma involving the stomach have included a solitary ulcerated mass,[14] multiple umbilicated masses,[4] and a giant gastric ulcer, as presented in this article.

Kibsgaard[2] points out the value of endoscopic diagnosis in primary versus metastatic gastric neoplasm as it relates to therapeutic and prognostic implications.[2] While the number of reported long-term survivors is understandably low, routine follow-up has not included repeat endoscopic examination.[5] As newer, more effective chemotherapeutic protocols are developed, one would hope to improve survival of all patients with metastatic carcinoma. Endoscopy has a proved value as a diagnostic tool in neoplastic disease. We feel that there is a place for routine follow-up endoscopy as a therapeutic yardstick in the management of all patients with metastatic carcinoma involving the stomach.

Summary

The diagnosis of metastatic disease involving the stomach has been facilitated by the widespread use of upper gastrointestinal endoscopy. These lesions are rare and usually imply an ominous prognosis. A 62-year-old man with bronchogenic carcinoma metastatic to the gastric mucosa was treated with effective chemotherapeutic protocol. Endoscopy was a valuable aid in the diagnosis and follow-up care of this patient. As advances in chemotherapy provide us with more long-term survivors with metastatic disease to the stomach, we suggest that endoscopy be part of routine follow-up care.

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Familial Carcinoma of Penis

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The following two case reports feature two brothers, one with proved carcinoma of the penis, and the second with a precancerous lesion, erythroplasia of Queyrat. The possibility of familial occurrence of carcinoma of the penis has been raised.

Case reports

Case 1. Epidermoid carcinoma of the glans penis. A 59-year-old white male was seen in the urology clinic because of dribbling, weakness of urinary stream, and a severe degree of phimosis. There had been no history of venereal disease in the past. On examination, marked phimosis and induration of the glans under the foreskin were noted. Subsequently, the patient underwent circumcision, and a fungating ulcerating lesion was found in the glans beneath which was biopsied. Pathologic finding was reported as epidermoid carcinoma of the foreskin of the glans penis as shown in Figure 1. Subsequently, the patient underwent partial amputation of the penis and biopsy of lymph node from the left groin, which did not show any evidence of metastasis. The patient is alive and well 10 years after his partial penectomy.

Case 2. Precancerous lesion, erythroplasia of Queyrat. The 65-year-old brother of Case 1 was seen at the clinic with an ulcerated lesion of the dorsal part of the foreskin of his penis, of many years' duration. He also complained of occasional discomfort because of phimosis. The patient complained that the lesion had been increasing in size over the past year. There had been no history of venereal disease in the past. Family history was positive for carcinoma of the penis in his brother, as described here. Physical examination revealed an ulcerated lesion on the dorsal surface of the foreskin of the penis, above the glans, about 1 cm. in diameter, circular, with a red velvety surface, and clean-cut ruled margins. No lymphadenopathy was present. Dark-field examination for *Treponema pallidum* and other related urologic studies disclosed all negative findings from the lesion. The patient underwent circumcision and the specimen was carefully examined by the pathologist; it was reported that the lesion was completely removed, and the diagnosis of precancerous erythroplasia of Queyrat was made, as shown in Figure 2.

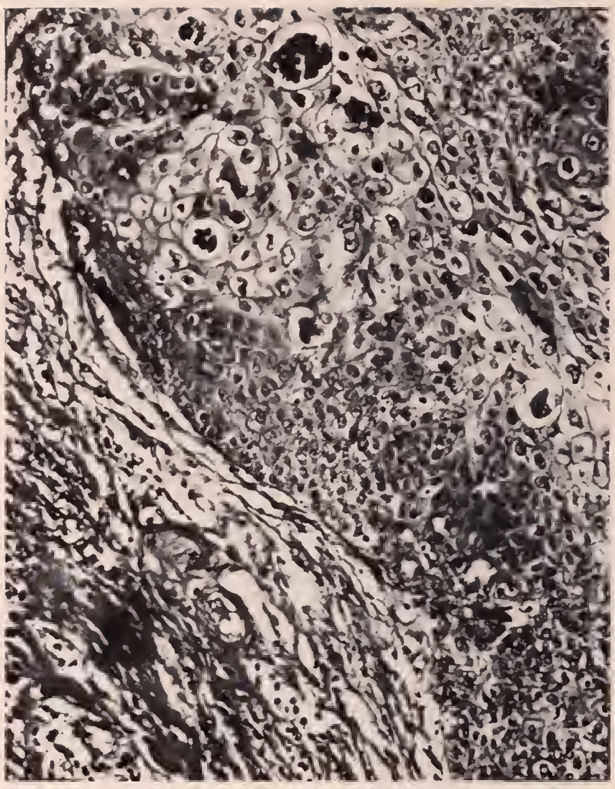

FIGURE 1. Epidermoid carcinoma with mitotic changes of glans penis.

Comment

There are numerous etiologic factors that have been associated with carcinoma of the penis in the literature, which is out of the scope of this discussion. However, these two cases are unusual cases in the sense that both are brothers, one having epidermoid carcinoma of the penis, and another a precancerous lesion, erythroplasia of Queyrat. Common etiologic factors, such as uncircumcised male, poor hygiene, low socioeconomic status, chemicals, chronic irritation, metastasis to the penis, history of trauma, and so forth have been described in the occurrence of carcinoma of the penis.

In reviewing the literature, it seems that the greatest percentile of penile carcinoma occurred in the 65- to 69-year-old age group, and the risk increases steadily with age. There is a lower percentage of patients with penile carcinoma among pro-

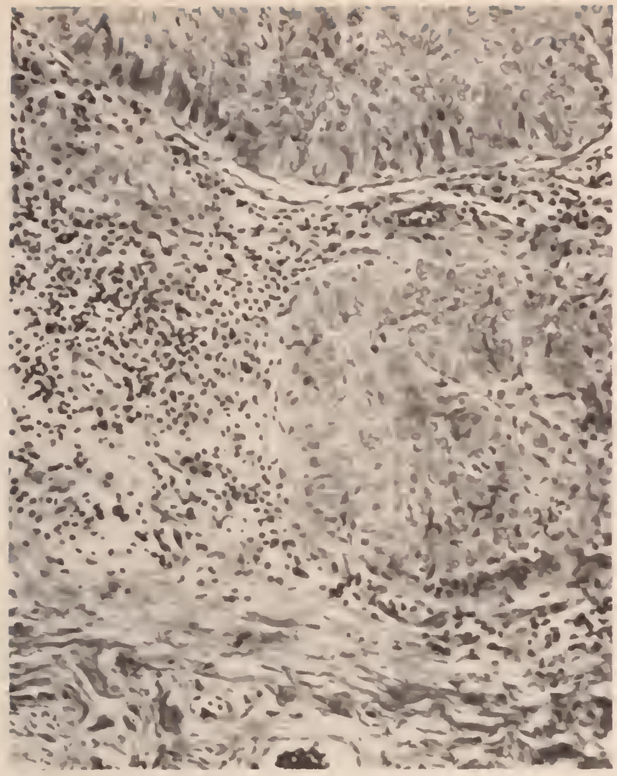

FIGURE 2. Erythroplasia of Queyrat.

fessional workers than among the laborer group. In one city, 700 patients with carcinoma of the penis were evaluated, and, interestingly, epidermoid carcinoma of the cervix uteri occurred in eight wives of patients with penile carcinoma, suggesting a common etiologic factor in the carcinoma of the cervix uteri and the penis. Carcinoma of the penis originates in the prepucal sac. The predominately low-grade squamous carcinoma spreads directly into the glans and shaft, and ultimately to the scrotum and anterior abdominal wall. Blood-stream spread is rare.

Summary

The cases of two brothers, one with proved carcinoma of the penis and the second with precancerous lesion, erythroplasia of Queyrat, have been presented. The literature disclosed no similar cases. Therefore, the possibility of familial origin has been encountered.

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Air leakage in drafty houses poor means of curbing pollution

Uncontrolled air leakage in drafty houses is a poor method of curbing indoor air pollution.

Proper ventilation systems are much better for improving air quality.

These are the conclusions of a communication in the July 10 Journal of the American Medical Association.

Concern has been expressed that the current wave of weather stripping and insulating residences to reduce heat loss and cut down on the zooming fuel bills will result in houses that are so air tight that noxious fumes and gases will no longer escape through the cracks around windows and doors.

Last winter the Journal published a report from a Seattle researcher warning of the hazard, and calling for a halt to further weather stripping and insulating until the air purity problem could be solved.

But, says Charles F. Sepsy, of New York City, there is a better solution, already installed in thousands of residences.

Suitable mechanical ventilation systems are easy to install and relatively inexpensive to operate, Sepsy says. Such systems supply an adequate amount of outdoor air to the occupants. They ensure that the right quality of ventilating air is supplied, and they clean it with filters, reducing the amounts of pollen, dust, and even the organisms that cause Legionnaires disease before the building occupants inhale them.

“A tight building equipped with suitable mechanical ventilation will ensure satisfactory indoor air quality,” he declares.

“Surely a scientific approach to indoor air quality beats the hit-or-miss approach of permitting outside air to seep in around doors and windows, a procedure that among other things may create drafts and discomfort.”

Sepsy is head of the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

Injury to Hepatic Artery and Portal Vein

Suggested management

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Concomitant injury to both the hepatic artery and portal vein is uncommon, and only a few cases have been reported. Most patients with this injury exsanguinate before reaching a hospital. If the patient does survive long enough for bleeding to be controlled, the major problem is restoration of blood flow to the liver. We present a case of combined injury to the hepatic artery and portal vein and suggest a new technique to manage this difficult problem.

Case report

A 19-year-old male was admitted to Beth Israel Medical Center in August, 1979, with a stab wound in the left upper quadrant of the abdomen. His blood pressure was 60 systolic and pulse 100 per minute. He was resuscitated with intravenous fluids prior to laparotomy. A Pringle maneuver was performed to control bleeding from the gastrohepatic ligament. A Kocher maneuver then disclosed a 2 cm. laceration of the inferior vena cava below the renal veins. Hemostasis was maintained with pressure applied to the proximal and distal vena cava and suture repair was performed. The liver was cyanotic, and exploration of the porta hepatis disclosed that the hepatic artery had been transected and both edges were shredded. The transection was at the superior border of the duodenum, and the distal segment was torn in spiral fashion toward the liver. Reconstruction of the hepatic artery was not technically feasible. The portal vein was also lacerated at the superior border of the duodenum. Only a few strands of adventitia connected the posterior surface of the portal vein. The laceration continued inferiorly, and bleeding was noted at the junction of the superior mesenteric and splenic veins (Fig. 1). The distal portal vein at the confluence of these vessels was ligated and oversewn.

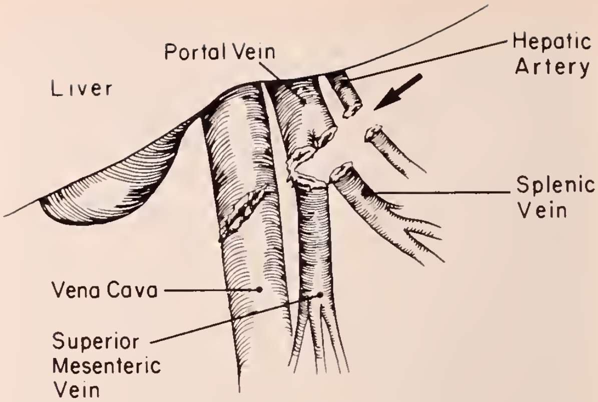

FIGURE 1. Schematic drawing of vascular injuries sustained as a result of stabbing. Arrow indicates probable direction of knife wound.

We elected to restore blood flow to the liver by use of a saphenous vein graft from the aorta to the proximal portal vein (Fig. 2). Iced saline solution was poured on the liver surface, and steroids were given intravenously to ameliorate the effects of the ischemia. Following placement of the vein graft, the liver assumed a normal color indicating satisfactory perfusion. The total liver ischemic time was 90 minutes. At the conclusion of the operation, the patient's blood pressure was 100 systolic. Postoperatively he became acidotic, hypotensive, and expired 18 hours later.

At autopsy, the saphenous vein graft was patent. The liver was normal in size, color, and consistency. Liver histology was normal with only a few inflammatory cells noted on some sections. Cell integrity and architecture were preserved (Fig. 3).

Comment

The earliest reports of combined hepatic artery and portal vein lesions are arteriovenous fistulae related to hepatic artery aneurysms. In 1892, Sachs[1] reported the autopsy of a patient who died of bleeding gastric varices due to an hepatic artery-portal vein fistula. In 1952, Strickler, Lufkin, and Rice[2] reported a patient who had surgery for bleeding esophageal varices and ascites. At autopsy an hepatic-artery aneurysm and fistula to the portal vein were noted. In 1957, Wheeler and Warren[3] reported the successful closure of an hepatic artery-portal vein fistula with upper gastrointestinal bleeding from duodenal varices.

Traumatic injury of both the hepatic artery and portal vein was first reported by Grant, Gliedman, and Deterling in 1958.[4] They described a patient who had undergone operative repair of unidentified

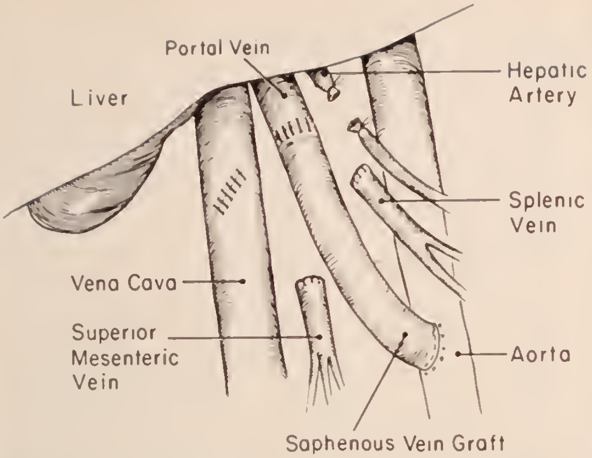

FIGURE 2. Blood flow to liver was restored by a saphenous vein graft from aorta to portal vein.

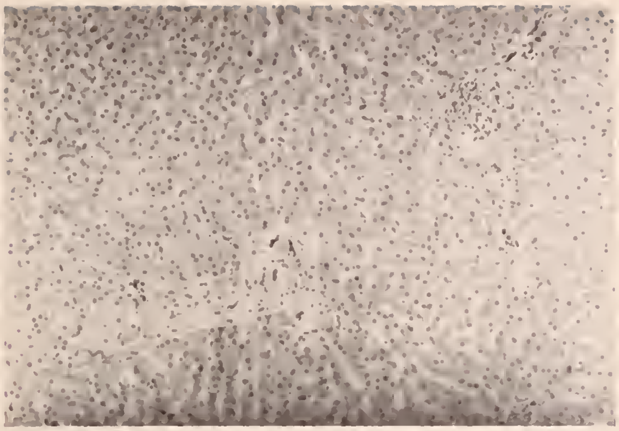

FIGURE 3. Microscopic appearance of liver obtained at postmortem examination. There is minimal round cell infiltration but preservation of cellular integrity and normal architecture (hematoxylin and eosin stain).

bleeding vessels following a gunshot wound of the abdomen. Two months later, because of congestive heart failure and hypertension, the patient underwent surgical closure of an hepatic artery-portal vein fistula and repair of an inferior vena cava-right renal artery fistula. The patient did well postoperatively. Cohen and DeBakey[5] in 1960 reported a patient who had an abdominal bruit three months after an operative procedure for a gunshot wound of the abdomen. Aortography disclosed an hepatic artery-portal vein fistula. Operative closure of the fistula was successful.

Reports of combined injuries of hepatic artery and portal vein come from Burns and Britt,[6] Graham, Mattox, and Beall,[7] Fuller and Anderson,[8] and Busuttil et al.[9] All these patients exsanguinated at surgery. The survivors of vascular injuries to the porta hepatis are few. Those who do survive without appropriate surgery to reconstruct either the hepatic artery or the portal vein or both are likely to develop a fistula and appear later with abdominal pain, a bruit, congestive heart failure, or upper gastrointestinal varices and bleeding.

Isolated hepatic artery injuries are uncommon, and primary repair is recommended if possible. If the artery cannot be sutured satisfactorily, it may be ligated as described by Mays,[10] which is possible only if the portal vein is intact. However, the procedure is not without risk. Lucas and Ledgerwood[11] have described hepatic necrosis in a patient with liver injury treated by hepatic artery ligation. These complications are rare but are potentially lethal so that repair of the hepatic artery should be attempted if feasible.

Portal vein injuries have a mortality rate of 50 to 70 percent in a recent series,[12] with many patients expiring before arrival at a hospital. Early experiments with dogs suggested that portal vein ligation was fatal despite an intact hepatic artery. It was subsequently noted that these dogs expired from hypovolemic shock due to blood pooling in the splanchnic circulation because of inadequate venous collaterals. Child's[13] experiments with monkeys showed that up to 80 percent may survive acute portal vein ligation since primates appear to have the facility for adequate collateralization unlike the canine model. Child then applied his findings with good results to patients, and portal vein ligation has become an acceptable alternative if repair of an injured portal vein is not possible. However, in this group of patients, the hepatic artery must be intact to supply blood flow to the liver. If possible, portal vein injuries should be repaired by lateral suture, resection and reanastomosis, or placement of a bypass graft as suggested by Fish.[14] A recent review by Pachter et al.[12] confirms Child's findings that portal vein ligation is possible if repair cannot be performed. Pachter suggests that patients should be reoperated on 24 hours later to examine for bleeding, liver viability, and the necessity of decompressive portacaval shunt if adequate collateralization is not developing. The dangers of acute portal vein ligation also include nonviability of the bowel and the subsequent development of portal hypertension.

Combined portal vein-hepatic artery injury when primary repair of either is not feasible presents difficult technical problems. Stone[15] suggests that hepatic viability can be restored by placement of a graft from the superior mesenteric vein to the hepatic side of the portal vein. We elected to use a graft from the aorta to the portal vein because of the severe splanchnic vasoconstriction present in this patient and the relative technical ease of the procedure. We also thought that an arterial-to-venous bypass graft would have a better chance of remaining patent than would a veno-venous graft in this hypotensive and hypovolemic patient.

Safe liver ischemia time, with the portal triad compression (Pringle maneuver), is usually considered to be 30 to 60 minutes. This time can be increased with hypothermia and steroids, as evidenced by the ischemia time of 90 minutes necessary for vascular reconstruction in this patient.

This is the only patient in whom this type of repair has been attempted. We believe that an aorto-portal vein bypass graft with hepatic artery ligation will maintain liver blood flow.

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Antinausea drug cleared in birth defects scare

Bendectin, the popular drug that controls nausea in pregnancy, is given a clean bill of health as a possible cause of birth defects in two research reports in the June 12 Journal of the American Medical Association.

Jose F. Cordero, M.D., of the Centers for Disease Control, Atlanta, reports on a study of birth defects among infants over a ten-year period in the Atlanta area.

For the most part, there was no association at all between taking of Bendectin and birth defects, Dr. Cordero says. A slight possible association was found in certain defects, but the association did not prove anything, he reports. The statistical relationship was not significant, the implied risk extremely low even if it exists.

Dr. Cordero adds, however:

“Since it is impossible to prove any agent safe, our study should remind physicians that the potential risk of drugs during pregnancy should be weighed against the potential benefits that they may have.”

Allen A. Mitchell, M.D., Boston, reached similar results in a study of Bendectin use in early pregnancy.

Dr. Mitchell sought reports of two types of birth defects, cleft palates, and heart defects. Interviews with mothers of 98 infants with cleft palate, 221 with cleft lip, and 122 with selected heart defects failed to reveal any association with taking the drug, he says.

Dr. Mitchell is with the Drug Epidemiology Unit, School of Public Health, Boston University School of Medicine, and with Harvard Medical School.

Anhidrotic Ectodermal Dysplasia

Fever in a neonate

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The occurrence of fever in the neonatal period is of concern to the pediatrician, especially since prenatal or postnatal infection is often the cause. Rarely, noninfectious etiologic factors can cause fever. We report a case of neonatal fever due to anhidrotic ectodermal dysplasia.

Case report

A full-term male infant was born to a 24-year-old black female, gravida 2, para 1-0-0-1 following unremarkable pregnancy, labor, and delivery. Apgar scores were 9 and 10 at 1 and 5 minutes. Birth weight was 3,118 Gm., placing the child in the sixtieth percentile; length was 49 cm. and head circumference 34 cm. (both fiftieth percentile). Physical examination, including vital signs, disclosed nothing remarkable and the patient was felt to be normal. The hospital course was uneventful and the patient was circumcised and discharged with mother at three days of age.

At 11 days of age the baby was admitted because of temperature of 101°F. with results of physical examination again unremarkable, except for dark discoloration around the eyes and sparse eyebrows (Fig. 1).

Laboratory evaluation including complete blood count, urine analysis, serum glucose, cerebrospinal fluid cell count, glucose, and protein, chest x-ray, and cultures of spinal fluid, blood, urine, nose and throat, and stool all gave negative results. Sepsis was suspected clinically, and the infant was treated for 10 days with penicillin and gentamicin. After one week of the therapy, the fever continued, and a repeat chest x-ray demonstrated a right upper lobe pneumonia. The antibiotics were changed to nafcillin

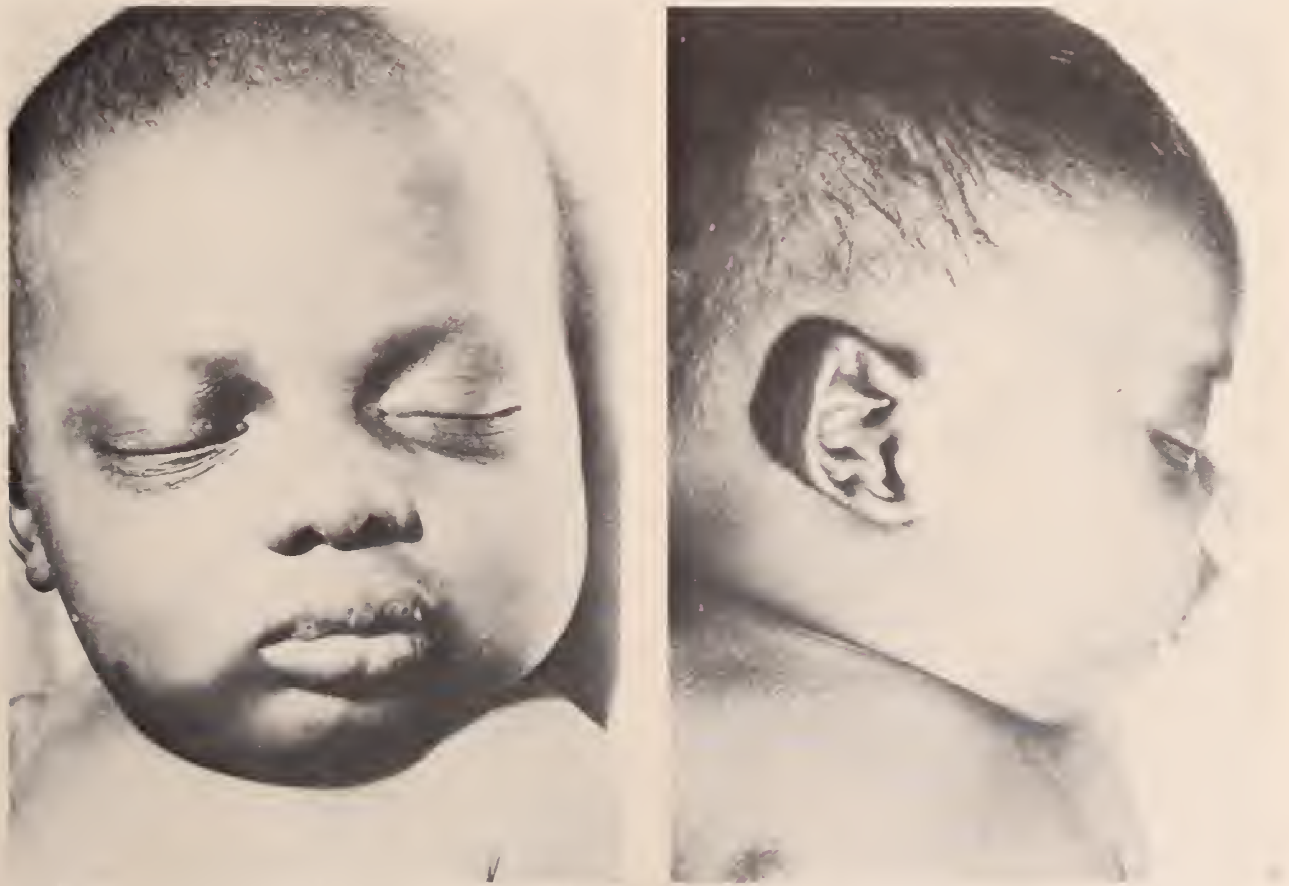

FIGURE 1. Infant at four weeks showing sparse hair and eyebrows, absence of eyelashes, bossing of forehead, saddle nose, everted lips, and characteristic elfin ear.

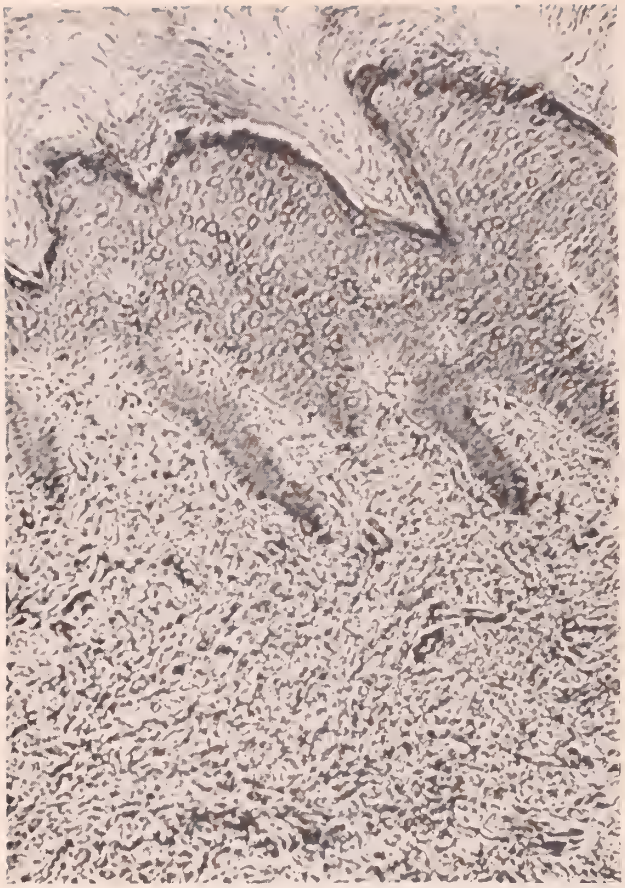

FIGURE 2. Skin biopsy shows absence of sweat and sebaceous glands and ducts.

sodium and ampicillin. The infant continued to have fever as high as 102° but remained in good general condition with normal weight gain.

Because of unexplained persistent fever, other studies, including electrolytes, calcium, blood urea nitrogen, and creatinine were performed, and results were normal. Results of tests for mycoplasma, cytomegalovirus and herpesvirus antibody titer, serum immunoglobulin concentration, intravenous pyelogram, bone marrow examination including cultures, liver enzymes test, mononucleosis test, febrile agglutinins, cold agglutinins, creatinine phosphokinase, antinuclear antibody, antistreptolysin O, and urine VMA (3-methoxy-4-hydroxymandelic acid) were all negative or within normal limits. Sweat tests for cystic fibrosis failed because of insufficient volume. The absence of sweat prompted an investigation for anhidrotic ectodermal dysplasia.

Biopsy of the right forearm demonstrated absent sweat glands and ducts and absent sebaceous glands, diagnostic of anhidrotic ectodermal dysplasia (Fig. 2). X-ray film of skull showed absent dental structures in both the mandible and maxilla.

Comment

Fever in the neonate is a potentially serious sign most often associated with infection. In the present case, antibiotics were initially administered but fever persisted. No etiologic agent was identified. A further investigation of other causes of fever, including collagen disease, metabolic disease, malignant conditions, and cystic fibrosis, was undertaken without a positive result. The lack of sweat prompted an evaluation of the ectodermal structures. These were absent on biopsy and confirmed the diagnosis of anhidrotic ectodermal dysplasia.

Anhidrotic ectodermal dysplasia is a rare inherited entity which involves structures derived from ectoderm. The disease is characterized by the inability to sweat, resulting in fever and heat intolerance. The skin is shiny, smooth, and dry. Hair, eyelashes, and eyebrows are either absent or sparse; ear, teeth, and nails are deformed, and sometimes teeth are absent. Bossing of forehead, saddle nose, and everted lips can also be found (Fig. 1). Secretion of tears and mucus from the mucosa of the upper airway is scarce or absent. These all predispose to conjunctivitis, atrophic rhinitis, chronic pharyngitis, chronic laryngitis, and chronic pneumonitis. There is also a predilection for development of atopic symptoms and asthma.[1–3]

More than 275 cases have been reported but only 5 were diagnosed during the neonatal period.[4–7] Retrospectively, the sparse hair, eyelashes, eyebrows and the hyperpigmentation of the eyelids were important physical findings suggesting the diagnosis in this case. The disease is transmitted as a sex-linked recessive disorder in affected males. Females with less severe and variable manifestations of this disease have also been reported.[8,9] It would appear these cases represent heterozygotes in whom Lyon's hypothesis applies.[10–12]

The individuals suffering from this disorder must be protected from the detrimental effect of high temperature during the neonatal period, infancy, and childhood; later in life they are able to avoid these factors. Use of dentures and wigs and psychologic support help them to adjust to society. Associated conditions are treated accordingly.

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continued from page 1830

on the basis of scientific quality and current interest to the field. They should represent new, original work, not previously published or presented at a national meeting. Deadline for receipt of abstracts is December 1, 1981.

Submitted abstracts will be published in the winter issue (Vol. VI, No. 1, 1982) of "Alcoholism: Clinical and Experimental Research," the official journal of AMSA and RSA.

Abstracts must be submitted on special reproduction paper, which can be obtained by writing to Louisa Macpherson, Forum Coordinator, National Council on Alcoholism, 733 Third Ave., New York, NY 10017.

Prevention and detection of cancer

The V International Symposium on "Prevention and Detection of Cancer" will be held at Sao Paulo, 16 to 20th of May, 1982.

As an organization accredited for continuing medical education, The Page and William Black Post-Graduate School of Medicine of the Mount Sinai School of Medicine (CUNY) certifies that this continuing medical education offering meets the criteria for 32 credit hours in Category 1 of Physicians' Recognition Award of the American Medical Association, provided it is used and completed as designed. You will be entitled to additional credit hours, awarded on an hour-for-hour basis, for attendance at Courses and Workshops.

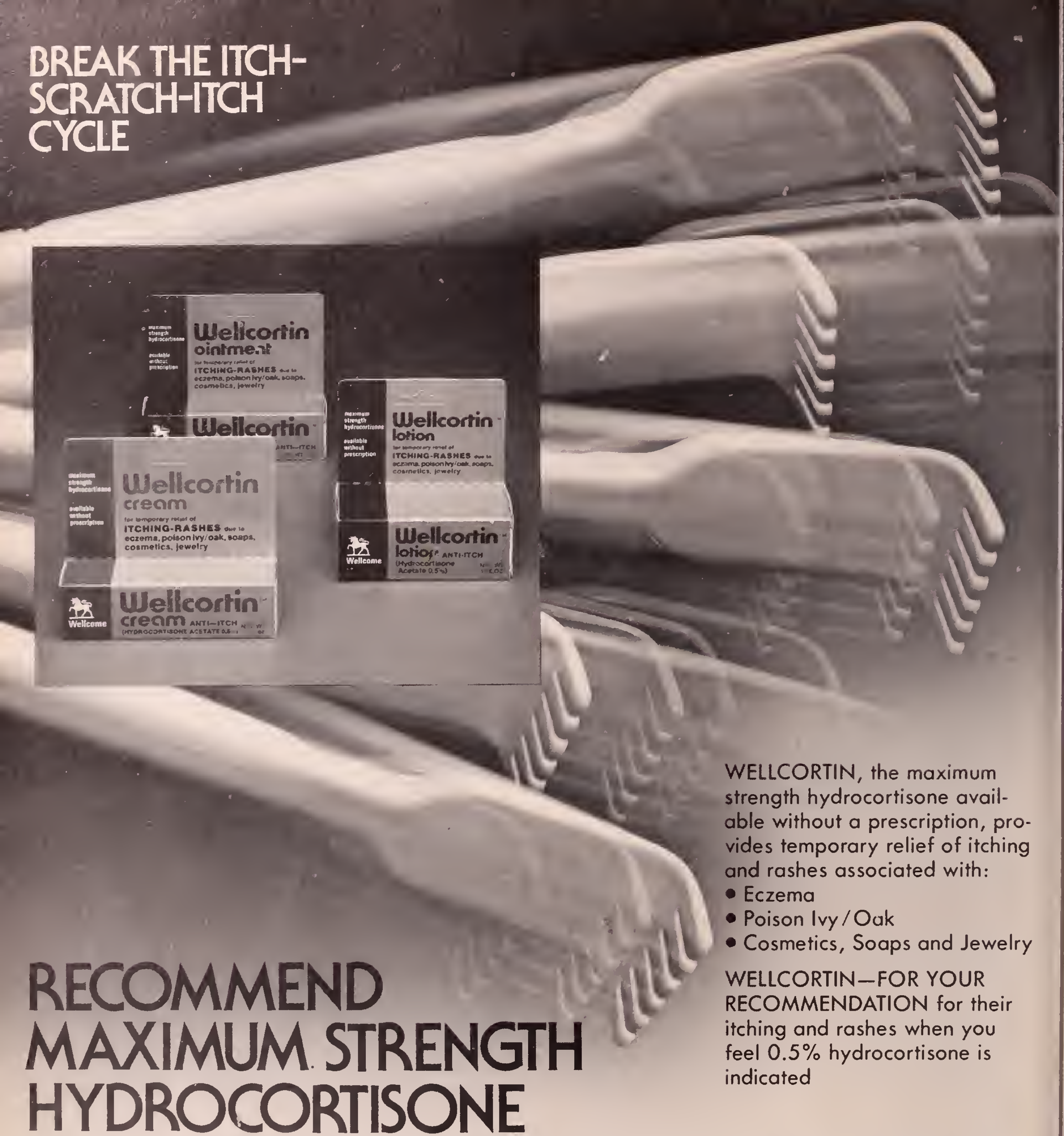
For information and brochures, contact: Medical Congress Coordinators, Department, 1212 Avenue of the Americas, New York, N.Y. 10036; telephone: (212) 840-0110.

Eighth international convocation

The Ernest Witebsky Center for Immunology, State University of New York at Buffalo, announces the Eighth International Convocation on Immunology to be held June 14–17, 1982, at the Buffalo Marriott Inn, Amherst, New York.

The theme of the program, "Regulation of the Immune Response," will include presentation of papers by distinguished scientists internationally recognized as experts on the topics: Further Information may be obtained by contacting Dr. James F. Mohn, Director, The Ernest Witebsky Center for Immunology, Room 210 Sherman Hall, State University of New York at Buffalo, Buffalo, New York 14214 USA, (telephone AC 716-831-2848).

BREAK THE ITCH-SCRATCH-ITCH CYCLE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Wellcome

Steroid Psychosis

Treatment advances

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Steroid psychosis is characterized by major psychiatric manifestations, together with a clouded sensorium; it is a delirious or toxic psychosis due to steroid and/or adrenocorticotropic hormone therapy.[1] Possible reasons for the paucity of literature on steroid psychosis include: (1) steroids are used to treat a variety of medical conditions, many of which have pyschiatric concomitants, (2) the symptoms are varied and nonspecific,[2] and (3) the full-blown steroid psychosis has become less frequent due to better clinical management (recognition of early signs, alternation of steroids, and introduction of treatment).[1] This article will summarize current knowledge on risk factors, clinical picture, pathophysiology, and treatment of steroid psychosis.

Risk factors

Time of onset. According to some authors, psychosis occurs more frequently between 15 and 30 days after beginning steroid medication[3,4]; others claim it occurs more often during the first five days.[2]

Treatment dosage. The treatment dose is a crucial factor. Patients receiving daily doses of 40 mg. or more of prednisone, or its equivalent, are at greater risk of developing steroid psychosis.[2,5]

Incidence. The incidence of psychosis increases when steroids are being used to treat medical conditions such as collagen vascular diseases. In this case, if there is a remission of the toxic psychosis immediately following a decrease in steroids, then the latter is probably the main cause of the mental disturbance.[6]

Hereditary Factors. Hereditary factors are controversial. Rome and Braceland[7] reported that a family history of psychiatric illness existed in 100 percent of their cases; Delay et al.[3] have found this in 80 percent of their cases.[3] These findings have not been corroborated in a recent report.[2]

Prior mental illness. Prior mental disease is not an absolute contraindication to steroid therapy.[8] Whether or not a history of psychiatric disorder predisposes to steroid psychosis remains controversial.

Clinical picture

In their original study, Rome and Braceland[7] defined four grades of steroid response, which they felt were prototypic of all clinical presentations: (1) Grade I consisted of mild euphoria, (2) Grade II represented hypomania and insomnia, Grade III showed anxiety, phobia, depression, or hypomania, and Grade IV responders showed psychosis.

In a review of the literature, Vasquez Villareal, Escande, and Levet[9] offer a concise description for the progression of symptoms that may lead to psychosis. Three phases are considered:

> A. Signs of impregnation, correlated with Grades I and II from Rome and Braceland's[7] classification. Insomnia and euphoria are the main symptoms in this first phase.
>
> B. Alarm symptoms occur, which warn of imminent psychosis. Any of the following may appear: anxious depression with high risk of suicide, increased euphoria and worsening of insomnia, and disorientation and depersonalization.
>
> C. Psychotic phase: This stage may appear from the very beginning or may be preceded by phases A and B. The psychotic symptoms are polymorphous and are associated with different aspects of the psychiatric syndrome, such as depression, mania, mixed states, schizophrenia, and confusional states.

Hall et al.[2] report that the majority of patients experience several types of psychotic symptoms, during a single psychotic episode. They also suggest that this variability of the symptomatic presentations may explain the frustration felt by previous authors in attempting to classify these reactions.

Pathophysiology

Much progress has been made in the understanding of the physiologic effects of corticoids on the central nervous system. Neuroendocrine and neurophysiologic research has shown that the neuronal networks, which are responsible for changes in behavior, mood, affect, or perception, are activated by corticoids, among other hormones. However, it is still not clear how alterations in neuronal function in certain anatomic systems can lead to specific behavioral changes.[10]

Woodbury et al. claim that changes in the excitability of the central nervous system explain the psychiatric symptoms caused by steroids.[8] Neurophysiologic studies show that glucocorticoid deficiency does not alter the conduction rate of nerve impulses, but the latency of transmission at central synapses is prolonged.[11,12]

High doses of glucocorticoids decrease the latency of synaptic delay.[11-13] At the molecular level, the main place of action inside the neuron is in the nucleus.[14] The steroid, being lipid-soluble, enters the cell, and in the cytosol is linked to a binding protein.[14,15] The steroid-protein complex enters the nucleus and acts at receptor regions of the chromosomes, where it alters the production of messenger RNA (ribonucleic acid).[11] Corticoids stimulate RNA synthesis in neurons and act to regulate important enzymes, notably glycerol phosphate dehydrogenase.[15]

Neuroanatomic sites, where steroids supposedly exert their action, have been shown to act through uptake studies, using radio-labeled corticosterone. The greatest binding takes place in the hippocampus, and to a lesser extent in the amygdala, septum, and cerebral cortex; no binding in the hypothalamus has been observed.[15]

Recent neurochemical studies suggest that corticoids block serotonin neurotransmitters in the central nervous system, and simultaneously increase the activity of catecholaminergic pathways.[9] Glowinsky has shown that corticoids may cause enzyme induction of tryptophan pirrolase in the liver, which would increase the catabolism of tryptophan. The end result would be a decrease in available tryptophan, with a concurrent reduction in serotonin synthesis. However, other studies are inconsistent with this formulation and indicate decreased biosynthesis of serotonin after adrenalectomy, as well as increased synthesis after glucocorticoid administration.[16] Facilitation of central glycolytic action, which has recently been shown, may also be of functional importance.[15]

The precise relationship between these physiologic effects and the development of psychosis is, however, not understood.

Treatment

There are several ways to approach the treatment of steroid psychosis. One of them is to attempt to prevent the development of psychosis. If possible, daily doses of steroids should not exceed 40 mg. of prednisone or its equivalent.[2,5] It is important to watch for warning signals that frequently precede psychosis, such as impregnation and alarm signs. Their detection might account for a decrease in the incidence of steroid psychosis, such as with 10 percent of cases treated by Rome and Braceland in 1952,[7] as compared with 1 percent by Warrot and Fossati in 1961,[17] and 2 percent reported by Peterson in 1980.[18]

Psychotropic medication is used frequently to treat steroid psychosis. Minor tranquilizers and/or neuroleptic agents are given at the lowest possible dose to control symptoms.[1,2,4] Hall et al.,[2] in a recent prospective study on 14 patients with steroid psychosis, claim that an average daily dose of 212 mg. of phenothiazine—thioridazine hydrochloride (Thorazine) or chlorpromazine hydrochloride (Mellaril)—produced an excellent response in all cases. The length of treatment with neuroleptic medication, once psychosis disappears, is empirical.

Falk, Mahnke, and Poskanzer[19] showed that lithium carbonate prevented steroid-induced mood disorders and psychotic symptoms in all 27 neurologic patients with either multiple sclerosis or retrobulbar neuritis, whereas psychosis appeared in 6 of 44 patients (14 percent) treated with steroids alone. The mechanism for this may be related to lithium carbonate's effect decreasing cortisol levels below a toxic level.[20]

Electroshock therapy has been used with good results in severe mood disorders, such as manic states, and in depression associated with steroid therapy.[18]

Comment

It is hoped that by careful longitudinal observation for changes in the mental status, and if possible, use of doses of prednisone under 40 mg. or its equivalent, the incidence of psychosis might be further decreased. Pharmacologic prevention of steroid psychosis is so far nonexistent, although further prospective studies with lithium carbonate, if successful, might lead to a new treatment approach. Once psychosis develops, attempts to decrease steroid dose, if possible, and the initiation of neuroleptic treatment will yield successful results. Further research is warranted to help clarify the pathophysiologic patterns of steroid psychosis.

Summary

There has been a paucity of literature on steroid psychosis, due to difficulties in diagnosing the clinical picture, as well as to a decrease in frequency in recent years of full-blown psychotic episodes. The risk factors and the variety of clinical symptoms are analyzed, placing special emphasis on warning signs that may precede the onset of psychosis. Recent advances in understanding the mode of action of steroids on the central nervous system have been discussed. The neurophysiologic, neuroanatomic, and neurochemical theories are reviewed, as well as their limitations. Different treatment approaches are explored, including the possible role of lithium carbonate in the prophylaxis of steroid psychosis.

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Alfred Adler and Vaslav Nijinsky— New light on an old case

A previously unpublished work by Alfred Adler, the famous German psychoanalyst, was published in the July issue of the American Medical Association's *Archives of General Psychiatry*. The work was written in 1936 as a preface to *The Diary of Vaslav Nijinsky*, the renowned Russian ballet dancer.

Nijinsky's career was cut short by a severe mental disorder, probably schizophrenia. Although some of the most famous psychoanalysts of the period examined and treated Nijinsky, Adler seemed to be the most hopeful about his recovery. Although Adler did not treat Nijinsky, Nijinsky's wife, Romola, was so heartened by Adler's opinion that she asked Adler to write a preface to the *Diary*.

The preface consists of Adler's theory of severe mental illness and some of the factors in Nijinsky's life that led to his illness. Adler stressed the then-controversial notion of inferiority complex but omitted Romola's role in Nijinsky's disorder.

The accompanying discussion by Dr. Heinz L. Ansbacher, of the University of Vermont, revealed that Romola was displeased by Adler's focus on Nikinsky's problems, and particularly by the notion that Nijinsky had an inferiority complex. Romola rejected Adler's preface and wrote a glowing one herself.

Dr. Ansbacher states that the preface had not been released earlier by the Adler estate out of courtesy to Romola. After Romola Nijinsky died in 1978, Adler's son, Kurt, released the preface to Dr. Ansbacher.

This work sheds light on the tragic decline of a world-famous artist and the theory of one of the most important and influential psychoanalysts of the twentieth century. It is the only published first-hand professional opinion of the case of Vaslav Nijinsky.

Toward a Healthy State

Report of the State Commission on Health Education and Illness Prevention

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On February 25, 1981, the New York State Commission on Health Education and Illness Prevention formally presented its report entitled, *Toward a Healthy State* to Governor Hugh Carey and to the state legislature. This report, a result of two years of study and deliberations, is the first major study of public health in New York since Governor Franklin D. Roosevelt authorized a similar study in the 1930s. While the commission's work has become widely known in public health circles, relatively few physicians and hospitals are aware of its genesis, proceedings, and findings. The purpose of this article is to acquaint physicians with the commission's findings, particularly as they relate to the practice of medicine.

Why the commission was established

Despite claims of a second public health revolution, prevention and health promotion remain largely neglected in America; a situation where rhetoric has far outweighed the resources allocated. New York State is no exception. Ten percent of the gross state product goes for health services; more than $1,000 per capita is spent on health care each year; 22 percent of the state budget goes for health activities; and yet only 4 or 5 percent is spent on preventive health measures.[1]

According to a report of the New York State Assembly Health Committee, the state budget of fiscal year 1981 called for expenditures of $16.30 per person to finance hospital care under Medicaid; $21.46 per person for nursing home care; $8.43 for medical education; but only $2.67 per person for health promotion, an amount actually $1 less than in 1976, when the purchasing power of the dollar was greater.[2]

The public has become uneasy about the high cost of health care, doubting whether more dollars can in fact buy better health. Past governmental spending programs have left us with too many hospital beds, wasteful programs, and even a surfeit of physicians. One rarely hears calls for more investment in health care, but rather, hears pleas for hospital cost containment, scaled down expectations, and rationing of health care.

Concurrently, the public seems to have developed a diffuse interest in prevention. This interest is expressed in a variety of ways, from a concern for a healthful environment and more healthful lifestyles, to meditation classes and the so-called holistic medicine movement. Numerous reports on the value of prevention have been published, including the recent report of the surgeon general, Healthy People.[3] These developments have prompted some hopeful observers of the health scene to talk of a renaissance in preventive medicine, or a second public health revolution.

Impelled by the unsound pattern of expenditures and by the realization that neglect of health promotion and illness prevention will only result in more illness and disability, the governor and the legislature established the New York State Commission on Health Education and Illness Prevention, in January, 1979. The commission was charged to "examine, study in depth, and develop a strategy for health maintenance and health communication, education and promotion." Nine of the commission's 15 members were appointed by Governor Carey, and the other 6 by the state legislature.

To focus on definable areas of study, the commission established five task forces in personal health services, school health, media and communication, health manpower, and environmental and occupational health. Public hearings were also held throughout the state. Both task forces and hearings included wide representation from public and private health agencies, voluntary and community groups, health providers, insurance companies, the media, and citizens.

Findings and recommendations

The commission adopted three fundamental principles necessary to accomplish its recommendations.

1. The integration of health education and preventive health services into the mainstream of the health care system.
2. Improved financing of illness prevention and health education services.
3. Improved coordination of the various efforts, resources, and activities in the state related to health ed-

ucation and illness prevention.

While the commission formally adopted 36 specific recommendations, 5 of them were targeted for priority action:

1. Access to comprehensive maternal health services for all pregnant women and teenagers regardless of socioeconomic status.
2. Assurance that schools are providing a comprehensive health education program for all students.
3. Implementation of currently indicated actions and development of future plans to insure a clean and safe drinking water supply throughout New York State.
4. Access to comprehensive preventive health services for medically indigent minority populations and other disadvantaged populations to improve their disproportionately poor health status.
5. Conduct selective, high-yield, cost-effective health screening programs and preventive services for high risk populations.

The full recommendations of the Commission are:

Personal health services. On personal health services it is recommended that:

1. the state give highest priority to maternal and child health in the provision of preventive personal health services and health education;
2. all pregnant women and teenagers have access to high quality perinatal care without regard to economic status;
3. teenagers be considered a priority group for health education and health services, with emphasis on the prevention of unwanted pregnancies, alcohol and drug abuse, sexually transmissable diseases, smoking, obesity, and emotional problems;
4. New York State increase its funding support for screening programs in high-risk populations for hypertension, breast cancer, cervical and endometrial cancer, and selected genetic disorders;
5. the state increase its funding support for community-based ambulatory care programs, to improve the quality and availability of preventive and primary care services, especially to medically indigent populations; and
6. health education be considered an integral part of personal health services delivery, and that Article 28 provider agencies be reimbursed for structured health education programs.

School health. On school health it is recommended that:

1. all school children in the state have equal access to school health services, and a single standard of performance apply statewide;
2. Child health assurance program (CHAP) or early, periodic, screening, diagnosis and treatment (EPSDT) standards be adopted as a statewide standard for school health services;
3. existing and subsequent legislative mandates for school health services be strictly enforced;
4. the state strengthen health education curriculum requirements and ensure strict enforcement;
5. students in elementary education programs be required to have training in health education and the requirements regarding necessary certification for those teaching health education in secondary schools be enforced;
6. the Offices of School Health Education and Health Education Promotion Services work jointly to plan and implement more effective school and public health education programs; and
7. the Commissioner of Education and the State Commissioner of Health jointly develop guidelines for the total school environment that are consonant with and support the health education curriculum.

Media and communication of health messages. On media and communication of health messages, it is recommended that:

1. the office of Health Education Promotion Services be given an operating budget to make possible the planning, implementation, and evaluation of programs in education and health promotion based on state needs and priorities;
2. the state strengthen the office of Health Education Promotion Services by including professionals trained in health education as staff members;
3. the Office of Health Education Promotion Services determine the most efficient use of media in communicating health messages; and
4. the state periodically measure or survey the level of health knowledge of the population.

Health manpower. On health manpower it is recommended that:

1. the state take appropriate actions to substantially improve the current maldistribution of physicians, nurses, dentists, and allied health personnel throughout the state with special attention to the scarcity of such personnel in underserved areas;
2. incentives be provided to solo practitioners willing to practice in rural and disadvantaged inner city areas;
3. schools of medicine, dentistry, and nursing modify their curricula to give greater training emphasis to health education, preventive medicine, nutrition, environmental and occupational health, and community organization approaches;
4. clearer definitions of the role and authority of physician's assistants and nurse practitioners be articulated in the Public Health and the State Education Law;
5. the State Health Coordinating Council (SHCC), the Health Planning Commission, and the State of New York Department of Health include manpower requirements in health education and illness prevention as part of their needs assessments; and
6. the Regents Shortage Area Scholarship Program be modified to insure that recipients complete their service requirements in areas of critical need, according to the federal definition of health manpower shortage areas (HMSA).

Occupational health. On occupational health it is recommended that:

1. the state upgrade the Occupational Health Unit in the Department of Health, in its ability to coordinate ed-

ucational activities, referral services and research;
2. occupational health be integrated into the curricula of medical and other health professional schools;
3. legislation requiring employers to notify employees of exposure to toxic and hazardous substances be supported;
4. the state encourage health promotion and preventive services at the worksite by making health education available for state employees, encouraging employee exercise and physical fitness programs, and facilitating access to preventive health services; and
5. Occupational Safety and Health Act (OSHA) or comparable coverage be legislated for public employees.

Environmental health. On environmental health it is recommended that:

1. legislation be enacted which would require health providers to report known or suspected environmentally-induced diseases;
2. the state adopt and enforce stronger regulations on the maintenance and usage of x-ray equipment;
3. the State Department of Health and Environmental Conservation conduct a public education campaign on the dangers of exposure to toxic substances to reduce unwarranted anxiety and misinformation;
4. state and local health department laboratories be strengthened in their capacity to identify and monitor the presence of hazardous substances in the air, soil, and water; and
5. the state increase its support of research efforts to identify and monitor health problems associated with exposure to environmental hazards.

Other recommendations. Other recommendations are:

1. A permanent select advisory group be established to advise the State of New York Department of Health on health education and illness prevention issues;
2. New York State adopt a more equitable method for funding local public health departments and that the level of support adequately reflect the state's commitment to prevention and health promotion; and
3. The state modify its reimbursement provisions in reference to tuberculosis care and treatment.

What the future may hold

The commission formally ended its work earlier this year, but in a larger sense, the work of accomplishing goals and recommendations has only begun. The success that can be achieved will depend, in large measure, on the determination of health advocates. Physicians and hospitals have important roles to play.

First, physicians and hospitals can become familiar with the recommendations. Many have already been written into legislative proposals that will need your active support. Care and treatment have a natural advocacy in the sick themselves, but health, for its protection and promotion, has no such allies.

Physicians must think "prevention" and honor it in their hospitals and private practices. Plato wrote, "What is honored in a country is cultivated there." Preventive medicine has not particularly been honored or cultivated in our otherwise superb hospitals and medical schools, but this can be changed if physicians and hospitals ask whether there are some ways in which people can avoid the very diseases which bring them prematurely to their doors. This does not mean that the quest for excellence in curative medicine should be abandoned, but a better balance between curative and preventive services must be struck.

Hospitals can follow the experience of those who have already developed excellent community health education programs. The Lenox Hill Hospital in New York City has developed a useful model in their pioneering effort in public health education. Each hospital must tailor its efforts to fit the community's needs, resources, and interests. The hospital provides the most logical setting for the accomplishment of in-depth health education and illness prevention. Therein resides the unmatched expertise of physicians, scientists, nurses, nutritionists, dieticians, psychologists, and social workers; a perfect team for community health education. Physicians and hospitals have well-established credibility: when health professionals speak, people listen. They enjoy a special relationship with the community they serve, and they are looked to for leadership and guidance. The great medical historian, George Rosen, said, "whether man lived in a city or on the land, how he saw his fellow man and how they looked upon him . . . the values he prized, the learning, arts and sciences that gave shape to his society . . . all have affected the development of the hospital, the form it has achieved, and the services it offered. To be understood, the hospital has to be seen; therefore, as an organ of society sharing its characteristics, changing as the society of which it is a part is transformed . . ." [4]

Illness prevention and health education are not only good medicine, but also sound economic measures. As Milton Terris has pointed out, "With an annual estimated saving of at least 400,000 lives, 6 million person-years of life, and $5 billion in medical costs, it is difficult to conceive that the costs of prevention will even remotely begin to approach the benefits, regardless of how comprehensive and expensive the program may be."

However, in a troubled economy, plagued by inflation, when tax cut and fiscal restraint are the watchwords of the day, it will take vision and courage to increase our state's investment in public health and in prevention to back up rhetoric with resources. But in 1930, in very hard times, a governor of this state, Franklin D. Roosevelt,[5] had the courage and foresight to do just that. He put it this way, "(the) practical techniques of local public health service . . . have shown convincingly that not only is 'public health purchasable,' but its price is much less than the price of neglect," and he backed up those words with adequate financing. Roosevelt's faith in the value of public health was well placed. Such faith would still be well placed. The choice is ours. We can give public health the support it merits and reap its benefits or we can neglect it and continue to pay the price.

Toward a Healthy State, the report of the New York State Commission on Health Education and Illness Prevention, offers a plan of action which deserves implementation and the support of every New Yorker interested in promoting the health of his fellow citizens.

Summary

Toward a Healthy State is the report of the New York State Commission on Health Education and Illness Prevention. This report is the first governmental study of public health in New York since a similar one was made in 1930 to Governor Franklin D. Roosevelt. The commission found that illness prevention and health education programs in the State of New York are much in need of revitalization and that they merit additional societal and financial investment.

The major recommendations of the commission in the field of personal health services, school health, media and communication, health manpower, and occupational health and environmental health are given in summary form here. A strong case is made for physician familiarity with, and support for, the commission's recommendations.

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Flying squirrels carry typhus microbes

They're cute, sociable, and make gentle pets. But they can also make you very sick.

Flying squirrels, native to almost the entire eastern United States, have been found to carry the microbe that causes human ET (epidemic typhus), according to a research report in the Journal of the American Medical Association, June 12.

ET was once thought to be an exclusively human disease, transmitted from person to person by human body lice. But reports of seven cases of ET in Virginia, West Virginia, and North Carolina implicate the southern flying squirrel as another probable source of the disease organism.

In all seven cases, the patients were believed to have been exposed closely and frequently to flying squirrels. In several instances, nests like those made by the rodents were found in the patients' homes or in other buildings used by the patients.

Blood tests performed on flying squirrels trapped in those areas revealed that 25 to 100 percent of the animals carried antibodies to ET, showing that they were exposed to the disease. Interestingly, other animals trapped with the squirrels, as well as lice, mites, and fleas removed from all the animals, showed no evidence of exposure to ET when tested.

The course of the disease varied widely among the patients. In some it was mild, in others nearly life-threatening. Six of the seven patients received antibiotics, and all of them recovered completely.

The researchers could not prove conclusively that the patients suffered from ET because they could not obtain blood samples early enough to isolate the disease microbe before the start of antibiotic therapy. Nevertheless, sophisticated laboratory tests on blood obtained later allowed the researchers to differentiate the disease from infections caused by related organisms.

Researchers are confident that the flying squirrel was the disease source in all seven cases, but they could not identify the way the disease was transmitted from squirrel to man.

Treatment of Psychologic Problems by Nonpsychiatrist Foreign Medical School Graduates

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Two of the authors have been studying physicians practicing in rural upstate New York for some time.[1–3] As a result of one study, we recently reported that the proportion of non-USMGs (United States medical school graduates) practicing in this area has increased dramatically,[4] a finding that has been corroborated in other studies.[5,6] To better understand the causes and sequellae of this in-migration, in the summer of 1979 we interviewed non-USMGs who were practicing in the rural communities of western New York State. One of the questions in this interview was designed to reveal how comfortable these physicians felt in dealing with minor psychologic problems. We reasoned that sensitivity to differing cultural values would be more important in counseling patients than in other areas of medical therapy. Additionally, we felt this question might indicate how successfully the respondents had been integrated into the physician network in their respective communities.

Methods

Our study population consisted of 70 physicians, constituting approximately 80 percent of all non-USMGs practicing in New York State's Seventh Medical Society District (excluding the metropolitan area of Rochester). All eligible respondents were determined through the use of the most recent medical directories, supplemented with listings of physicians in telephone directories. All non-USMGs were contacted by mail, asking their help in the study and their willingness to be interviewed in their offices; we then conducted open-ended interviews with all those who agreed to cooperate in the study. The question that provided the data for this paper was, "If a patient presents what initially seems to be a nonacute† psychologic problem, do you generally attempt to deal with it directly or do you generally refer the patient to someone else?" The question was asked of all physicians except practicing psychiatrists; they were not included because we assumed they would uniformly treat nonacute psychologic problems.

TABLE I. Responses to question regarding treatment of psychologic problems, by category of response

Category	N (Number)	Percent
1. Refer, refer and follow, or refer to own psychiatric department	18	36.7
2. No facilities or adequate therapists to which to refer patients	3	6.1
3. Always deal directly with such problems; it is part of the physician's job	26	53.1
4. Deal directly with such problems, but only the long-standing patients	2	4.1
TOTALS	49	100.0

Before we present the results, a caveat regarding the physician population interviewed is in order. Because there are three large State psychiatric hospitals in this rural region, we interviewed a disproportionately large number of psychiatrists (N = 10, or 14.3 percent of the total). Given the fact that many non-USMGs are able to obtain residencies in psychiatry more easily than in other specialties, although this specialty was not always their first or intended choice, excluding the psychiatrists resulted in eliminating one seventh of the total respondents.

Of the 70 physicians interviewed, 11 respondents other than the 10 psychiatrists (consisting of 4 anesthesiologists, 4 radiologists, 2 pathologists, and 1 internist) did not answer the preceding question.

Findings

Of the 49 physicians who answered this question, the respondents fell into the 4 categories listed in Table I. If we combine categories 2 through 4, almost two thirds of them are engaging in some psychotherapy (N = 31, 63.3 percent), with over half the total (N = 26, 53.1 percent) stating that they always deal directly with such problems (category 3).

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* Retired.

† Although psychiatrists generally use the term "nonacute" to refer to the onset rather than the severity of psychologic problems, we were referring specifically to severity. Because these were personally conducted interviews, we were able to convey to the respondents the intended meaning of the term as we used it. Furthermore, we feel that most nonpsychiatrist physicians use the term "nonacute" in the sense we intended. We thank Norman Pointer, M.D., for assistance in calling this to our attention.

TABLE II. Responses to question regarding treatment of psychological problems, by physicians' specialty

	Always/Usually Treat		
Always Refer	Treat Because of Inadequate Facilities	Treat Because It Is M.D.'s Job	Treat Only Long-Standing Patients
5–Surgery 3–Urology 3–Obstetrics/gynecology 2–Cardiology 2–Internal medicine 1–Otolaryngology 1–Industrial Medicine 1–Pediatrics	1–Pediatrics 1–Surgery 1–Family medicine/general practice	6–Family medicine/general practice 3–Internal medicine 4–Pediatrics 4–Surgery 3–Obstetrics/gynecology 2–Anesthesiology 1–Industrial medicine 1–Otolaryngology	1–Obstetrics/gynecology 1–Family medicine/general practice

TABLE III. Response to question regarding treatment of psychologic problems, by country in which M.D. degree was obtained

	Always/Usually Treat		
Always Refer	Treat Because of Inadequate Facilities	Treat Because It Is M.D.'s Job	Treat Only Long-Standing Patients
9–Asia 4–India 3–Pakistan 2–Philippines and Oceania 3–Canada 2–Europe 2–Middle East 1–Africa	2–Asia 1–India 1–Southeast Asia 1–Europe	11–Europe 10–Asia 4–Southeast Asia 3–Pakistan 1–Philippines and Oceania 1–India 1–China 2–Canada 2–Middle East 1–Africa	1–Europe 1–Canada

The field of specialty in which they are trained seems to make some difference in their willingness to deal with psychologic problems. Urologists (N = 3) and cardiologists (N = 2) would always refer such problems, but those specializing in surgery, otolaryngology, and industrial medicine were as likely to deal with such problems themselves (N = 7) as to make referrals (N = 7) (Table II). As one would expect, those in primary care medicine are more likely to treat this type of psychologic problem themselves. That preference held for obstetrician/gynecologists (4 treat, 3 refer), internists (5 treat, 2 refer), and pediatricians (5 treat, 1 refer). Only in family medicine/general practice (N = 8) did all respondents answer the question and state that they themselves would treat nonacute psychologic problems.

There are some interesting observations on the relation of the country in which the M.D. degree (or its equivalent) was obtained compared with the willingness to treat nonacute psychologic problems (Table III). Physicians trained in Africa, Canada, Pakistan, and the Middle East are as likely to treat as to refer such problems. Those trained in Europe and southeast Asia are at least five times as likely to treat as to refer (Europe: 13 treat, 2 refer; southeast Asia: 5 treat, 1 refer); those trained in India are twice as likely to refer (4 refer, 2 treat).

Although the findings outlined in Tables II and III are interesting, the number of respondents in each category is so small that the results must be treated cautiously.

Comment

Our in-depth interviews with non-USMGs who practice in five rural counties in western New York indicated that almost two thirds of those who are not psychiatrists engaged in treating psychologic problems. Given the importance of this type of medical intervention, it would seem that there is a need for training to make sure that the intervention is as beneficial as possible. Even the determination that a psychologic problem is mild or moderate, rather than severe and thus necessitating referral to a psychiatrist, requires adequate training. Certainly the high percentage of these physicians who give some sort of psychotherapy to their patients calls for attention from medical educators, and especially from those engaged in continuing medical education. This is especially important for the non-USMGs, given the fact they now constitute about one third of all practicing physicians in this region.[4]

Many of the physicians in this study believe that dealing directly with psychologic problems constitutes one of the most important aspects of the medical enterprise and is an integral part of their practice. Among the responses we received were the following:

> Most patients want to talk with the doctor, they come for that.
>
> You have to listen, otherwise you're wasting your time. You can't shoo off a patient.
>
> Psychologic issues are interesting.
>
> It's part of the physician's job, an integral part of the profession. You're not a good doctor if this isn't done.
>
> I handle nervous complaints myself, I'm a family doctor.

Most of the respondents are aware of the large amount of time involved in handling such problems. One physician scheduled patients presenting psychologic problems for later afternoon hours, and then gave them as much time as they needed. Several comments indicated the physicians' awareness of the time required by these patients, and the fact that such care is not lucrative:

> It takes more time.
>
> I deal directly with children's problems and have a consultation (often an hour) with the parents. No charge for parent consultations.
>
> Takes quite a bit more time.
>
> Percentage medicine isn't good for medicine.
>
> I spend more time with this type patient.

Even those who refer patients often spend extra time, together with follow-up:

> I refer mental problems, but I follow patients jointly with the psychiatrist.

The lack of psychiatrists or other perceived problems with referral were also mentioned:

> Few psychiatrists in a small community.
>
> There's no good agency. I'm not satisfied with the Mental Health Clinic. There's no feedback from agencies.
>
> The clinic at _____is not adequate; it's unsatisfactory.
>
> Most patients won't go to the referred psychiatrist.
>
> I'd like to refer, but psychiatry is the worst [medical] field, not even adequate in the city. If you really need it, you can't find service. It's a big problem in an emergency situation.

However, when psychiatry was part of a large group practice, as at one hospital in the area, the replies were more positive: "I refer to our own psychiatric department. We have excellent facilities, both inpatient and outpatient."

Conclusions

The results we obtained, in a group of physicians that might be expected to be reluctant to treat psychologic problems through talk therapy because of the dissimilarity between the culture in which they were reared and that in which they now are working, indicate that this type of intervention is prevalent in their actual clinical practice. Yet most of them received little if any training in psychiatry. Thus some type of continuing medical education in this field seems warranted.

We were not able to ascertain the effect of the small number of nonhospital-based psychiatrists in this rural region on the willingness of nonpsychiatrists to treat these problems. However, it should be noted that there were some mental health clinics in this region, and none of these physicians lived more than 100 miles from Rochester, a city with a large medical-school-based psychiatric faculty and with highly varied psychiatric services. A comparison of these findings with similar data for rural USMGs and urban physicians, wherever trained, would be interesting.

For example, are nonpsychiatric physicians, those who believe that treating psychologic problems is one of their professional roles, affected by the presence of psychiatric services in their respective communities? We do not know how our respondents view the American trend of medicalization of behavior,[7] but it is not surprising that the majority of these non-USMGs—presumably like their USMG counterparts—are comfortable in dealing directly with the minor psychologic problems their patients present.

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Lincoln Did Not Have the Marfan Syndrome

Documented evidence

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Two medical authors[1,2] have suggested the diagnosis of the Marfan syndrome for Abraham Lincoln; they have been parroted by others, particularly by the popular press. This study examines the arguments they presented and offers firm evidence that Lincoln himself definitely did not fit the classical Marfan syndrome.

In 1962, A. M. Gordon, M.D.,[1] wrote an excellent article proposing the interesting speculation that Abraham Lincoln might have fitted into the classical syndrome described by A. B. Marfan, M.D.,[3] which he had been studying; he presented this possibility as an intriguing conjecture, letting the reader decide for himself how appealing or valid the speculation appeared. He proposed that the defective gene transmitting the Marfan syndrome might have come through Lincoln's mother, Nancy Hanks. In 1964, a second author, Harold Schwartz, M.D.,[2] of California, seized on Gordon's proposal, but disagreed with him, attributing the link to Lincoln's father's family. He offered an inferential family diagram, relating an 11-year-old male patient of his to an alleged common Lincoln ancestor, born some 300 years (nine generations) before, but identified no other cases during this time (since 1687). Since the Marfan syndrome is inherited as an autosomal dominant, these sporadic cases might seem more likely to be new mutations. Both authors[1,2] proposed that Lincoln had the classic, full-blown Marfan syndrome.

Schwartz next declared that Lincoln had aortic insufficiency, and then went on to state that Lincoln was about to die from it.[4] Evidence to support either of these claims is lacking, as we shall see.

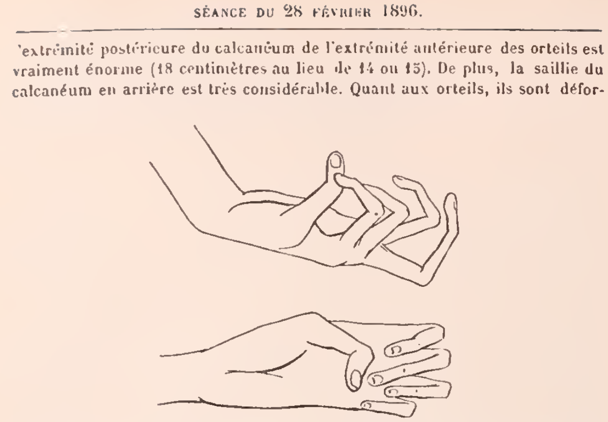
If the trait had indeed been present on both sides of Lincoln's family, most of his sons should have had the classic syndrome, yet none of his sons were identified as having any of the inherent characteristics. In fact, on close examination, it seems clear to me that the data by which the "diagnosis" was pinned on President Lincoln are inadequate, and that on the opposite side of the argument, there are many more hard facts and materials available that indicate, and virtually establish, that Lincoln himself did not fall into the Marfan category.

Lincoln was a lanky, tough, muscular frontiersman. In his youth, he outfought the most powerful rough-and-tumble wrestling champions in his part of the country. He was a commander (captain) of troops that marched against the Indians in the Black Hawk War. He made his living as a rail splitter at one stage, and, just before he was assassinated, at age 56, he put on a display of woodchopping with a heavy axe, making the chips fly in all directions, a feat that amazed the audience of convalescent servicemen at the soldier's home near Washington. He finished by standing up and holding the heavy axe out at arm's length by the tip of the handle. A man with the classic Marfan syndrome would not be able to do this, since the connective-tissue defect would have prevented him from locking his fingers and wrist. This cluster of facts alone puts Lincoln outside the syndrome of disabilities later described by Marfan, in 1896,[3] 31 years after Lincoln's death. But, let us examine the criteria and the facts in more detail.

What is Marfan syndrome?

The Marfan syndrome is classified, according to Pyeritz and McKusick,[5,6] as a heritable disorder of connective tissue. Because its clinical and pathologic alterations involve connective-tissue supporting elements, it is assumed to be an inborn error of protein metabolism, particularly in collagen or elastin, in its classic form. It is associated with disorders of the connective tissues of the eye, the aorta, the long bones, and the joints.[7] Marfan,[3] writing in the *Bulletin of the Society of the Medical Hospitals of Paris* in 1896, described in detail a young patient with symmetrical elongation of hands and feet. In the drawings he made of her hands, the skull was elongated and the fingers so slender that they resembled the legs of a spider (Fig. 1); her joints tended to have contractures. One brother had a congenital cataract and one sister a strabismus. Six years later, two other French physicians, H. Mery, M.D., and L. Babonneix, M.D. (1902), described the same patient and noted that severe dorsal kyphoscoliosis had also developed.[8] In other patients, extreme laxity of the joints was noted.

With further study, it has turned out that these



SÉANCE DU 28 FÉVRIER 1896.

'extrémité postérieure du calcanéum de l'extrémité antérieure des orteils est vraiment énorme (18 centimètres au lieu de 14 ou 15). De plus, la saillie du calcanéum en arrière est très considérable. Quant aux orteils, ils sont défor-

FIGURE 1. Arachnodactyly (spider fingers) as illustrated in drawing taken from Dr. Marfan's[3] original article describing syndrome. Slender bones resemble legs of large spider. (Credit, B. J. Marfan)

patients with the Marfan syndrome are suffering from a connective-tissue deficiency which classically leaves their joints limber and easily bent backward. Their bones are so slender and their interosseous muscle masses so inadequate that their fingers actually do look like the legs of a spider (Fig. 1). Their thumbs are so long that when they wrap their other fingers around their thumbs, to "make a fist," the tips of the thumbs may project well beyond the lateral border of the fist itself.[9]

The supporting structures of the lenses in their elongated eyeballs are often so weak that the lens dislocates in as many as 60 percent of the cases, resulting in a severe ocular disability, following on the myopia from the elongated eyeball. Detached retina is common and the corneas of these patients with Marfan syndrome are nearly always abnormally flat. The flat cornea, the elongated globe, and the easy detachment of the lens or retina make for severe visual problems, beginning with myopia (not hyperopia, as Lincoln had). The connective tissue of the first portion of the aorta is often so weak that dilation of the aorta is common, with either rupture, dissecting aneurysm, or incompetence of the aortic valve.

Classically, the long bones are not only thin, but are also very long, so that the span between the fingertips of the outstretched arms exceeds the patient's height. Unfortunately, as Pyeritz and McKusick[6] and Eldridge[10] have pointed out, this is also so often true of normal tall men as to be of no value by itself as a diagnostic sign. The measurements of the lower segment of the body (from pubis to heels) run longer than the upper segment; this is also so common in normal tall men that it is of no value, by itself, in diagnosing Marfan's syndrome.

Scoliosis, kyphosis, spondylolisthesis, pectus deformity, slipped epiphysis, and extreme laxity and instability of the joints are all very common among patients with the Marfan syndrome, due to their weak supportive ligaments. It is the connective-tissue deficiency that causes the disorders of various systems.

Pyeritz and McKusick[6] point out that the Marfan syndrome is inherited as an autosomal dominant; in only 15 percent of cases, do other family members lack signs of the syndrome. The average paternal age is increased in these sporadic cases, thereby supporting the notion that they represent new mutations. In genetic counseling, families are advised that "skipped-generation" exceptions do not occur.[6]

Pyeritz and McKusick[6] go on to state that one unfortunate result of clinicians' increased awareness of Marfan phenotypes is the growing tendency to label the syndrome, in a person who has few manifestations, a "forme fruste," an atypical form. Patients with various other syndromes, or even healthy subjects, may have one or a few features of the Marfan syndrome; if the term "forme fruste" were to be indiscriminately applied, only confusion would result. In short, a patient with the classic Marfan syndrome, with which it has been alleged that Lincoln was afflicted, would have the following symptoms, not one of which do we know Lincoln had:

1. Lax and unstable joints.
2. Weakness of the suspensory ligaments of the lenses of his eyes.
3. Nearsightedness (he was farsighted).
4. Scoliosis or other skeletal defects.
5. Arachnodactyly, which the casts of his hands prove he did not have.
6. A large hat size, from dolichocephaly.

As to skeletal disproportions, we have no actual measurements to which we can refer, but we know that by themselves these measurements are so often found in normal men that they are worthless in the absence of other conclusive findings.

What evidence is there that Lincoln had Marfan's?

Actually, there is no firm evidence that Lincoln had the Marfan syndrome.

On the contrary, Lincoln's fingers were big, thick, and powerful. Fortunately, we have, for analysis and examination, the plaster casts of Lincoln's hands made by sculptor Leonard Volk in the year 1860 (Fig. 2A, B, and C). They show the thick bones and powerful musculature of a big strong man with normally proportioned hands, rather than the excessively slender bones and excessively long thumbs of someone with the classical Marfan syndrome.

In Figure 2A and B, the casts of Lincoln's hands can be seen alongside the hands of a man of the same height but with Marfan's syndrome. It is quite obvious that Lincoln's hands have thicker bones and more muscularity by a large margin. One of the characteristics mentioned by Marfan[3] is the lack of muscle mass, and it is obvious that the interosseous and thenar muscles are deficient in the Marfan syndrome hands with their excessively slender bones, whereas these features are totally absent in Lincoln's

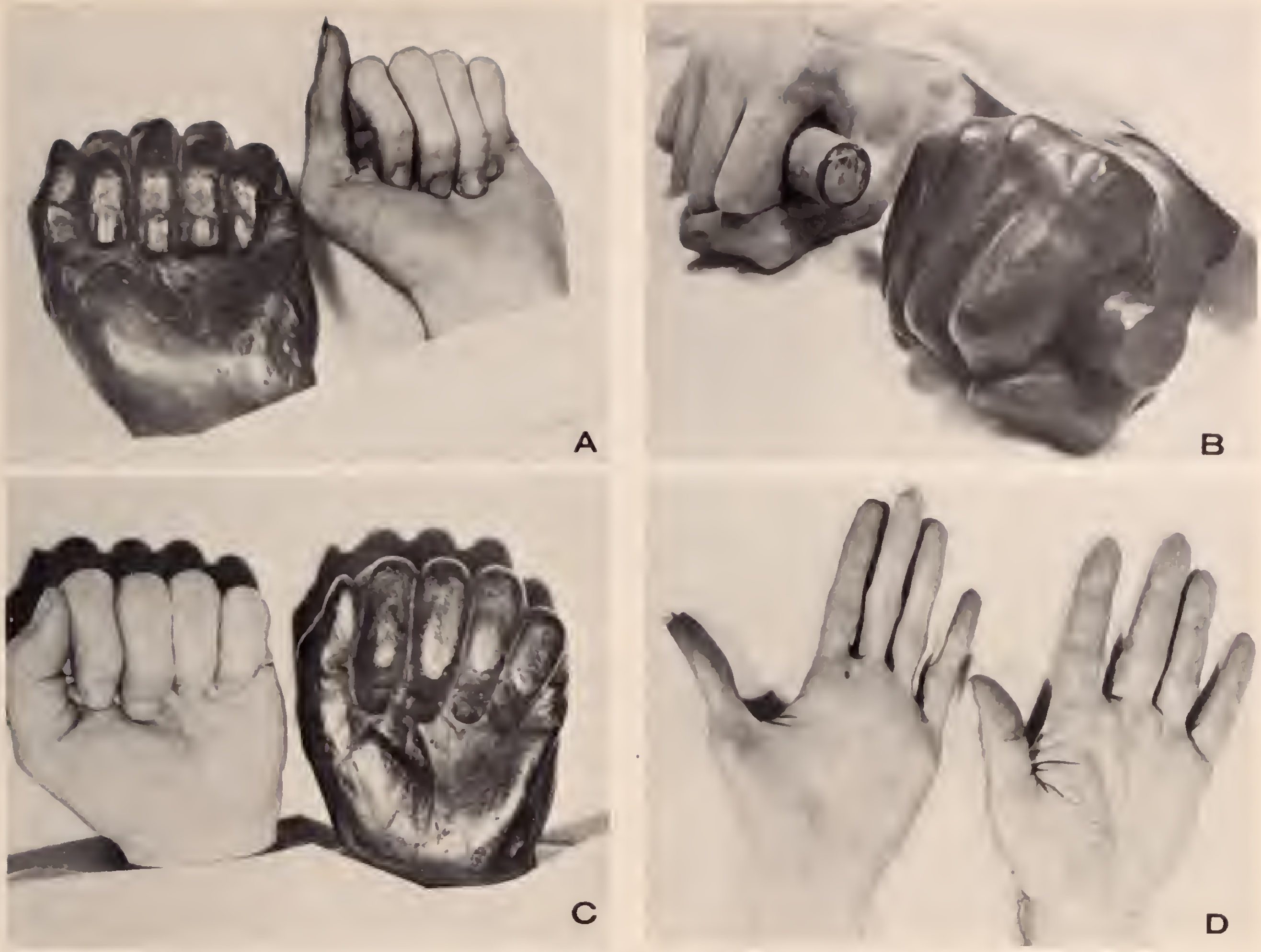


FIGURE 2. (A) Cast of Lincoln's hand (left) alongside hand of man of same height, with Marfan syndrome (right). Lincoln's fingers are thick and hands muscular. Marfan syndrome hand has excessively slender bones and deficient muscularity. Marfan syndrome thumb is excessively long; Lincoln's is of normal length. (B) Lincoln's hand compared with Marfan syndrome hand. Cast of Lincoln's right hand, grasping segment of broomstick, compared with right hand of man of same height with Marfan syndrome, grasping similar piece of broomstick. Fingers of Lincoln's hand are so much thicker and hand so much more muscular than that of Marfan syndrome man that difference is obvious. (C) Cast of Lincoln's left hand and left hand of normal man of same height. Note similar thickness and proportions of fingers, hand muscles, and similar length of thumbs. (D) Marfan hand compared with normal hand. Extended left hands of two men, each 6 feet, four inches tall; left: Marfan syndrome hand, right: normal hand. Normal hand same proportions as Lincoln's hand. (Courtesy, John K. Lattimer, M.D., Sc.D.)

hands. The excessively long thumb of patients with the Marfan syndrome is clearly visible in the patient's hands shown in Figure 2A, B, and D. If a patient with the Marfan syndrome were to wrap his fist around his thumb, the thumb would protrude well beyond the fifth finger[9]; it is obvious from the casts of Lincoln's hands that he does not have this excessively long thumb (Fig. 2A, B, and C). The hand of a normal man of six feet, four inches, is also shown with the casts of Lincoln's hands in Figure 2C and with Marfan syndrome hands in Figure 2D to demonstrate how normal Lincoln's hands were.

The configuration of the fingers of one of Marfan's original patients, which was what attracted his attention to this syndrome, are shown in the drawing taken from Marfan's[3] original article (Fig. 1). These are characteristics of the appearance of patients with the Marfan syndrome when you examine them; they do indeed look like the slender legs of a large spider, and it is quite obvious that Lincoln's fingers did not have this configuration. It has been said that the plaster cast of Lincoln's left hand makes it seem larger than his right hand, but his hands are shown in such different poses that I cannot verify this allegation. The fact that the phalanges of his middle fingers are longer than those of his other fingers is not sufficiently different from those of normal large men to afford it diagnostic significance.

The critics quote sculptors and anthropologists who examined and measured these casts of Lincoln's hands and who commented that he had long hands and fingers in keeping with his elongated frame; they did not suggest that his hands were disproportionately long nor his bones disproportionately

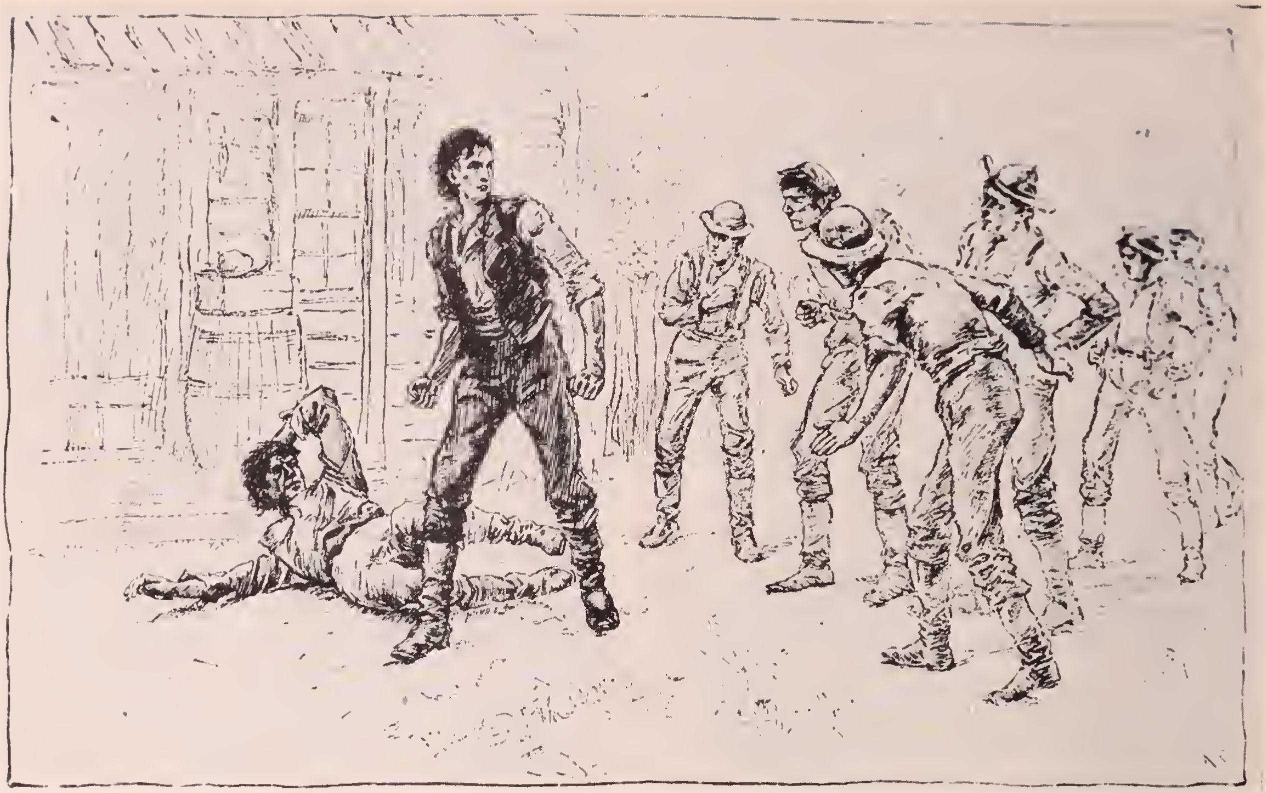


FIGURE 3. Lincoln, champion wrestler. In his youth, Lincoln beat toughest frontier wrestlers. If he had had connective-tissue deficiency of Marfan syndrome, his opponents could have bent his fingers, wrists, and even elbows back and escaped from his grasp, with greatest of ease, but they could not. His head would inevitably have hit ground many times, yet his lenses and retinas did not detach or dislocate even with this trauma. (Credit, Noah Brooks)

slender.[11]

Dolichocephaly

Another common deformity in patients with the full-blown Marfan syndrome is elongation of the skull. The accompanying elongation of the eye sockets is thought to add to the tension on the eyeballs; this helps brings about the lens dislocations and the detachments of the retinas that are so frequent in patients with the Marfan syndrome.

Lincoln's head, judged from the life masks made of him, was not abnormally elongated. On the contrary, he wore a hat size of only seven and one quarter, which is smaller than usual for a man of six feet, four inches, in height.

Here, again, we have a measurement that is a strong argument against the diagnosis of the Marfan syndrome.

The connective-tissue deficiency of the hands of people with Marfan's syndrome would make it impossible for them to grasp a heavy wrestling opponent and hold him down; the opponent could take each finger of the man with Marfan's syndrome and bend it backward. In fact, he could bend back the entire wrist and arm and thus escape from any "hold" at all, even if the man with the Marfan syndrome should succeed in wrestling him down to the ground. Lincoln's history as a champion rough-and-tumble wrestler (Fig. 3) is a powerful argument against his having the weak connective tissues of the hands and arms of a patient with the Marfan syndrome. Anyone who has wrestled knows that a height of six feet, four inches, is enough of a disadvantage to overcome, and that lax joints, in addition, would have made it impossible to be the champion wrestler that Lincoln was.

The lack of muscle mass is another characteristic of patients with the Marfan syndrome (mentioned in the original description[3]), but Lincoln's nude body on the autopsy table was so muscular that it elicited a spontaneous comment by one of the physicians who assisted with the autopsy.[12,13] Edward Curtis, M.D.,[14] writing to his mother within the week after the autopsy, stated as follows:

> I was simply astonished at the showing of the nude remains, where well rounded muscles built upon strong bones told the powerful athlete. Now did I understand the deeds of prowess recorded of the President's early days.

Did Lincoln have pectus excavatum?

Evidence for this "diagnosis" does not exist, as far as I can determine, despite allegations by one of the authors[2] that it might have been present. At the autopsy, his nude remains were viewed by those present, and no mention of pectus excavatum or pectus carinatum was made. On the contrary, Curtis[14] stated his surprise at seeing such "powerful

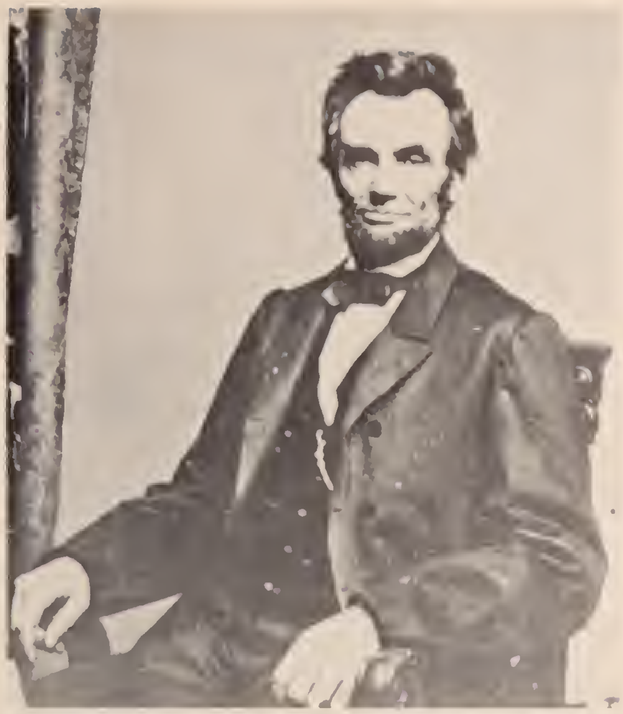


FIGURE 4. Lincoln's chest not depressed. Photograph shows Lincoln's chest well rounded, no sign of pectus excavatum or of scoliosis, both so common in Marfan syndrome patients. (Credit, Matthew Brady)

musculature built upon strong bones."

It is true that William Herndon[15] (Lincoln's law partner) once said of him in his later years that "Mr. Lincoln was six feet four inches high, thin, sinewy and raw boned, thin through the breast to the back and narrow across the shoulders." These words could describe many men who are six feet four inches tall, however, and his chest was certainly not flat as can actually be seen in Figure 4, which shows a perfectly well-rounded and normal-looking chest and sternum area. Sandburg[15] once referred to his legs as reminding him of a great spider, possibly a "Daddy Long Legs" type; however, he did not, as did Marfan,[3] characterize his fingers as being abnormally thin (arachnodactyly refers to fingers, not legs).

Eye defects in Marfan syndrome

People with Marfan syndrome also tend to have a weakness of the connective-tissue ligaments that support the lenses of their eyes. Their skulls elongate as they grow, putting stresses on their eyeballs. Thus they are especially prone to have dislocations of the lenses; a very substantial proportion of them, especially the active men, have this condition and thereafter have a severe impairment of vision, necessitating the wearing of thick eyeglasses as compensation. Lincoln, on the other hand, obviously had no such dislocation, despite the fact that he was kicked in the forehead by a horse and knocked unconscious, as a youth.[16] It was inevitable that he was slammed to the hard ground many times as a wrestler (Fig. 3). He had fired, with great skill, a large-calibre military carbine, which he said he had done many times, with a severe head-jolting recoil (Fig. 5); all these things were done with no dislocation of the lens or detachment of the retina. If his lens supports had been weak, they would surely have given way long before he was 56 years of age, with this kind of rough treatment.

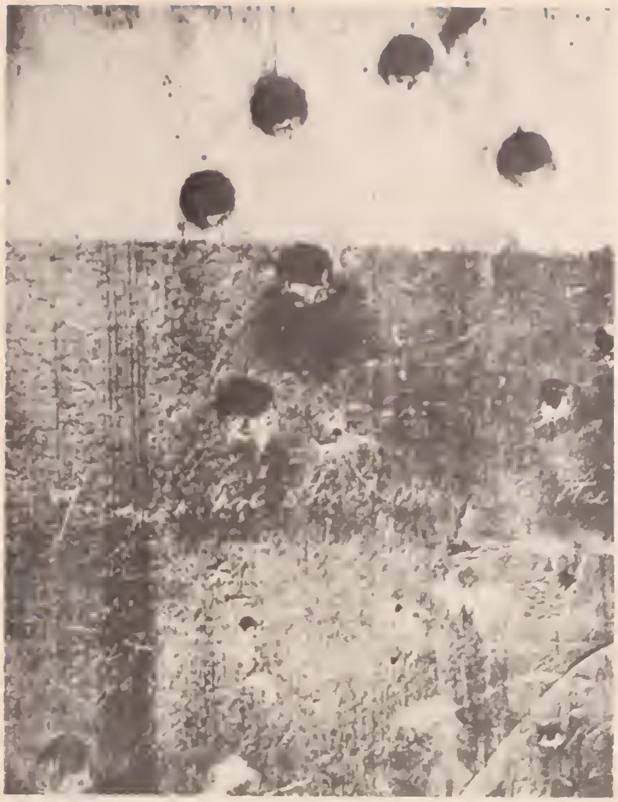


FIGURE 5. Seven bullet holes in board used as target by Lincoln in firing seven consecutive shots. Lincoln was testing very important 50-caliber Spencer carbine that helped to shorten Civil War. His visual acuity was obviously superior, rather than impaired; he stated that he had fired heavy-caliber rifles many times. Head-jolting recoil of these large-caliber rifles is kind of trauma that dislocates lenses and detaches retinas in patients with elongating eyeballs of Marfan syndrome, yet Lincoln had had no such trouble. (Credit, *Saturday Evening Post*[17])

Lincoln was farsighted (persons with Marfan's syndrome are nearsighted)

Lincoln's reading glasses were somewhat "strong," but were within the range (plus 6.75 diopters) used for reading by other 56-year-old men who had no electric lights to read by. He inspected reports and wrote incessantly. During his administration, he personally signed all the military commissions of the many thousands of Army and Navy officers, as well as the many thousand papers of officials whose documents of appointment and discharge came to his desk for signature. His handwriting remained precise and admirable, all through his life.

The occasional tendency of his left eye to roll up

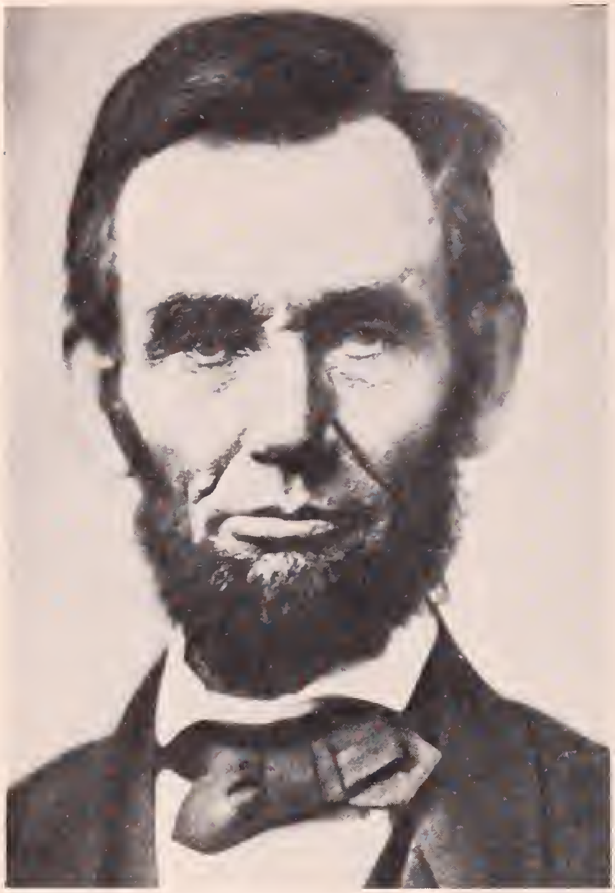


FIGURE 6. Lincoln's slight eye deviation. Very slight (even questionable) upward deviation of Lincoln's left pupil can be seen in this famous portrait by Alexander Gardner taken of Lincoln at age 54. It is certainly not dislocated-lens type of defect so characteristic of Marfan syndrome. (Credit, Alexander Gardner, National Archives, Washington, D.C.)

a bit was so slight, and even questionable, that it is barely discernible in this famous photograph by Alexander Gardner, taken in 1863 (Fig. 6); it obviously was due to a mild muscular weakness rather than to a dislocated lens and was obviously of minor degree. He had had only one episode of double vision and had tried repeatedly to duplicate it without success.

Men with the classic Marfan syndrome are nearsighted; this is due to their eyeballs becoming elongated, as their skulls elongate. Lincoln was just the opposite. This is another powerful argument against Lincoln having the Marfan syndrome.

Visual acuity

Lincoln was perfectly able to fire a heavy military rifle with open sights, with great accuracy, as recently as 20 months prior to his death. We know this because Christopher Spencer, the inventor, brought forth a repeating carbine of such advanced design that it proved to be of great value to the Northern Army.[17] Sherman's troops used it in the campaign to cut the South in half and it was so effective that the Southerners characterized it as practically an immoral weapon. They said the Yankees could "load up on Sunday and shoot all week" with it, and this was just not fair.[17] However, the lethargy of government bureaucracy in Washington was just as bad then as it is now. The Union supply officers steadfastly refused to accept this new invention, preferring to stick with the tried-and-true, single-shot, muzzle-loading muskets, then on order. When Spencer was able to reach Lincoln himself, the President was intrigued and recognized the merit of the new firearm so quickly that he and the inventor walked out to where the Washington Monument was being built to fire at a target made from an old board from the White House lumber pile. Lincoln spoke of having fired many of the high-powered rifles of the day, all of which had an abrupt, severe recoil which would have jarred the eyeballs violently. Lincoln's accuracy was excellent, considering the relative crudeness of this weapon. A photograph of the board with the seven bullet holes in it, which he made with seven shots, is displayed in Figure 5.[17] It would seem extremely doubtful that a 54-year-old man with the Marfan syndrome could perform this feat of visual acuity, in addition to tolerating the hard jolting recoil of each shot; this could have led to dislocation of his lens, or detachment of his retina, if he had indeed had the Marfan syndrome.

Thus we see on actual inspection that the eye lesion of Lincoln was so minimal that it was of absolutely no value in proving the diagnosis of the Marfan syndrome (Fig. 6). Many people, with or without the Marfan syndrome, have this degree of muscle weakness. It has been stated that various relatives of Lincoln had poor eyesight, or a poorly functioning or missing eye, but in the rough-and-tumble frontier community this was so common that it in no way substantiated the existence of a Marfan-syndrome condition in Lincoln, as I see it. The fact that the distance between Lincoln's outstretched arms and fingertips exceeded his height is a finding that is by no means confined to patients with the Marfan syndrome. In the classic article on this point, Pyeritz and McKusick[6] have stated as follows, "Each of the clinical features of the Marfan syndrome occurs with variable frequencies in the general population and it is to be expected that several will occur together by chance alone, in some cases. The overlap between the normal and the Marfan syndrome subjects was so great that it makes this an unreliable point of diagnosis.

Family History

Gordon[1] speculated that Lincoln's Marfan syndrome trait might have descended to him through his mother, whereas Schwartz,[2] the enthusiast, claims that it descended to him through his father. He described a patient with the Marfan syndrome who claimed a distant relationship to Lincoln. Although it is true that this condition is often familial, the overlap in the measurement of very tall, lanky people

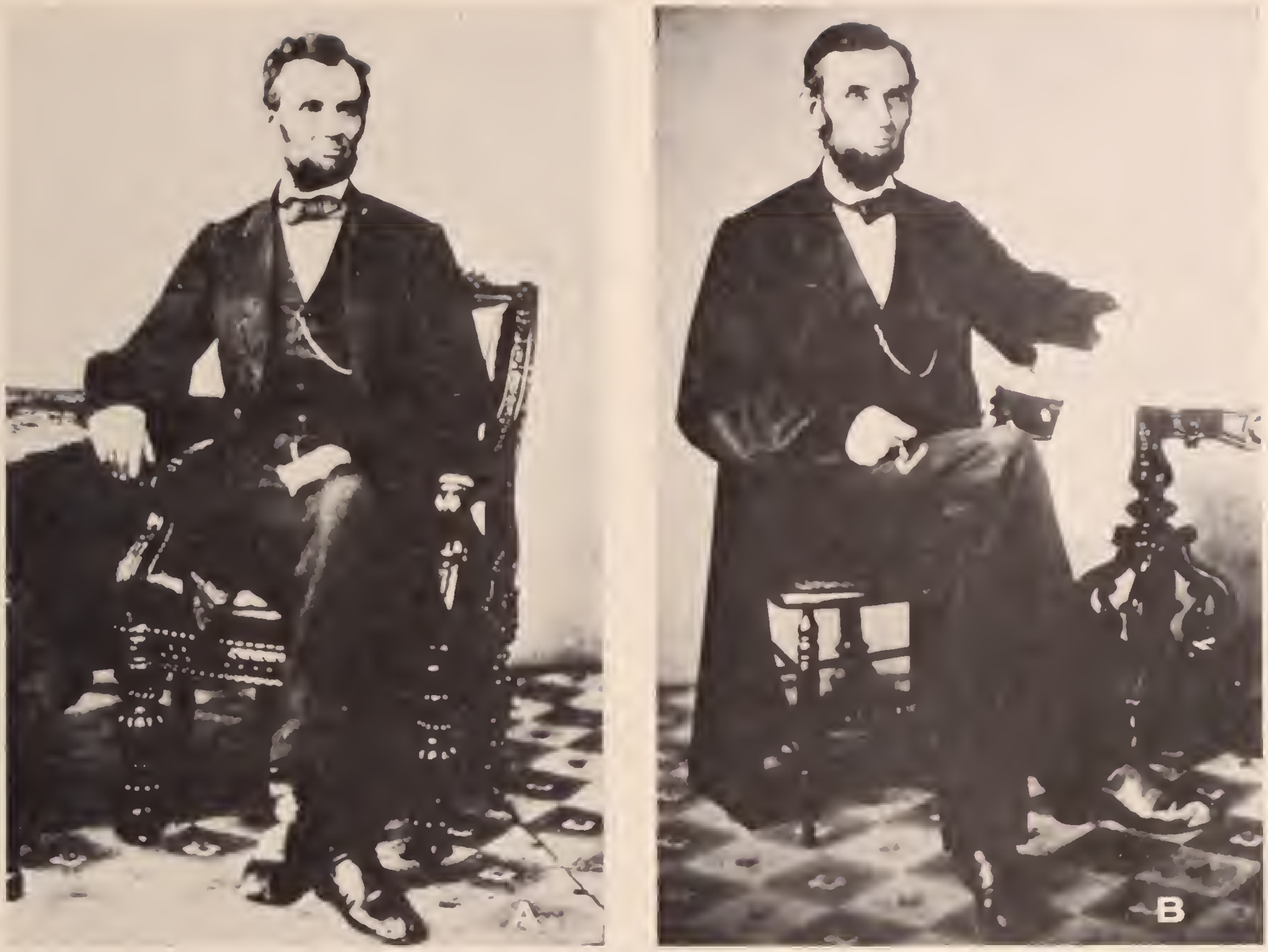


FIGURE 7. Blurring of feet due to being out of focus. (A) Famous photograph in which Lincoln, himself, noted that toe of his boot, much closer to camera than to this face, was more blurred, as is evident. Someone suggested that he cross his legs and would see that toe of his boot jiggled from his normal pulse, as is indeed true. In this instance, however, it is far more likely that blurring was due to wide-lens aperture with resulting poor depth of focus, than to pulsations of foot. Note that even foot resting on floor is slightly out of focus. Photograph demonstrates that foot was often out of focus even if resting on floor. It was this possibility that foot was jiggling because of excessive pulse pressure, seized on by critics to indicate aortic valve disease in Lincoln. This seems to me to be total inadequate basis on which to make diagnosis of aortic insufficiency where blurring of foot was actually due to optical effect, rather than to pulsations of arteries in leg. (B) Toe closest to camera often blurred by being out of focus in old, very lengthy time exposures where lens aperture was widely open; this decreased depth of focus. This was sometimes also true of both feet, even when one foot was firmly on floor, as in this photograph. Note that plane of Lincoln's face is only plane that is sharp and in focus. (Credit, Alexander Gardner)

and people with Marfan's syndrome voids the issue. The issue here is whether or not Lincoln himself fell into the Marfan syndrome category, and no evidence has been offered that he did, as far as I can determine.

Lack of evidence for aortic insufficiency

The only evidence offered to support the speculation that Lincoln had aortic insufficiency is the blurred image of Lincoln's left toe, as he sat with his legs crossed for one of Matthew Brady's long time-exposures on November 8, 1863, with his one foot protruding far out toward the camera (Fig. 7A). This fact is used as the only support for the claim that Lincoln had aortic insufficiency, which turns out to be no support at all, as we shall see.

One of the other connective-tissue defects to which Marfan syndrome patients are particularly liable is prolapse of the aortic valve due to connective-tissue weakness. This is a serious malady of which Lincoln had no actual signs, as far as I could research, and I am puzzled as to how this "diagnosis" was reached. As far as I can determine, the only observed fact on which this speculation is based is that when Lincoln sat with his legs crossed and the toe of one boot extended directly toward the camera for one of Brady's lengthy time exposures of 12 to 15 seconds, he noticed that the toe that was closest to the camera was slightly blurred (Fig. 7A). First of all, when you reproduce this position, you find that the toe of that foot would have been at least three feet closer to the camera than the plane of Lincoln's face, on which the camera was focused. Lincoln's toe might therefore have been considerably out of focus, as it is in Figure

7. When you look closely, you find that the toes of both boots are out of focus, even where one rests on the floor. It is true that if you cross your legs in this position, you will find that the tip of your toe bounces up and down very slightly but very definitely, with every pulse; this is true even if you do not have high blood pressure or a high pulse pressure.

Actually, if you examine Figure 7 more closely, you can see that even the opposite toe, which is resting on the ground, is also blurred by being out of focus. This clearly demonstrates that the blurring of the toe of his boot is primarily due to its being out of focus, not to any alleged aortic insufficiency.

If there are other evidences of aortic insufficiency, I have not been able to find them, and would welcome being informed of them by those Marfan syndrome proponents from whom I am sure I will hear with all possible alacrity.

The fact that other family members were not tall and thin has been passed off with the contention that they were "formes frustes" of the Marfan syndrome; this is merely a convenient way out. Again, however, authorities Pyeritz and McKusick,[6] writing in the *New England Journal of Medicine*, quoted a recent study of 18 cases called "formes frustes" because of severe aortic disease resembling that of the Marfan syndrome; it failed to detect a single person who conformed to the classic Marfan syndrome.

The fact has been raised that Lincoln complained of chilly feelings or feeling poorly or having depressions at various times. We know that he had recurring malaria, and it seems to me that he was entitled to these symptoms, considering the severe stresses under which he lived, the monumental decisions he undertook, and the miserably uncomfortable living conditions of war-time Washington. The White House was bordered by swamps, and during the summer months the flies were so bad as to compel him to leave the White House at all possible opportunities for the Old Soldier's Home on the outskirts of Washington. The winters without central heating must have been truly miserable. The symptoms he describes are typical of those my own grandparents described in their relatively stressless farmhouse life of the same period. I can see nothing whatsoever in these symptoms to indicate that Lincoln had the Marfan syndrome.

The fact that Lincoln lived and remained sturdy to age 56 was in itself an unlikely "old age" for a man with the classic Marfan syndrome to attain, in that era.[18] The average age of death in Murdoch's[18] series was 32 years; in the series of Hirst it was 30 years.[18] Old age is rare, although not impossible.

Summary

There is insufficient evidence to support the diagnosis of aortic insufficiency, of dislocated lens, or of any other severe ocular troubles in Mr. Lincoln. The dimensions of Lincoln's body were within the normal range of those for tall, lanky persons. His record of great muscular strength as a champion wrestler and the lack of symptoms that would suggest connective-tissue deficiency make it impossible to pin the diagnosis of the Marfan syndrome on Lincoln himself, as I see it. The most impressive exhibits I have been able to discover to date are the plaster casts of his hands, taken from life, which are grossly heavier boned than those of patients with the classical Marfan syndrome, when you actually place the hands of patients with the Marfan syndrome beside the casts for comparison. It is my firm belief that Lincoln himself did not have the Marfan syndrome. He was a big, tough, muscular frontiersman with no evidence of a connective-tissue, muscular, or bony defect.

As a child, Dennis Hanks (Lincoln's cousin and boyhood playmate) described Lincoln as a "powerful boy, round, fat, plump, well-made and well proportioned."[19] "In rasslin, running, an' hoss-back ridin' and log rollin,' and railsplittin,' he could beat everybody. You'd 'a' thought there was two men in the woods when he got inter it with an axe."[20] His friend Nat Grisby called him "stout, withy and wiry."[19] This is not the description of a man with the Marfan syndrome. Marfan syndrome people are frail, often smart, but physically fragile.

In short, Lincoln did not have arachnodactyly, as do patients with the classic Marfan syndrome. Lincoln did not have joint laxity, as do patients with the classic Marfan syndrome. Lincoln did not have fragile connective-tissue supports for the lenses of his eyes, as do patients with the classic Marfan syndrome.

Lincoln was farsighted, not nearsighted (as are persons with the classic Marfan syndrome). This, in itself, is a powerful argument against the Marfan syndrome. Lincoln showed no demonstrable signs of aortic disease; his "blurred foot" was merely the result of an out-of-focus portion of a photograph.

The familial case of the one boy with the Marfan syndrome who is said to share an ancient common ancestor with Lincoln is so solitary and so distant that it is unconvincing, at least to date.

Although we commend Dr. Gordon[1] on an interesting suggestion, we call on him and Dr. Schwartz[2] to reexamine the actual evidence and to stop encouraging the avid media and the uncritical authors who repeat and thereby perpetuate this unsupported diagnosis. The evidence clearly indicates that Lincoln himself did not belong in the Marfan syndrome category. Borit has said about those who study Lincoln, "Idolatry we do not need, but neither do we need to make our great men small."

Certainly we should not make it an "obsession"[4] to pin the diagnosis of Marfan syndrome on Abraham Lincoln.

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Plague still exists in western states

Plague—the cause of "Black Death" that wiped out entire populations in the Middle Ages—still exists in the United States and is increasing.

Today, thanks to antibiotics, it seldom kills.

In the 1970s, 105 cases of plague were reported, a 350 percent increase over the 1960s, Mark Edward White, M.D., of the Centers for Disease Control unit at Fort Collins, Colorado, reports.

Writing in the May issue of an American Medical Association publication, Dr. White points out that plague infection is spread by bites from fleas that escape from infected rodents and bite humans. Although the patients are seriously ill, with appropriate modern treatment most recover.

Dr. White describes the case of an infant only a few days old who became infected following the appearance of a small red "bug bite" on the right knee. Scientists found infected rodents near the patient's home, and presumed that one of the family's three dogs and two cats carried a plague-infected flea into the child's home. The other family members remained healthy and there were no further cases in the neighborhood.

Since domestic animals can carry the rodent fleas long distances, a patient need not be in direct contact with rodents to become infected, he points out.

In the United States rodent plague is limited to the western states, and human cases since 1970 have been in New Mexico, Arizona, Colorado, Utah, Nevada, California, Oregon, and Wyoming.

Most often the plague victim has hardened swellings of lymph glands that are called bubos. Hence the name "bubonic plague." But some patients do not develop bubos, thus confounding an often difficult diagnosis.

The most serious complication is pneumonia. The patient may then infect others from coughing and spitting. Children sometimes also get meningitis. Streptomycin is the preferred drug for treatment of plague, Dr. White says. The patient usually begins to get better in one to two days.

The report is in the American Journal of Diseases of Children.

Medical Malpractice Legislation

In the United States

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From the Research and Development Division of the Medical Society of the State of New York.

The accompanying chart was originally compiled to provide Comprehensive Medical Malpractice Legislation background data for interested parties in response to the proposed inceases in medical liability rates in New York State. Interest in the chart grew from a few parties to a number of parties. The updating and verification of this information was completed on a state-by-state level.

As noted in the key, an "*" indicates an enactment and an "x" indicates a repeal of the statute or declaration of its unconstitutionality by the state supreme court. The number next to the asterisk or x indicates the year in which the action was taken.

The information contained on this chart and in the definitions was obtained from the American Medical Association State Health Legislation Bulletins. Updating and verification of data procedures consisted of contacting each state medical society's legislative and/or legal division, and the A.M.A. staff attorney, Jeffery Stokols, J.D. Additional legal assistance was provided by Paul Tagliaferro, J.D., of the Medical Society of the State of New York, and William Isele, J.D., of the A.M.A. Health Law Division.

Explanation of statutes

1. **Ad Damnum.** This clause is the part of a plaintiff's pleadings that states the amount of monetary damages and other relief requested by the plaintiff in a court action.

2. **Advanced payments.** In certain situations where some liability is apparent, the defendant's insurance company will often advance to the plaintiff certain amounts to help alleviate economic hardship, with such amounts to be offset against any award or settlement the plaintiff ultimately receives.

3. **Arbitration.** This relates to a voluntary procedure whereby patients and health care providers may enter into written agreements for the submission of any medical malpractice claims to binding arbitration. This procedure is an alternative to, and in lieu of, trial by jury and is not merely a condition precedent to trial.

4. **Attorney fee regulation.** The most common arrangement for payment of plaintiff attorney fees in medical malpractice cases is the "contingent fee." Under this type of arrangement the attorney receives as his fee an agreed percentage (commonly 30 to 50 percent) of any final award or settlement made to the plaintiff, generally after the legal expenses such as filing fees, expert witness fees, travel expenses, and so forth have been deducted. However, if the plaintiff loses in court, the attorney does not receive any compensation.

Legislation enacted within the last couple of years regulating plaintiff attorney fees has taken two different courses. One course legislates a sliding scale for contingent attorney fees, most often expressed in terms of a percentage of the award. Under this arrangement, as the amount of the award increases the percentage permitted as contingent fees decreases. The other course provides that the court review an attorney's proposed fee and approve what it considers to be "reasonable fee."

5. **Awarding costs, expenses and fees.** Legislation designed to deter the pursuit of frivolous medical malpractice claims provides that when one party to the action has been found to have acted frivolously in bringing the suit, he may be found liable for payment of the other party's reasonable attorney and expert witness fees in addition to court costs.

6. **Burden of proof.** The "burden of proof" is that burden required to be met by the plaintiff in order for him to prevail in his cause of action.

7. **Certificate of meritorious claim.** This 1978 California statute (as amended with very minor changes in 1979) requires that medical malpractice complaints be accompanied by a certificate executed by the plaintiff's attorney stating that he has reviewed the case, has consulted with a physician and surgeon or dentist that he believes is reasonably knowledgeable in the relevant issues, and that the attorney has determined that there is reasonable and meritorious cause for filing the action.

8. **Channeling of medical malpractice insurance by hospitals.** This legislation permits hospitals to purchase medical malpractice insurance to cover not only potential liability of the hospital and its employees, but also to purchase insurance to cover physicians on the medical staff.

9. **Collateral source provisions.** The collateral source rule is a rule of evidence that prohibits the introduction into a trial evidence containing any indication that a patient has been compensated or reimbursed for his injury from any source other than the defendant, such as

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* Director.

private health insurance or workmen's compensation. Since this type of evidence is not presented to a jury, the plaintiff may receive double compensation for the same injury. A number of states have enacted legislation in an attempt to limit such duplication of payments.

10. **Collateral sources (modified).** Rather than permit the fact of any collateral source payment to be admissible as evidence, there will be an offset against any award given by the jury in the amount of any collateral source payments received by the plaintiff. Thus, the jury, having no knowledge of any collateral source payments received by the plaintiff, makes its award independent of such amounts. The amount of any collateral source payments received is then deducted from the jury award in determining the amount of the judgment.

11. **Countersuits.** Several state medical societies have undertaken to provide various forms of assistance to physicians who think they have been the victims of frivolous medical malpractice suits. Such assistance has included, in some instances, assistance with the preparation of a countersuit. Such actions, as a rule, may only be brought after the completion of a malpractice action, and only then upon a verdict of nonliability.

12. **Excess recovery funds.** An 'excess recovery fund' or patient compensation fund is a government-operated mechanism that is established to pay that portion of any judgment or settlement against a health care provider which is in excess of a statutorily designated amount.

13. **Health care mutual insurance companies.** (*Captive companies.*) A more recent trend to assure the availability of medical malpractice insurance has been legislation authorizing the formation of health care mutual insurance companies, which are often referred to as "captive companies." Most often formed by state medical societies, these captive companies are private, physician-owned-and-operated insurance companies which are authorized to write medical malpractice insurance for the benefit of their members.

14. **Hospital risk management committees.** The establishment of an extensive risk management program in all types of health care facilities, to be administered by a facility-designated "risk manager." The statute requires that the risk management program provide for "the development and implementation of an incident reporting system based on the affirmative duty of all health care providers and all agents and employees of the health care facility to report injuries and adverse incidents to the hospital risk manager; and the development and implementation of a program designed to provide compensation to certain persons who are determined to have sustained a compensable injury pursuant to the provision of . . . this Act."

15. **Incident and claim reporting.** Legislation requiring that malpractice claims, settlements, and/or judgments be reported either to the insurance commissioner or to the appropriate licensing board.

16. **Informed consent.** The doctrine of "informed consent" imposes a duty upon a health care provider to disclose pertinent information to a patient regarding the nature and purpose of a proposed medical treatment and the risks associated with such treatment. The doctrine of Informed Consent has been formulated through various court decisions. The statutes generally require that consent to medical treatment be in writing, and impose a duty on a physician to either disclose those facts and circumstances which a "reasonable physician" would have disclosed in the same or similar circumstances; or they require the physician to disclose such facts and risks according to what a "reasonable patient" could comprehend.

17. **Itemized verdicts.** In most jurisdictions, jury verdict awards for medical malpractice are rendered as a lump-sum award without distinguishing the various elements of the verdict, such as medical expenses, lost income, and general damages (pain and suffering). It is often extremely important to ascertain the amounts awarded for past and future losses, and there is no way of doing so unless state law permits itemized verdicts.

18. **Joint underwriting associations.** The most common legislative response to assure that there is an entity available to provide medical malpractice insurance has been the establishment or provision for the establishment of nonprofit JUA's (joint underwriting associations). While the definition of a JUA may vary from state to state, it is most often defined as a pooling arrangement composed of all commercial liability insurers doing business within the state.

19. **Limitations on cancellation of policies.** A problem sometimes encountered by physicians is the sudden cancellation of medical malpractice insurance as a result of an adverse judgment or settlement. Legislation designed to ameliorate the problem of sudden medical malpractice insurance cancellations require that a written notice of cancellation or termination of medical malpractice insurance policy be sent in advance of the termination date.

20. **Limitations on recovery.** Legislation which establishes maximum ceilings on the amount of damages that may be recovered in medical malpractice cases.

21. **Locality rules.** "Locality rules" in medical malpractice cases, which prescribe the standard of care meaning other similar physicians or health care providers in a designated geographic area.

(a) *Standard of care.* The "standard of care" in a medical malpractice action is that level of care to which a health care provider is held accountable to a patient, and is based upon the prevailing level of care practiced within a particular locality (community, state, or national).

(b) *Expert witness.* Because of the importance expert witnesses play in the outcome of medical malpractice actions, several states have enacted legislation relative to the qualifications and use of expert witnesses.

22. **Mandatory insurance coverage.** A number of states have enacted legislation within the last couple of years requiring that all physicians submit either proof of insurance, sometimes including self-insurance, or proof of financial responsibility within certain specified dollar limitations as a condition of licensure or relicensure within that state.

23. **Notice of intent to sue.** An individual, prior to filing a medical malpractice action, has to notify the physician or other health care provider in writing of his intention to sue and of the date of the alleged malpractice. The commencement of an action is then prohibited for a specified dollar limitation(s) as a condition of licensure or relicensure within the state.

24. **Periodic payments.** Under a periodic payments system, the payments, won by a patient in a judgment are made over the actual lifetime of the plaintiff or for the actual period of disability.

25. **Premiums.** No insurer who provides professional liability insurance for physicians and surgeons or dentists

MEDICAL MALPRACTICE LEGISLATION ENACTED IN THE UNITED STATES: 1971–1981

	Ad Damnum T	Advance Payments T	Arbitration T	Attorney Fee Regulation: Sliding Scale T	Attorney Fee Regulation: Reasonable Fee T	Awarding Costs, Expenses And Fees T	Burden of Proof T	Certificate of Meritorious T	Collateral Sources T	Collateral Sources Modified T	Countersuits T	Informed Consent T	Itemized Verdicts T	Limitations on Recovery T	Locality Rules: Expert Witness T	Locality Rules: Standard of Care T	Notice of Intent to Sue T
ALABAMA	*76	*76	*76													*76	*76
ALASKA	*76	*76	*76				*76			*76		*76				*76	*76
ARIZONA	*76			*76	x77		*76		*77							*76	
ARKANSAS	x79					*79	*79						*79			*76	*79
CALIFORNIA	*74		*75	*75				*78	*75					*75			*75
COLORADO												x77					
CONNECTICUT		*76	*77														
DELAWARE		*76			*76		*76		*76			*76			*76	*76	*76
FLORIDA	*75					*80			*76			*75	*76		*76	*76	*76
GEORGIA	*76																
HAWAII	*76	*76		*77	x77							*76					
IDAHO					*76		*76			*76		*76		x81	*76	*76	
ILLINOIS	*76		*76							*76			*76	x77			
INDIANA	*76	*76			*76									*76			
IOWA	*76			*76						*76		*76					
KANSAS									x80								*76
KENTUCKY	*76	*76										*76					
LOUISIANA	*76		*76				*76					*76		*76	*76	*76	
MAINE	*77		*77									*77					
MARYLAND	*76	*76	*76	*76													*76
MASSACHUSETTS	*76																
MICHIGAN			*76		*76												
MINNESOTA																	
MISSISSIPPI																	
MISSOURI	*76																
MONTANA																	
NEBRASKA	*76	*76		*76		*76				*76		*76		*76		*76	
NEVADA		*76					*76					*76			*76	*76	
NEW HAMPSHIRE	x80			x80			*77			x80		x80	x80	x80	x80		x80
NEW JERSEY	*75				*75	*75	*75	*75				*75			*75	*75	*81
NEW MEXICO	*76	*76												*76			*76
NEW YORK	*76				*76				*75			*75	*76				
NORTH CAROLINA	*76	*77					*76					*76				*76	
NORTH DAKOTA							x78			x78		x78		x78			x78

KEY:

T — Tort Modification
I — Insurance Provision

*76 — Legislation enacted in 1975 and 1976
* — Legislation enacted in noted year.

Pre-Trial Screening: Nonadmissible . . . . T	Punitive Damages . . . . T	Remittitur and Additur Provision . . . . T	Res Ipsa Loquitur . . . . T	Statute of Frauds . . . . T	Statute of Limitations: Specific Medical Malpractice . . T	Statute of Limitations: Maximum Period . . . . T	Statute of Limitations: Minors . . . . T	Channeling I	Excess Recovery Funds I	Health Care Mutual Insurance Companies I	Hospital Risk Management Committee I	Incident and Claim Reporting I	Joint Underwriting Assoc. Creation of Agency I	Joint Underwriting Assoc. Exclusive Agency I	Limitation on Cancellation of Policy	Mandatory Insurance Coverage I	Premiums I	Reinsurance Exchange I	Residual Assigned Risk: State Fund I	Residual Assigned Risk: Insurance Pools I	Residual Assigned Risk: Enabling Legislation I	Respondent in Discovery I
					*76	*76						*76	*76								*77	
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					x80		x80						*76									
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x79					*76	*76	*76			*76		*76	*76									
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	*81		*75		*75		*75	*81			*75		*76					*76				
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				*76	*76	*76	*76		*76			*76				*76		x76				
			x78		*76	*76			*76	*76		*77				x78						

x Year — *Legislation repealed or declared unconstitutional by a State Supreme Court.*

MEDICAL MALPRACTICE LEGISLATION ENACTED IN THE UNITED STATES: 1971–1981

	Ad Damnum.....T	Advance Payments.....T	Arbitration.....T	Attorney Fee Regulation: Sliding Scale.....T	Attorney Fee Regulation: Reasonable Fee.....T	Awarding Costs, Expenses And Fees.....T	Burden of Proof.....T	Certificate of Meritorious.....T	Collateral Sources.....T	Collateral Sources Modified.....T	Countersuits.....T	Informed Consent.....T	Itemized Verdicts.....T	Limitations on Recovery.....T	Locality Rules: Expert Witness.....T	Locality Rules: Standard of Care.....T	Notice of Intent to Sue.....T
OHIO	*76		*76		*76					*76		*76		*76	*76		
OKLAHOMA							*76								*76		
OREGON					*76							*77				*76	
PENNSYLVANIA		*76		*76		*75				*76	x81	*76					
RHODE ISLAND	*76					*76			*76			*76					
SOUTH CAROLINA	*75														x81	x81	
SOUTH DAKOTA			*76						*77					*76			
TENNESSEE	*76			*76			*76			*76	*76	*76			*76	*76	
TEXAS	*77	*76					*77					*77		*77			
UTAH	*76					*81						*76					
VERMONT			*76				*76					*76				*76	
VIRGINIA			*76				*77							*76		*77	
WASHINGTON	*76	*76			*76		*76		*76		*77	*76				*76	*76
WEST VIRGINIA		*76															
WISCONSIN	*76	*76			*76	*77	*75						*75				*76
WYOMING		*77							*77								
Number of states currently having that Legislation	27	19	12	11	11	4	15	1	9	12	2	24	4	14	12	17	13

KEY:

T — *Tort Modification*
I — *Insurance Provision*

*76	— *Legislation enacted in 1975 and 1976*
*	— *Legislation enacted in noted year.*

Pre-Trial Screening: Nonadmissible ....T	Punitive Damages ....T	Remittitur and Additur Provision ....T	Res Ipsa Loquitur ....T	Statute of Frauds ....T	Statute of Limitations: Specific Medical Malpractice ..T	Statute of Limitations: Maximum Period ....T	Statute of Limitations: Minors ....T	Channeling I	Excess Recovery Funds I	Health Care Mutual Insurance Companies I	Hospital Risk Management Committee I	Incident and Claim Reporting I	Joint Underwriting Assoc. Creation of Agency I	Joint Underwriting Assoc. Exclusive Agency I	Limitation on Cancellation of Policy	Mandatory Insurance Coverage I	Premiums I	Reinsurance Exchange I	Residual Assigned Risk: State Fund I	Residual Assigned Risk: Insurance Pools I	Residual Assigned Risk: Enabling Legislation I	Respondent in Discovery I
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				*76	*76	*76	*76					*76	*76								*76	
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*75					*79	*79	*79		*76			*76				*76				*76		
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4	5	1	10	14	38	22	21	2	16	17	2	37	33	6	13	15	1	2	6	3	8	1

x Year — *Legislation repealed or declared unconstitutional by a State Supreme Court.*

shall increase the premium for such insurance, impose a surcharge with respect to such insurance, or otherwise require additional compensation for such insurance of institute or increase a deductible amount payable by the insured because a notice of intention to commence an action has been given, unless a complaint has been served on the physician and surgeon or dentist with respect to such action.

26. **Pre-trial screening panels.** Pre-trial screening panels (a panel comprised of members dictated by statute) are generally conditions precedent to trial and are not in lieu of a court trial. The statutes generally provide that the plaintiff must file a notice of his claim with the pre-trial screening panel prior to filing an action in court.

27. **Professional liability reinsurance exchange.** Basically this is an organization comprised of all insurance carriers writing a certain class of insurance within the state; it is established to provide reinsurance for medical malpractice policies written by member companies. Policies, when written by member companies, may be ceded to the exchange. The primary difference between a reinsurance exchange and a JUA is that in a reinsurance exchange program, the responsibility for underwriting and servicing the primary policy is with the carrier writing the policy, whereas in a joint underwriting association program the JUA has that responsibility.

28. **Punitive damages provisions.** Punitive damages are damages over and above actual damages suffered by a plaintiff, and are intended solely as a penalty against the defendant.

29. **Remittitur and Additur Provision.** With any malpractice action where damages are awarded to the plaintiff it is the responsibility of the court, on proper motion, "to review the amount of such award to determine if such amount is clearly excessive or inadequate in light of the facts and circumstances which were presented to the trier of fact. If the court finds that the amount awarded is clearly excessive or inadequate, it shall order a Remittitur or Additur as the cause may be. If the party adversely affected by such Remittitur or Additur does not agree, the court shall order a new trial concerning the issue of damages only."

30. **Residual "Assigned Risk" arrangements.** Another legislative approach to the problem of assuring that adequate liability insurance is available has been the formation of residual "assigned risk" organizations. These types of residual "assigned risk" organizations are designed to assure providers availability of adequate protection when they cannot obtain malpractice insurance in the market place, either because such insurance is unavailable or because the provider has been classified as uninsurable.

(a) *State fund.* In most cases, a residual authority state fund is administered by a state appointed risk manager who is empowered to write insurance and obtain reinsurance for the fund. Most such funds are designed to be financially self-supporting through premiums and assessments of members.

(b) *Insurance pools.* A few states provide for standby pools of private insurance carriers to provide insurance to those who are otherwise unable to obtain it on the open market; these pools are similar in many respects to joint underwriting associations.

(c) *Enabling legislation.* Enacted legislation which delegates authority to the state insurance commissioner to promulgate an "assigned risk" plan to insure the availability of liability insurance in the medical malpractice area.

31. **Res Ipsa Loquitur.** Under this common law doctrine, as it was originally applied, when a plaintiff could demonstrate that his injury occurred while the instrumentality causing the injury was under the exclusive control of the defendant and which, if used properly, would not, in the mind of the reasonable man, ordinarily cause injury, the inference of negligence would be created. If the defendant failed to rebut this inference, the jury would be permitted, but not compelled, to accept the inference of negligence as a basis for imposing liability on the defendant.

In more recent years, courts in a number of states have expanded the applicability of the doctrine of Res Ipsa Loquitur, and also have increased the effect of its applicability from that of a mere inference to that of a presumption, which, if not rebutted, will allow the jury to reach no other finding than guilty.

32. **Respondent in discovery.** In preparing to file a lawsuit, an attorney representing the plaintiff often employs a "shotgun" approach by naming as defendants various persons and entities who have come in contact with the plaintiff during the period in which the alleged malpractice occurred.

33. **Statute of frauds.** (*Agreements assuring results.*) "Statutes of frauds" are rules of law which require that certain transactions and agreements be in writing and signed by the person to be held liable in order to be enforceable in a court of law.

34. **Statute of Limitations.** A Statute of Limitations is a law cutting off a cause of action, including medical malpractice actions, after the expiration of a specified time period. With respect to medical malpractice, the statute can begin to run from either the date of occurrence or the date the alleged malpractice was or should have been discovered.

(a) *Specific medical malpractice statutes of limitations.* Every state has a Statute of Limitations applicable to medical malpractice actions. However, in some states the statute is a general one, applicable in all tort actions.

(b) *Maximum statute of limitations period.* The Statute of Limitations for malpractice actions begins to run only upon discovery of the injury. Elimination of a "long tail" may be made by placing an absolute maximum time period within which medical malpractice suits may be brought.

(c) *Minors.* Most state Statutes of Limitations provide that if an injury is incurred by a minor, the statute is tolled (stops running) on the minor's cause of action until he reaches the age of majority. Several states have amended their Statutes of Limitations.

Further information about state-by-state and statute breakdown and the statute definitions is available by contacting:

Deborah Siegel, Director
Research and Development
Medical Society of the State of New York
420 Lakeville Road P.O. Box 5404
Lake Success, N.Y. 11042
(516) 488-6100

U S POSTAL SERVICE

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(Required by 39 U.S.C. 3685)

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Philip H Keating

PS Form 3526 (Page 1)
June 1980

(See instruction on reverse)

Obituaries

Silvano Arieti, M.D., of New York City, died on August 7 at the age of 47. Dr. Arieti received his medical degree from the University of Pisa in 1938. He was an associate psychiatrist at Metropolitan Hospital. Dr. Arieti was a Diplomate of the American Board of Neurology and Psychiatry and a member of the American Psychiatric Association, the American Academy of Psychoanalysis, the American Association of Neuropathologists, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Milton Aronowitz, M.D., of Albany, died on August 9 at the age of 89. Dr. Aronowitz graduated in 1917 from Albany Medical College. He was an attending physician and surgeon in industrial medicine at Albany Medical Center Hospital. Dr. Aronowitz was a member of the American Occupational Medicine Association, the New State Society of Industrial Medicine, the Albany County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Meyer Harry Freund, M.D., of New York City, died on August 23 at the age of 94. Dr. Freund graduated in 1909 from Long Island College Hospital. He was a consulting proctologist at Sydenham Hospital. Dr. Freund was a Diplomate of the American Board of Surgery, a Diplomate of the American Board of Colon and Rectal Surgery, a Fellow of the American College of Surgeons, and a member of the American Society of Colon and Rectal Surgery, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Frank Dormer Jennings, Jr., M.D., of Brooklyn and Manhasset, died on August 26 at the age of 65. Dr. Jennings graduated in 1940 from Long Island College of Medicine. He was an attending dermatologist at The Methodist Hospital, a consulting physician at Holy Family Hospital, and a member of the visiting staff in dermatology at Kings County Hospital Center. Dr. Jennings was a Diplomate of the American Board of Dermatology, Inc., and a member of the American Occupational Medicine Association, the American Academy of Dermatology, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Herbert V. Krutz, M.D., of Nyack, died on August 18 at the age of 83. Dr. Krutz received his medical degree from the University of Munich in 1923. He was a senior attending in medicine at Nyack Hospital. Dr. Krutz was a Fellow of the American College of Gastroenterology and a member of the New York Academy of Gastroenterology, the Clinical Society, New York Diabetes Association, the Rockland County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Saul F. Livingston, M.D., of Brooklyn, died on September 2 in his 84th year. Dr. Livingston graduated in 1922 from Columbia University College of Physicians and Surgeons. He was a consulting breast surgeon at Jewish Hospital and Medical Center of Brooklyn. Dr. Livingston was a Diplomate of the American Board of Surgery, a Fellow of the American College of Surgeons, and a member of the Pan American Medical Association, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Thomas Leo McNamara, M.D., of Corning, died on July 15 at the age of 94. Dr. McNamara graduated in 1911 from Syracuse University College of Medicine. He was a member of the Steuben County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Paul K. Maloney, M.D., of Brooklyn, died on August 31 in his 78th year. Dr. Maloney graduated in 1926 from Georgetown University School of Medicine. He was a consulting surgeon at Hillcrest General Hospital. Dr. Maloney was a member of the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

William W. Pierce, M.D., of Lockport, died on August 14 at the age of 71. Dr. Pierce graduated in 1932 from the University of Buffalo School of Medicine. He was a consulting ophthalmologist and otolaryngologist at Lockport Memorial Hospital. Dr. Pierce was a Diplomate of the American Board of Otolaryngology, a Fellow of the American College of Surgeons, a Fellow of the American College of Chest Physicians, and a member of the American Academy of Ophthalmology and Otolaryngology, the American Association for Cancer Research, the Aerospace Medical Association, the Academy of Medicine, the Niagara County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joseph Bernard Pincus, M.D., of Brooklyn, died on August 25 in his 86th year. Dr. Pincus graduated in 1921 from Columbia University College of Physicians and Surgeons. He was a consulting pediatrician at Kings County Hospital Center and Greenpoint Hospital, an attending pediatrician at St. John's Episcopal Hospital, and director emeritus of pediatrics at Jewish Hospital and Medical Center of Brooklyn. Dr. Pincus was a Diplomate of the American Board of Pediatrics and a member of the American Academy of Pediatrics, the Society for Pediatric Research, the New York Academy of Medicine, the New York Pediatric Society, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Albert Schur, M.D., of West Palm Beach, Florida, formerly of Far Rockaway, died on August 26 at the age of 85. Dr. Schur graduated in 1918 from Long Island College Hospital. He was a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

John Arthur Taylor, M.D., of Sedgwick, Maine, formerly of New York City, died on August 23 at the age of 84. Dr. Taylor graduated in 1922 from Cornell University Medical College. He was a Diplomate of the American Board of Urology, a Fellow of the American College of Surgeons, and a member of the American Urological Association, the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Robert Arthur Wilson, M.D., of Cold Spring, died on August 21 at the age of 86. Dr. Wilson graduated in 1919 from Long Island College Hospital. He was a consulting obstetrician and gynecologist at St. Mary's and Putnam Community Hospitals and a consulting emeritus obstetrician and gynecologist at The Methodist Hospital of Brooklyn. Dr. Wilson was a Diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Obstetricians and Gynecologists, a Fellow of the American College of Surgeons, a Fellow of the International College of Surgeons, and a member of the American Fertility Society, the Pan American Medical Association, the American Geriatrics Society, the New York Academy of Medicine, the Medical Society of the County of Kings, the Medical Society of the State of New York, and the American Medical Association.

Conference for physicians and other related health professionals on diabetes control

"New Technology in Diabetes Control," a one-day conference for health professionals, is being offered by the United Hospital Fund on Monday, December 7, 1981, at Yeshiva University in New York City. The program includes review and evaluation of recently developed technologies used to normalize blood sugars in type I insulin dependent diabetes. Featured will be workshop sessions which emphasize skills development in the use of the insulin infusion pump, chemstrips and dextrometers in home monitoring programs and dietary management. The conference is sponsored by the United Hospital Fund in conjunction with Albert Einstein College of Medicine/Montefiore Hospital and Medical Center/Diabetes Research and Training Center, and the American Diabetes Association, New York Affiliate, Inc.

For further information, contact Dena Seiden, United Hospital Fund, (212) 754-1080 ext. 259.

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never be greater or more urgent because the government can no longer afford to carry out all responsibilities."

Senator John Heinz (R., Pa.) said that without the help of AMPAC and similar groups the Republicans would not have been able to capture the Senate where GOP control was essential for President Reagan's legislative victories. "We will bring the budget in line; that you can depend on," the Senator said.

AMPAC Board Chairman John Smith, M.D., said the 1980s will bring sweeping changes. "We must play a major role. Our voices will be heard and our presence felt," said the San Antonio physician. Dr. Smith said AMPAC "must be ready to influence positively the decisions made. Medicine and politics do go together."

James Sammons, M.D., Executive Vice President of the American Medical Association, hailed the 20th Anniversary of AMPAC, one of the first political action groups founded. Dr. Sammons said a survey for the AMA showed that 65 percent of all physicians agree that it is the professional responsibility of physicians to support political respresentative actions undertaken by the profession. Most physicians also agree that "AMPAC" has been established to represent the political interests of physicians regarding the support of political candidates."

However, these high percentages of support are not reflected in AMPAC membership, Dr. Sammons noted, with only 12 percent of all physicians and 22 percent of AMA members contributors to AMPAC. He urged the AMPAC audience to make increased membership a top priority.

Make sure that every physician is asked to join, said Dr. Sammons. "We have too often heard doctors say they have not been asked."

The AMPAC members were briefed by top lawmakers and political experts on the political scene in Washington and on the outlook for the future. Some 200 senators and representatives attended a Congressional reception hosted by AMPAC.

Edward Rollins, Deputy White House Assistant for Political Affairs, said part of the success of the Reagan Administration "has been due to the efforts of groups such as AMPAC." He expressed optimism that the Administration will be able to build on the 1980 coalition of support and pick up seats in the House and Senate in the 1982 elections despite the tradition that the party in power loses during off-year elections.

Representative Hal Daub (R., Ne.) said PACs are a healthy addition to the right of groups to exercise free speech. Political action committees provide valuable services for elected officials and their independent expenditures "serve the constituencies very well."

Tony Coelho (D., Ca.), Chairman of the House Democratic Congressional Committee, decribed how he has retooled the Committee following the last elections in order to make it more effective, including the appointment of an official to deal with PACs. He predicted the Democrats will gain 10 House seats a year from November and strengthen their control of the House.

Representative Newton Gingrich (R., Ga.) said AMPAC and similar groups are "probably more responsible for Congressional legislative victories of the Administration this year than President Reagan." The PAC movement is more significant and important to the future of the nation than the results of the last election, Gingrich said.

Giving to a political action committee "is the act of a free citizen who is able to say 'I was involved; I tried,' " he said.

Pulitzer Prize-winning columnist David Broder told the AMPAC audience that the last nine months has been his "most interesting and exciting time in Washington."

"The most extraordinary changes have occurred. A lot of theories have been knocked into a cocked hat including the theory that government is incapable of functioning."

"The Reagan Administration and Congressional Republicans have put their act together and through political skills have energized government, Broder said. "It has been an impressive, dazzling performance so far."

* * *

Thirteen PSROs (Professional Standards Review Organizations) slated to be closed have been given a reprieve by HHS's HCFA (Health Care Financing Administration).

The 13 were part of a group of 46 slated to be terminated as part of the Administration's campaign to phase out the PSRO program.

The PSROs targeted for closure have been given appeal rights and the tentative termination decisions in 13 states were reversed.

The PSROs given new life are:

Ohio Area 6—Region VI Peer Review Corporation, Akron, O.
Oklahoma Statewide PSRO—Oklahoma Foundation for Peer Review Inc., Oklahoma City.
Louisiana Area 3—Louisiana Medical Standards Foundation, Inc., of Baton Rouge.
Arizona Area 1—Northern Arizona Medical Evaluation System, Phoenix.
Pennsylvania Area 1—Northwestern Pennsylvania PSRO, Erie.
Vermont Statewide PSRO—Vermont Professional Standards Review Organization, Inc., S. Burlington.
New Jersey Area 5—Judson County PSRO, Jersey City.
Hawaii—Pacific PSRO, Inc., Honolulu.
Pennsylvania Area 13—Physicians Peer Review Association, Inc., Poland.
Georgia Statewide PSRO—The Georgia Medical Care Foundation, Atlanta.
Michigan Area 2—Michigan Area II PSRO, Traverse City.
Florida Area 8—Brevard-Volusia PSRO

* * *

Two congressmen want the federal government to recognize the therapeutic benefits of marijuana for cancer and glaucoma patients.

Representatives Stewart McKinney (R., Ct.) and Newt Gingrich (R., Ga.) have introduced a bill that would amend the Controlled Substances Act to recognize the medical use of marijuana, without affecting penalties for social use.

Federal law defines marijuana as a drug with no acceptable medical use, and it is available by the federal government only for research. This makes it difficult for patients in 32 states where its medical use is allowed to obtain the drug legally.

Marijuana is said to treat the adverse side effects of cancer chemotherapy and to reduce intraocular pressure in glaucoma patients.

* * *

The nation's 100,000 former POWs (prisoners of war)

continued on page 1829

Medical News

Eye-Bank launches donor drive

The Eye-Bank for Sight Restoration, Inc., has just produced a new information flyer with a re-designed eye donor pledge card attached. It carries the headline: "Be a Hero in Someone's Eyes" and is the first step in a major new public education effort to increase public awareness of the need for eye donations.

According to Mary Jane O'Neill, executive director of The Eye-Bank, the supply of corneal tissue for transplant has never been able to match the demand.

"Each month there are from 150 to 180 people on the waiting list in the New York area," she said, "and we are able to help only half of them. The result is a wait of two to three months.

"When you translate these numbers into people—a child whose education is slowed, an older person unable to work because of failing vision—you can understand our desire to let people know what a tremendous gift they can make by leaving the beautiful legacy of sight."

The new flyer includes information on The Eye-Bank's program and contains a wallet-sized card that can be filled out by the prospective eye donor and two witnesses. It can also serve as a universal donor card for those who wish to leave other organs as well as the eyes.

Copies of the brochure and card can be obtained from The Eye-Bank for Sight Restoration, Inc., 210 East 64th Street, New York, NY 10021, or by calling 212-980-6700.

Since its foundation in 1944, The Eye-Bank for Sight Restoration, Inc., the first such organization in the world, has been instrumental in restoring sight to more than 20,000 men, women, and children.

Health Department unveils new directory of services

A new, completely revised and updated Directory of Services listing and describing all the health, environmental, and medical services performed by the New York City Health Department, is available free to the public, Health Commissioner Reinaldo A. Ferrer, M.D., announced in September.

The 31 page information source contains jurisdiction and performance explanations of all the Department's bureaus and a complete listing of every municipal hospital, their services, and all the neighborhood family care centers operated by the City's Health and Hospitals Corporation.

"For a free copy of the Directory, or literature on any of the areas subject to Health Department jurisdiction, send a stamped, self-addressed envelope to New York City Health Department, Public Health Education, 125 Worth Street, New York N.Y. 10013."

New source of prescribed CME credit for primary care physicians

As of July, 1981, primary care physicians can annually earn 30 Prescribed CME credits approved by the AAFP (American Academy of Family Physicians) through a self-study program provided by *ER Reports*. The accreditation was announced at the May meeting of the Continuing Education Committee of the AAFP. *ER Reports* is also accredited for 30 Category 1 credits by the American Medical Association and the ACEP (American College of Emergency Physicians).

ER Reports' instructional program comes to physicians in a newsletter format covering controversies, problems, and new developments in acute medicine. The journal provides physicians a series of 26 biweekly updates a year, each issue reviewing a single topic. CME credit is obtained by passing two semiannual post-tests on previously reported subjects.

Approval by the AAFP makes *ER Reports* the only journal now accredited for Category 1 and Prescribed credit for AMA, ACEP, and AAFP members. According to *ER Reports* editor, Craig Alan Sinkinson, M.D., "It has been our goal from the beginning to provide a stimulating source of accredited continuing medical education for all primary care physicians. Approval by the AAFP is important, since CME requirements have become a fact of life for most of us."

ER Reports is published by the American Institute of Primary Care Medicine in conjunction with the Department of Family and Community Medicine at the University of Arizona in Tucson. Dr. Anthony Vuturo, Professor of Family and Community Medicine and department head, commented further on the significance of the recent accreditation. "Given today's medical information explosion, busy practitioners need streamlined sources of continuing education. We think *ER Reports* may serve as a practical CME solution for many physicians."

Presently, members of the American Academy of Family Physicians are required to earn 150 CME credits over a three-year period. Of these, at least 75 credits must be signified as Prescribed (or supervised) credits, and the remaining may be Elective (or unsupervised). Similarly, the American College of Emergency Physicians and the Physicians Recognition Award of the AMA require 150 CME credits within a three-year period, at least 60 of which must be in Category 1.

Further information on *ER Reports'* educational program may be obtained by writing *ER Reports*, Education Department, PO Box 494, Ojai, California 93023, or by calling (805) 646-2673.

Here and there

Appointed: Irwin R. Merkatz, M.D., as chairman of the unified Department of Gynecology and Obstetrics, Albert Einstein College of Medicine of Yeshiva University . . . George Pardos, M.D., assistant professor of ophthalmology, Mount Sinai Medical Center, has been appointed medical director of The Eye-Bank for Sight Restoration, Inc. . . . The following appointments have been announced at Downstate Medical Center: Jerome W. Loh, M.D., ap-

continued on page 1828

Material for inclusion in the medical news section must be received eight weeks prior to publication date.

The Medical Society Of The State Of New York

1981 ANNUAL CME ASSEMBLY
June 26, 27, 28-1981

The following is a list of tapes being offered by the Medical Society Of The State of New York. All recordings were ma live at the conference. Please circle the sessions you desire and mail this sheet to the American Audio Associati

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AUDIO CASSETTE ORDER FORM

Program Number
(circle codes desired)

OBSTETRICS & GYNECOLOGY

1 Preventive Antibiotics In Gynecology & Obstetrics
2 Menopause — Endocrinology & Therapy
3. Recent Trends In Cesarean Sections
4 Premature Rupture Of The Membranes: Premature Labor Syndrome
5 The Place Of Non-Stress Test In Post Datism
6 Overview Of Colposcopy & Treatment Of Intra-Epithelial Neoplasia Of The Cervix
7 Dysfunctional Uterine Bleeding: Endometrial Hyperplasia & Endometrial Carcinoma

CARDIOVASCULAR DISEASE

8 Is The Decline In Cardiovascular Mortality Real?
Reduction In Cardiovascular Mortality By Modification Of Primary Risk Factors
9 The Effects Of Long Term Exercise Training On PatientOutcome
10. Impact Of Improved Medical Management On
Cardiovascular Disease Mortality.
Panel Discussion & Questions

GASTROENTEROLOGY, & COLON, & RECTAL SURGERY RADIOLOGY

11 Intestinal Veneral Disease In 1980's
Colorectal View Of Venereal Disease
Panel Discussion
12. A.F.R. Andresen Honorary Memorial Lectureship Of The Medical Society Of The State Of New York
"Crohn's Oisease Of The Duodenum"

14 Guidelines For The Use Of Flexible Colonscope
Mutual Aids: Radiologist & Endoscopist
15. Surgical Indications For Colonscopy - Do's And Don'ts
Panel Discussion

PREVENTIVE MEDICINE & PUBLIC HEALTH

16 Exercise: Change Of Lifestyle & Heart Disease
The Effectiveness Of Patient Education In Influencing Outcomes In Oiabetes Mellitus
17 Lifestyle Management Strategies At New York Telephone Company
Government Strategies For Promoting Health Education & Illness Prevention
18 Reduction Of Heart Disease Risk Behaviors In Children: The Know Your Body Project
Panel Discussion

CANCER UPDATE 1981

19 Prostatic Carcinoma: Current Approach To Therapy
Ectopic Hormone Syndromes
Discussion
20 C.T. Scanning & Sonography In Tumor Diagnosis
Tumors Of The Gastrointestinal Tract
Discussion
21 Hospice: Maintaining The Dignity Of Life
New Developments In Cancer Chemotherapy
Identification Of Patients With Increased Susceptibility To Cancer
Discussion

Program Number
(circle codes desired)

OTOLARYNGOLOGY & MAXILLOFACIAL SURGERY

22. Role Of Nutrition In The Patient With Head And Neck Cancer
Myocutaneous Flaps
23 Thyroid Update
24. Management Of The Patient With Acoustic Neuroma
Recent Advances InEvaluation & Treatment Of Vocal Cord Paralysis

MEDICAL-LEGAL & WORKERS COMPENSATION MATTERS OCCUPATIONAL MEDICINE

25. The Private Practice Of Occupational Medicine Viewpoint
26. The Rehabilitation Viewpoint
27. The Social Security Viewpoint
The Orthopedic Viewpoint
Panel Discussion

CHEST DISEASES

28. Computerized Axial Tomography (C.A.T.) Scan vs. Biopsies
Invasive Procedures: Bronchoscopy, Pleural & Pulmonary Biopsy
29 Useful Blood Tests In Oiagnosis & Treatment
30. The 31st Annual Howard C. Lilienthal Memorial Lecture

DERMATOLOGY & SYPHILOLOGY

32. Sexually Transmitted Diseases In The 1980's: An Overview
Syphilis & Other Sexually Transmitted Diseases In The Gay Scene
Discussion
33. Other Sexually Transmitted Diseases: Genital Herpes, Warts, Molluscum, S
Pediculosis
Current Therapies For Sexually Transmitted Diseases
Oiscussion

ALCOHOL AND THE UNBORN

34. Fetal Alcohol Syndrome & Alcohol Related Birth Defects -Harold Nitowski,
Orinking & Pregnancy - Review Of Current Research
35. Women & Alcohol
Fetal Alcohol Syndrome - Amol Lele, M.D.
Panel Discussion

UPDATE YOUR CARDIAC TESTING

36. The Evolution Of Stress Testing
Office Use Of Exercise Testing & Its Usefulness In Predicting Survival From
dial Infarction
37. Radionuclide-Based Techniques In Evaluating Patients With Coroary Artery
38. Radionuclide-Based Techniques In Evaluating Patients With Valvular Diseas
diomyopathy
Including Thalium Perfusion
Panel Oiscussion
39. Echocardiography
Cardiac Catheterization
40. The Clinical Usefulness Of Holter Monitoring
Panel Discussion

am Number
e codes desired)

OPHTHALMOLOGY

itrectomy In Ocular Trauma
itrectomy In Diabetes
nterior Segment Vitrectomy With Special Reference To Intraocular Lenses
itrectomy As An Adjunct To Retinal Surgery
blique Muscle Surgery, Indications & Techniques
urgical Treatment Of Eye Muscle Palsies
reatment Of Double Hypertropia
eoperations - Technical Problems At Surgery

NEUROSURGERY

ertinent Microsurgical Anatomy
osterior Fossa Aneuryms
osterior Fossa Arteriovenous Malformation
ypass Surgery In The Posterior Fossa

ATHOLOGY, ORTHOPEDIC SURGERY, RADIOLOGY

he Immunology Of Joint Diseases
ynovial Fluid-A Diagnostic Medium
uestions & Answers
oint Diseases - Howard D. Dorfman MD. & Alex Norman, MD
uestions & Answers
n Overview Of Joint Replacement Therapy 1981
he Spine - An Ortgopedic & Radiologic Enigma
uestions & Answers

ANESTHESIOLOGY, SURGERY & UROLOGY

aphael W. Robertazzi Memorial Lecture:
gmt. & Prevention Of Organ Damage In Traumatized Patient Techniques In The
valuation Of Abdominal Trauma
eatment Of Complex Abdominal Injuries
he Etiology, Diagnosis, And Treatment Of Bladder Trauma
urrent Mgmt. Of Traumatic Chest Injuries
urrent Evaluation & Treatment Of Genitourinary Trauma
onitoring Of Seriously Ill Trauma Patients
uestions & Answers

COMPUTER ASSISTED OFFICE PRACTICE: RECENT PROGRESS

portance Of Accurate Coding Of Medical Terms
omputer-Based Automated Encoding Of Medical Terms
emonstration Of Automated Encoding Of Medical Terms
omputerization Of The Office Records In The Cardiologists Practice
inical Aspects Of A Computer-Based Medical Knowledge Bank
emonstration Of Computer-Supported Office Practicce & General Discussion

Certain sessions may require speaker approval before releasing for sale

Program Number
(circle codes desired)

THE ALBION O. BERNSTEIN, M.D. AWARD LECTURE

61 Producing Monoclonal Homogeneous Antibodies By Hybridoma Technique

PEDIATRICS - SCHOOL HEALTH

62 An Overview Of The Function Of The Committee On The Handicapped
The Role Of The Physician On The Committee On The Handicapped
63 Related Services, Physical and/or Occupational Therapy
64 New York State Mandates And P.L.94-142
65 Panel Discussion

ALLERGY & IMMUNOLOGY

66 Urticaria A New Look
Food Allergy & Additives
67 Insect Allergy - A Model For Immunotherapy
68 Asthma Update - 80's
Patients As Consumers - Problems For Physicians In The 80's
Panel Discussion

NEUROLOGY

69 Life-Styles & Their Interaction With Multiple Sclerosis
Life-Styles & Their Interactions With Victims Of Head Trauma
70 Life-Styles & Their Interaction With The Epileptic
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pointed clinical professor of pathology; George Marcoullis, M.D., has been appointed associate professor of medicine; and Cyrus Wolfman, M.D., has been appointed clinical professor of psychiatry.

Lecturer: William G. Niederland, M.D., New York City, lectured on "Roots and Complexities of the Creative Process" before the Swiss Psychoanalytic Society, Zurich, Switzerland, in July; from July 7 to 10 he lectured and conducted seminars at the Universities of Freiburg and Konstanz, West Germany, on "Clinical Aftereffects of the Holocaust."

Authored: William G. Niederland, M.D., New York City, had "Folgen der Verfolgung" (After-effects of the Persecution) published by Suhrkamp Verlag, Frankfurt/Main; and was the author of "Short People" an article which appeared in *Psychiatric News*, July 17, 1981.

Promoted: Lawrence Gould, M.D., and Martin Metz, L.R.C.P. and S., have been promoted to professor of clinical medicine . . . Arthur L. Rose, M.B., Ch.B., has been promoted to professor of neurology . . . Stephen Seligman, M.D., has been promoted to professor of medicine . . . Kenneth I. Glassberg, M.D., has been promoted to associate professor of urology . . . Bernard Bihari, M.D., has been promoted to clinical associate professor of psychiatry . . . Joseph R. Fontanetta, M.D., has been promoted to clinical associate professor of medicine; Hartvig Dahl, M.D., has been promoted to clinical associate professor of psychiatry . . . Marian Waxman, M.D., has been promoted to clinical associate professor of pathology . . . and Allan J. Waltzman, M.D., has been promoted to clinical associate professor of psychiatry, Downstate Medical Center.

Retired: Bernard J. Ryan, M.D., Bay Shore, retired as director of surgery, Southside Hospital and Paul Braunstein, M.D., Bay Shore, has been appointed to succeed him.

Speaker: Robert Turell, M.D., New York City, presented 3 lectures in the Postgraduate Seminar given by the University of Miami School of Medicine in January and, also, in January addressed the Broward Surgical Society, Plantation, Florida, on "Controversial Anorectocolonic Problems."

Visiting professor: In October, 1980, Robert Turell, M.D., New York City, was visiting professor of Human Oncology at the University of Wisconsin on the 22nd.

Medical Meetings

First southern bioengineering conference

The first Southern Bioengineering Conference will be held at the Louisiana State University Medical Center, June, 1982

Authors are invited to submit papers on any aspect of bioengineering including the following areas: Artificial Organs/Prosthetic Devices; Biochemical Engineering; Biocontrol Systems; Bioelectricity: Bioinstrumentation; Biomaterials; Biomechanics; Biomedical Education; Biophysical Measurements; Biosignal Processing; Cardiology/Hemodynamics; Clinical Engineering; Computers in Medicine; Imaging; Microcirculation; Modeling and Simulation; Occupational Injury and Safety; Rehabilitation Engineering; Thermal Regulation in Biological Systems; and Ultrasonics in Medicine.

Instructions for Authors and deadline dates are: Receipt of Abstract (500 words) December 5, 1981; notification of acceptance January 15, 1982; and receipt of completed photo-ready paper (4 pages) February 20, 1982.

Papers will be reviewed. Accepted papers will be included in a proceedings to be published by Pergamon Press which will be available at the time of the meeting.

Forward all abstracts and requests for information to: Dr. S. Saha, Program Chairman, First Southern Biomedical Engineering Conference, Department of Orthopaedic Surgery, Louisiana State University Medical Center, P.O. Box 33932, Shreveport, Louisiana 71130 USA; telephone (318) 674-6187.

Material for inclusion in the medical meetings section must be received eight weeks prior to publication date.

The Degenshein Memorial Award

The Degenshein Memorial Award, sponsored by the New York Metropolitan Breast Cancer Group, Inc., will be given at their next symposium on January 30, 1982, for the best paper on breast tumors and diseases submitted by physicians doing their hospital residency in the metropolitan area. To be considered for this award, which includes a cash prize of $300, the paper must be submitted prior to January 1, 1982, to Dr. Louis Venet at the Beth Israel Medical Center, 10 Nathan D. Perlman Place, New York, New York 10003.

Dr. George Degenshein, in whose memory the award is given, was a noted surgeon and a volunteer for the American Cancer Society for many years. Louis Venet, M.D., Associate Director, the Department of Surgery, Beth Israel Medical Center, is a well-known specialist in breast diseases and is Chairman of the American Cancer Society's New York City Division Professional Education and Grants Committee, as well as a member of its Board of Directors and Executive Committee.

For further information, please call Dr. Louis Venet, President of the New York Metropolitan Breast Cancer Group, who can be reached at (212) 420-2783.

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Books Reviewed

Kennedy and Lincoln: Medical and Ballistic Comparisons of Their Assassinations. By John K. Lattimer, M.D., Sc.D., F.A.C.S. New York, Harcourt, Brace Jovanovich, 1980. Illustrated, 378 pages. Hardcover, $19.95.

Was Lee Harvey Oswald a loner or part of a conspiracy? Did he plan the assassination of President Kennedy with a group of conspirators as John Wilkes Booth had planned Lincoln's? How much can we depend on the final decisions of the Warren Commission? Why were not the commissions which investigated these assassinations provided with all available facts and evidence?

These and many other questions are asked by Dr. Lattimer in his absorbing quest for the answers to the doubts which continue to persist about the murders of two cases are considered at length, and make the reader wonder about history's way of repeating itself.

Dr. Lattimer is not happy with unanswered questions. He explains in this book how he devised many homemade experiments, and with the help of his two young sons carried them to conclusions which have satisfied him of the accuracies of the Warren Commission's conclusions. The reader will find it difficult to disagree.

Although the reader may be a little annoyed by Dr. Lattimer's habit of repeating himself in the text he cannot but be absorbed by the book with its detailed description and illustrations of the assassinations, their amazing similarities and Dr. Lattimer's at times ingenuous answers to many of the questions raised by "assassination buffs" as he calls them.

This books should be read by every one who has any interest in American history, and it will stimulate such an interest in anyone who lacks it. **G. J. L.**

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will have an easier time receiving health care benefits under a law signed by President Reagan.

The law waives the two-year period following service during which psychological disorders must manifest themselves in order to be classified as service-connected. It also provides that former POWs who were imprisoned for as few as 30 days may claim certain disabilities as service-connected without furnishing medical proof. Previously, the period was six months.

Former POWs sometimes have trouble establishing claims for service-connected disabilities because of inadequate repatriation medical examinations, the Veterans Administration says. A joint VA-Department of Defense study in 1980 found that POWs have higher incidences of physiological and psychological disabilities than those not taken prisoner, because of starvation diets, lack of medical care, and inhumane treatment during imprisonment, the VA said.

The Prisoner of War Health Care Benefits Act of 1981 also establishes an advisory committee on former POWs which will report biennially to the VA administrator and to Congress on POW problems in compensation, health care, and rehabilitation.

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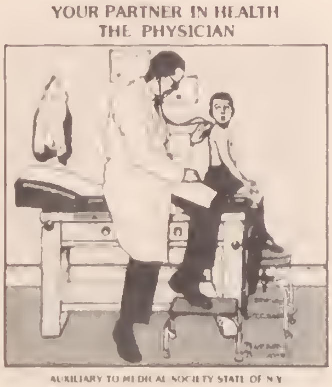
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Surgical courses in intraocular lens implantation

The Ophthalmological Foundation of America, Inc., continues to offer ongoing intensive surgical courses in lens implantation under the direction of Drs. Miles A. Galin and Stephen A. Obstbaum. The enrollment is limited to two ophthalmologists.

These are unique surgical courses in that they are on a one-to-one basis between the surgical "student" and the surgeon. The two enrolled ophthalmologists scrub all day learning the subtleties of lens implantation.

Each course commences on a Thursday evening, at which time the surgical cases are reviewed, the choice of lens determined, and implant power calculated. An intensive review of implants with emphasis on their surgical merits and drawbacks are discussed. Friday is spent in the operating room, followed by examination of postoperative patients on Saturday.

Each course is approved for 20 credit hours under Category I of the AMA Continuing Medical Education.

For enrollment, please contact Mrs. Ruth Green, Administrator, Ophthalmological Foundation of America, Inc., 113 East 39th Street, New York, New York 10016.

A teaching day

The subdepartment of Cardiology at St. Peter's Hospital will sponsor a teaching day, "Cardiac Update 1981," on Thursday, December 3rd from 1 to 4 p.m. in Cusack Auditorium. Four hours of CME, Category I credit and four prescribed A.A.F.P. hours have been accredited.

For further information, please contact Dr. Raymond Harris, Chief of the Subdepartment of Cardiology, St. Peter's Hospital, 315 S. Manning Boulevard, Albany, New York 12208.

Advanced procedures in clinical electrodiagnosis of neuromuscular diseases

New York University Post-Graduate Medical School and the Institute of Rehabilitation Medicine are sponsoring a course in "Advanced Procedures in Clinical Electrodiagnosis of Neuromuscular Disease," Wednesday through Friday, December 9 to 11. Seventeen (17) AMA category I credit hours will be granted.

For further information call or write: NYU Post-Graduate Medical School, 550 First Avenue, New York, N.Y. 10016; telephone: (212) 340-5295 (24-hour telephone service).

Computed tomography

New York University Medical Center is presenting a course on "Computed Tomography," December 17 to 20. Twenty-three and one-half (23½) AMA category I hours will be available.

For information, call or write: NYU Post-Graduate Medical School, 550 First Avenue, New York, N.Y. 10016; telephone: (212) 340-5295 (24-hour telephone service).

Serono Symposia

A week-long post-graduate symposium is planned on the island of Barbados from February 21 to 26, 1982, for the third annual update on Reproductive Endocrinology and Infertility.

This year's symposium is co-sponsored by Beth Israel Hospital, an affiliate of Harvard University School of Medicine, and Serono Symposia. The program has been approved for 33 cognates, Formal Learning, by the American College of Obstetricians and Gynecologists, and for Category 1 of the Physician's Recognition Award by the AMA.

Major program topics as well as practical workshops include polycystic ovaries and hirsutism, ovulation induction, current management of hyperprolactinemia, endometriosis, and tubal surgery, and insemination factors.

Registration deadline is January 24, 1982. However, the meeting is expected to fill up quickly, so those interested in attending are advised to register as soon as possible.

For more information, contact Ms. Leslie Nies, Serono Symposia Manager, 11 Brooks Drive, P.O. Box 985, Braintree, MA 02184. Telephone toll-free 800/225-5185. In Massachusetts, 800/848-8404.

Pediatric dermatology seminar IX

The 9th annual Pediatric Dermatology Seminar will convene at the new Carillon Beach Hotel (1-800-327-6334 toll free), Miami Beach, Florida, February 25–28th, 1982.

A two-week post-seminar tour to East Africa is planned. Nairobi, Kenya, Lake Victoria, renowned game reserves and safaris, are on the itinerary. CAT. I—CME CREDIT. For information contact: Guinter Kahn, M.D. (305-652-8600), 16800 N.W. 2nd Ave., #401, Miami, Florida 33169, or call toll free (1-800-327-8779) except Florida.

March meeting

"Perspectives on Genes and the Molecular Biology of Cancer" is the topic of the 35th annual Symposium on Fundamental Cancer Research to be held at the Shamrock Hilton Hotel, March 2–5, 1982. The symposium will focus on the molecular biology of cancer and explore in depth the metabolism involved in cellular cancer growth. Topics include gene organization and evolution, gene transfer, regulation of gene expression, and novel applications of recombinant DNA technology to human cancer.

For additional information: Stephen C. Stuyck, Director, Public information and Education, M. D. Anderson Hospital and Tumor Institute, 6723 Bertner Ave., Houston, Texas 77030, (713) 792-3030.

NCA issues "call for abstracts" for the 13th annual medical-scientific conference

A "Call for Abstracts" has been issued for the 13th Annual Medical-Scientific Conference of the National Alcoholism Forum, which will be held at the Shoreham Hotel in Washington, D.C., April 2 through 5, 1982. The Conference is jointly conducted by the National Council on Alcoholism (NCA), the AMSA (American Medical Society on Alcoholism), and the RSA (Research Society on Alcoholism).

Abstracts must be *submitted by* or *sponsored by members of AMSA or RSA;* they will be reviewed by the joint program committee and will be selected for presentation

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WORKSHOP ENTITLED, "MARRIAGE, DIVORCE, and Sexual Counceling in Medical Practice," December 11–13, 1981, Rye Town Hilton, Port Chester, N.Y. This course has been reviewed and is acceptable for 13 elective credits by the AAFP. Contact: Dr. Thomas M. Pick, 474 Main St., Greenfield, MA 01301, (413) 773-7983.

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KINGSTON, NEW YORK Several suites in a prestigious complex readily accessib to both hospitals. Suitable for Oncologist, Gastroenterologist, Pulmonologis or Orthopedist. Staff privileges available at both hospitals to qualified phys cians. F. Weber, 270 Millers Lane, Kingston, N.Y. 12401. (914) 331-1667.

HOUSE FOR SALE—TARRYTOWN, N.Y. Desirable Irvington School Distric Prestigious, executive area. Attractive, modern split level home. Four bec rooms, large living room and dining room, 2½ baths, modern eat-in-kitche family room with fireplace, den/maids room, large finished basement, flagstor patio. Central air, 3 zone heat, 2 car garage. Clubhouse, tennis and pool. A sumable 7½% mortgage. $198.000. (914) 631-1358, (212) 288-1735.

PARAMUS NEW JERSEY 8 rooms with 9 room modern offices. Presently acti medical dental practices included. Picturesque country setting. Almost 2 acr of privacy in residential area. Near 4 large malls, 4 hospitals, worship, school 8 miles from George Washington Bridge. (201) 261-0003.

BAY SHORE—HOME OFFICE: Charming custom 4 bedroom residence, 3 bat formal dining, family room, wet bar, fireplace, central air, 2½ car garage, pl 1600 sq. ft. 9 room office wing; fully equipped X-ray room, Lab, 3 exam roor waiting room, offices, etc. with separate central a/c and heat. Superior locati in prime Brightwaters area. One mile from Great South Bay. Asking $135,0 Exclusively with Eric G. Ramsay Assoc. (516) 665-1500.

RIVERDALE: LEASE 600, 800 or 1400 sq. ft. of professional office space in private house on Henry Hudson Parkway. Also available: office time to suble On site parking. Call evenings (212) 549-4777.

WHITESTONE, QUEENS—Own for the cost of rent! Medical building for sa with 2 rental apartments plus medical suite complete with lead lined X-ray roo 2 examination rooms plus more! Shelter your income and stabilize your ove head. $129,000. Going fast. The Tortora Agency (212) 353-4446.

MANHASSET HILLS, LONG ISLAND, magnificent ranch with medical offi on lower level, separate entrance, full bath—up to 1400 sq. ft. available—fami level—3 bedrooms, 2 baths, den, living room, dining room, kitchen and dinett c/ac, sprinklered almost ⅓ acre, Herricks schools, minutes from North Shor Long Island Jewish, Deepdale, St. Francis and Nassau hospitals. Write Box 340 North New Hyde Park, 11040. Principals only—$249,000. Call for appt. (51 627-6105.

OFFICE SPACE (FURNISHED) AVAILABLE for rent in new Medical Buildin across from St. John's Riverside Hospital. Suitable for satellite office or co sultation practice. Yonkers, New York. Call (914) 965-3415.

HOME/OFFICE—EXCLUSIVE AREA one acre Nassau County, centrally l cated—eleven rooms including large apartment second floor, 4½ baths. Bri high ranch with breezeway detached 2½ car garage, bluestone patio, 3 fireplace large psychiatric practice, all Long Island hospitals accessible. Asking 350 Principals only. (516) 626-2811.

M.D. FAMILY PRACTICE 34 years must retire due to illness. Levittow House/office furnished and expanded on corner of Village Green for rent. Pho (516) 692-6915.

MERRICK LI: COMBINE FINE HOME and practice. Expanded ranch 5 be rooms, 2½ baths, large family room, eat-in-kitchen and formal dining, crackli fireplace, carpeting and appliances. Four room office leased to physician family practice. Superb location very attractive setting. Kranzler Realty h key (516) 223-4440.

OFFICE SPACE AVAILABLE—Great location, 1480 Wantagh Ave., Wantag N.Y. A few blocks from Wantagh Medical Center and adjacent to other medic offices. Less than a mile south of Southern State Parkway, Exit 28. $800/mon plus utilities. Contact Stanley Gulkin, day (201) 239-6700, Gary Adler, nig (212) 689-1766.

SHARE AN OFFICE—Great location, 863 Central Ave., Woodmere, N.Y. O block from L.I.R.R. and Bus Stop. Many Professional offices in area. $30 month plus utilities. Contact Stanley Gulkin, day (201) 239-6700, Gary Adl night (212) 689-1766.

what goes on IN CONTINUING MEDICAL EDUCATION

NEW YORK STATE **DECEMBER 1981**

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420 Lakeville Road, Lake Success, New York 11042
Telephone 516-488-6100.

Compiled by the Division of Scientific Activities
George J. Lawrence, Jr., M.D., Director
Mrs. Elizabeth H. Daepp, Editor
Philip Keating, Director, Division of Finance

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NEW YORK CITY

Metropolitan Hospital Center in affiliation with New York Medical College

1901 First Avenue
December 2, 3:30 p.m., Wednesday
DEPARTMENT OF PATHOLOGY
MONTHLY SLIDE SEMINAR
UNUSUAL GASTRO-INTESTINAL ENDOSCOPIC BIOPSY
Sheldon C. Sommers, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)
For further information contact Victor Tchertkoff, M.D., Coordinator, Metropolitan Hospital Center, 1901 First Avenue, New York 10029. Tel: 212/360-6253.

Westchester Square Hospital in collaboration with Albert Einstein College of Medicine

* Conference Room
2475 St. Raymond Avenue
Bronx
December 2, 4–5:30 p.m., Wednesday
USE OF THE SWAN-GANZ CATHETER
Martin N. Cohen, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)
December 16, 4–5:30 p.m., Wednesday
ECHOCARDIOGRAPHY FOR THE FAMILY PHYSICIAN
Joel A. Strom, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)

Beth Israel Medical Center co-sponsored by The Page and William Black Post-Graduate Medical School

10 Nathan D. Perlman Place
* Podell Auditorium
December 2–9, 7:00–9:00 p.m., Wednesdays
STRUCTURAL FAMILY THERAPY: THEORY AND PRACTICE
Dorcas Cofer, Ph.D. and Jorge Colapinto
FEE: $80. CREDIT: AMA Cat. 1
December 12, 9:00 a.m.–5:00 p.m., Saturday
RECENT ADVANCES IN CLINICAL NEUROPSYCHOLOGY
Joel Redfeld, Ph.D. and Jay Davidowitz, Ph.D.
FEE: $45. CREDIT: AMA Cat. 1
December 19, 7:30 p.m.–10:00 p.m., Saturday
MINUCHIN UNABRIDGED
Dorcas Cofer, Ph.D. and Jorge Colapinto
FEE: $20. CREDIT: AMA Cat. 1

Saint Mary's Hospital of Brooklyn

170 Buffalo Avenue
Brooklyn
* Third Floor Boardroom
8:00 a.m.–9:00 a.m.
December 2
THE ISCHEMIC LOWER LIMB
Gustave Steinberg, M.D.
December 9
POLYMALGIA RHEUMATICA
Harry Spiera, M.D.
December 16
THE MANAGEMENT OF RHEUMATOID ARTHRITIS
Israeli A. Jaffee, M.D.
CREDIT: AMA Cat. 1
For further information contact The Department of Medicine at St. Mary's Hospital, 170 Buffalo Avenue, Brooklyn. Tel: 212/774-3600 ext. 2044 or 2045.

Doctors Hospital

170 East End Avenue
4:15 p.m., Thursday
December 3
INFECTIOUS DISEASES IN CLINICAL PRACTICE
MANAGEMENT OF WOUND INFECTIONS
Jere Lord, M.D.
NO FEE. CREDIT: AMA Cat. 1
CLINICAL PRACTICE WORKSHOPS
Second Thursdays, December thru June 4:15 p.m.
DISCUSSIONS OF CLINICAL PROBLEMS SELECTED FROM MEDICAL AUDITS OF STAFF PERFORMANCE AT DOCTORS HOSPITAL
CREDIT: AMA Cat. 1
GRAND ROUNDS
Third Thursdays, December thru June 4:15 p.m.
DISCUSSIONS OF INTERESTING CLINICAL CASES
Donald W. Hoskins, M.D., Horace W. Whiteley, Jr., M.D.
CREDIT: AMA Cat. 1
CLINICOPATHOLOGICAL CONFERENCES
Fourth Thursdays, December thru June 4:30 p.m.
CORRELATIONS OF CLINICAL AND AUTOPSY FINDINGS IN SELECTED CASES
Nathaniel T. Kwit, M.D., Peter Teng, M.D., Bimla Paul, M.D., Romulo Prudente, M.D.
CREDIT: AMA Cat. 1
For further information contact the secretary of CME, Doctors Hospital, 170 East End Avenue, New York 10028. Tel: 212/870-9118.

Jewish Hospital and Medical Center of Brooklyn with the American Cancer Society Brooklyn Unit and SUNY Downstate Medical Center

* B-51 Conference Room
Basement, Leviton Building
Jewish Hospital & Medical Center of Brooklyn
3:30–4:30 p.m., Wednesdays
December 2
ADVANCES IN HEMATOLOGY AND ONCOLOGY BREAST CANCER: RISK FACTORS AFFECTING THE SUBSEQUENT COURSE OF THE DISEASE
Angelos E. Papatestas, M.D.
December 9
AMERICAN SOCIETY OF HEMATOLOGY
December 16
GRANULOCYTE AND PLATELET ANTIBODIES
Charles Zaroulis, M.D.
December 23
NUTRITIONAL ASPECTS OF CANCER TREATMENT
Carlos Flombaum, M.D.
NO FEE. CREDIT: AMA Cat. 1
For further information contact Jewish Hospital and Medical Center of Brooklyn, 555 Prospect Place, Brooklyn 11238. Tel: 212/240-1211 or 1212, Div. of Hematology/Oncology

Albert Einstein College of Medicine of Yeshiva University cosponsored by the National Cancer Institute (NSABP Cancer Control Network) and The American Cancer Society, New York City Division

1300 Morris Park Avenue
Bronx
* Van Etten Hospital
Room 523
4:00–5:30 p.m.
December 4
ONCOLOGY FOR THE FAMILY PRACTITIONER
CALCIFICATION IN TUMORS DETECTED BY PLAIN FILM EXAMINATION

S. R. Baker, M.D.
CREDIT: AMA & AAFP Cat. 1
For further information contact Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx 10461. Tel: 212/430-2000.

New York University Post-Graduate Medical School

550 First Avenue
* Classroom F
Schwartz Lecture Hall
401 East 30th Street
December 5–6, 8:00 a.m.–5:00 p.m., Saturday and Sunday
BASIC REVIEW OF PATHOLOGY AND RADIOLOGY FOR UROLOGISTS
FEE: $250. CREDIT: AMA Cat. 1 (13 hrs.)
For further information contact New York University Post-Graduate Medical School, 550 First Avenue, New York 10016. Tel: 212/340-5295.

New York University Post-Graduate Medical School

550 First Avenue
December 14–16
MANAGING CLINICAL PROBLEMS IN THE ELDERLY FOR INTERNISTS AND PRIMARY CARE PHYSICIANS
FEE: $375. CREDIT: AMA Cat. 1 (19 hrs.)
For further information call or write: NYU Post-Graduate Medical School, 550 First Avenue, New York 10016. Tel: 212/340-5295.

New York University Post-Graduate Medical School

550 First Avenue
* Grand Hyatt New York Hotel
December 7–10
NEUROSURGERY—1981
HEAD INJURIES
PERIPHERAL NERVE INJURIES
PITUITARY MICROADENOMAS
SPINAL CORD TUMORS
PERIOPERATIVE MANAGEMENT
SURGICAL VIDEO WORKSHOPS
FEE: $450. CREDIT: AMA Cat. 1 (25 hrs.)
For further information contact Registration Office, NYU Post-Graduate Medical School, 550 First Avenue, New York 10016. Tel: 212/340-5295.

State University of New York Downstate Medical Center, Kings County Hospital Center in cooperation with District I, NYSSA

450 Clarkson Avenue
Brooklyn
December 7, 4:00–5:00 p.m.
VISITING PROFESSOR
Department of Anesthesiology
MANAGEMENT OF THE PATIENT FOR PITUITARY SURGERY
December 8, 5:00–6:00 p.m.
VENTILATION-PERFUSION ABNORMALITIES
CREDIT: AMA Cat. 1
For further information contact SUNY Downstate Medical Center, 450 Clarkson Avenue, Brooklyn 11203. Tel: 212/270-1000.

The New York Academy of Medicine

2 East 103 Street
December 7, 8:00 p.m., Monday
SECTION ON OPHTHALMOLOGY WITH THE NEW YORK SOCIETY FOR CLINICAL OPHTHALMOLOGY
The Arnold Schoenberg Memorial Lecture
PERIPHERAL UVETIS HISTORICAL ASPECTS, CLINICAL FEATURES AND PATHOGENESIS, CURRENT CONCEPTS OF COSMETIC BLEPHAROPLASTY
Robert J. Brockhurst, M.D., Orkan G. Stasior, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)
Reception 6:00 p.m., Subscription Dinner 7:00 p.m.
December 9, 2:00 p.m., Wednesday
SECTION ON GERIATRIC MEDICINE
DEMENTIA IN THE ELDERLY
Eugene Y. Berger, M.D.
AN OVERVIEW OF DEMENTIA
Robert Katzman, M.D.
RECENT RESEARCH IN DEMENTIA
John P. Blass, M.D.
DIAGNOSIS AND MANAGEMENT OF DEMENTIA
James A. Haycox, M.D.
EPIDEMIOLOGY: WHAT HAPPENS TO THE DEMENTED PATIENT IN THE LONG TERM CARE INSTITUTIONS IN ENGLAND
Barry J. Gurland, M.D.
CREDIT: AMA Cat. 1 (3 hrs.)

QUEENS COUNTY

Astoria General Hospital in collaboration with The Albert Einstein College of Medicine

25-10 30th Avenue
Long Island City
* Conference Room
December 5, 9:00 a.m.–11:00 a.m.
THE TOTAL BODY CAT SCAN
Mark Goldman, M.D.
For further information contact Astoria General Hospital, 25-10 30th Avenue, Long Island City 11102. Tel: 212/932-1000 ext. 200.

Boulevard Educational Foundation and SUNY and Downstate Medical School

* Boulevard Hospital
46-04 31st Avenue
Long Island City
December 6, 9:00 a.m.–12 Noon, Sunday
CLINICAL IMMUNOLOGY
Alan Josephson, M.D.
CREDIT: AMA Cat. 1
For further information contact Ms. Ann Bopp, 212/721-7000, ext. 252.

Peninsula Hospital Center in cooperation with Downstate Medical Center

51-15 Beach Channel Drive
Far Rockaway
(20 Sessions Starting October 18)
Sunday Mornings
UPDATE FOR FAMILY PHYSICIANS
For further information contact Peninsula Hospital Center, 51-15 Beach Channel Drive, (West Pavilion), Far Rockaway 11691. Tel: 212/945-7100.

NASSAU COUNTY

Long Island Jewish-Hillside Medical Center and the Health Sciences Center State University of New York at Stony Brook, Sponsored by

Department of Surgery New Hyde Park

* Teaching Center Auditorium, Room 201A
DEPARTMENT OF SURGERY GRAND ROUNDS
Thursdays, September 3, 1981 thru June 24, 1982
December 3
SURGICAL PATHOLOGY II
Leonard Kahn, M.D.
December 10
VISITING PROFESSOR
MASQUERADORS OF INFLAMMATORY BOWEL DISEASE
William Silen, M.D.
December 17
USE OF STAPLERS IN ABDOMINAL AND THORACIC SURGERY
Peter Weil, M.D.
December 24
UPDATE ON CARDIAC SURGERY
Daniel Weisz, M.D.
December 31
EXPERIMENTAL AND CLINICAL APPROACHES IN SHORT BOWEL SYNDROME
Martin Tindel, M.D.
For further information contact Reid Aaron at 212/470-2663.

Long Island Jewish-Hillside Medical Center & The Post Graduate Institute for Medical and Dental Education and the Health Sciences Center (SUNY) Stony Brook

* Teaching Center Auditorium
Room E201 A, B, C
Long Island Jewish-Hillside Medical Center
New Hyde Park
December 8, 8:30 a.m.–3:45 p.m., Tuesday
THE PAINFUL KNEE
Acute Arthritis
Catherine A. Marino, M.D.
OSTEONECROSIS
Paul Lotke, M.D.
ARTHORGRAPHY
Mark E. Gershwind, M.D.
SPORTS INJURIES
Jahan S. Roofeh, M.D.
THE PAINFUL KNEE' IN CHILDHOOD AND ADOLESCENCE
Hormozan Aprin, M.D.
CURRENT STATUS OF IMPLANTS: LONG TERM RESULTS AND COMPLICATIONS
Richard S. Laskin, M.D.
CREDIT: AMA Cat. 1
December 9, 8:30 a.m.–5:00 p.m., Wednesday
PEDIATRIC CARDIOLOGY REVIEW AND WORKSHOP—COURSE #1
Norman Gootman, M.D.
CREDIT: AMA Cat. 1
December 10, 8:00 a.m.–12 noon, Thursday
ELECTROSURGERY IN GENERAL DENTISTRY
Joseph D. Osipow, D.D.S.
CREDIT: AMA Cat. 1
December 11, 9:00 a.m.–12 noon, Friday
THE USE OF BONDING IN ORAL SURGERY
Drs. Leonard Gorelick, A. John Gwinnett, Stephen Sachs
CREDIT: AMA Cat. 1
For further information contact Ann J. Boehme, CE Coordinator, Long Island Jewish-Hillside Medical Center, New Hyde Park 11042. Tel: 212/470-2114.

Long Beach Memorial Hospital in affiliation with The Page and William Black Postgraduate School of Medicine of The Mount Sinai School of Medicine (CUNY)

455 East Bay Drive
Long Beach
December 1, 3:00–6:00 p.m.
PULMONARY SYMPOSIUM:
PULMONARY FUNCTION TESTS FOR THE CLINICIAN
Albert Miller, M.D.
TUBERCULOSIS—1981
Herbert W. Berger, M.D.
THE ADULT WHEEZER
Alvin S. Teirstein, M.D.
NO FEE. CREDIT: AMA Cat. 1
For further information call Community Relations Department, 516/432-8000, extension 362 or 363.

Nassau County Medical Center

2201 Hempstead Tpke.
East Meadow
* Amphitheater Dynamic Care Building
December 1980–June 10, 1982
10:00 a.m., Thursdays
MEDICAL GRAND ROUNDS LECTURES IN CME
December 3
GENITAL INFECTIONS WITH CHLAMYDIA TRACHOMATIS
Michael Frank Rein, M.D.
December 10
ATYPICAL PNEUMONIAS
Burke A. Cunha, M.D.
December 17
SCLERODERMA
Raul Fleischmajer, M.D.
CREDIT: AMA Cat. 1
For further information contact Ethel Ford, CME Dept., Nassau County Medical Center, 2201 Hempstead Tpk., East Meadow 11554. Tel: 516/542-3713.

SUFFOLK COUNTY

St. Charles Hospital co-sponsored by St. Francis Hospital

200 Belle Terre Road
Port Jefferson
* St. Charles Lecture Room
December 1, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
ESTROGEN REPLACEMENT IN ENDOMETRIOSIS AND ENDOMETRIOTIC HYPOPLASIA
Zev Rosenwaks, M.D.
* St. Charles Classroom A
December 4, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH HILLSIDE MEDICAL CENTER
* St. Charles Lecture Room
December 7, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
December 8, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
ANTIBIOTIC THERAPY IN MIXED SURGICAL INFECTIONS
Francis P. Tally, M.D.
* St. Charles Classroom "A"
December 11, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH HILLSIDE MEDICAL CENTER
* St. Charles Lecture Room
December 14, 11:45 a.m.–1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
* St. Charles Lecture Room
December 15, 11:30 a.m.–1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES

ANTIBIOTICS: THEIR COST AND EFFICACY
Luis E. Tobar, P. Ph., Director
• St. Charles Classroom "A"
December 18, 8:00 a.m., Friday
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH HILLSIDE MEDICAL CENTER
• St. Charles Lecture Room
December 18, 8:00 a.m., Friday
FAMILY PRACTICE PROGRAM
OFFICE GYNECOLOGY
Louis S. Margulies, M.D.
• St. Charles Classroom "A"
December 21, 7:30 a.m., Monday
OPHTHALMOLOGY CONFERENCE
POSTERIOR VITRECTOMY WITH THE OCUTONE
Gerald Stoller, M.D.
• St. Charles Lecture Room
December 21, 11:45 a.m.-1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
December 22, 11:30 a.m.-1:00 p.m., Tuesday
WEEKLY EDUCATIONAL SERIES
RECENT ADVANCES IN THERAPEUTIC PLASMAPHERESIS
Max I. Hamburger, M.D.
December 28, 11:45 a.m.-1:15 p.m., Monday
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
CREDIT: AMA Cat. 1
For further information contact Mary Rotolo, Department of Medical Education, St. Charles Hospital, 200 Belle Terre Road, Port Jefferson 11777. Tel: 516/473-2800.

Mather Memorial Hospital co-sponsored by St. Francis Hospital
North Country Road
Port Jefferson

December 7, 7:00 p.m.-10:00 p.m., Monday
POST GRADUATE DENTAL PROGRAM
DIAGNOSIS AND AUSCULTATION OF THE CARDIOVASCULAR SYSTEM—CONTINUED
Peter F. Bruno, M.D.
December 21, 7:00 a.m., Monday
ANESTHESIOLOGY CONFERENCE
ANESTHESIA FOR PROSTATECTOMY
Edward A. Norris, M.D.
CREDIT: AMA Cat. 1
For further information contact Mary Rotolo, Department of Medical Education, Mather Memorial Hospital, North Country Road, Port Jefferson, 11777. Tel: 516/473-1320.

Kings Park Psychiatric Center

Kings Park
• Auditorium, Day Treatment Center
December 2, 10:30 a.m.-12 noon
RECENT DEVELOPMENTS IN THE TREATMENT OF EPILEPSY
Eileen P. G. Vining, M.D.
NO FEE. CREDIT: AMA Cat. 1 have been applied for
For further information contact G. V. Laury, M.D., Chief of Education and Training, Kings Park Psychiatric Center.
Tel: 516/544-2677.

ROCHESTER

The University of Rochester Medical Center

601 Elm Avenue
Rochester
• Rochester Marriott Inn
5257 W. Henrietta Road
Rochester
March 3-6, Wednesday through Saturday
A POSTGRADUATE COURSE IN ORTHOPAEDIC MEDICINE—PART I
James H. Cyriax, M.D.
For further information contact Office of Continuing Professional Education, University of Rochester Medical Center, 601 Elmwood Avenue, P.O. Box 677, Rochester 14642. Tel: 716/275-4392.

BUFFALO

Roswell Park Memorial Institute and the American Center Society, New York State Division and Erie County Unit

666 Elm Street
Buffalo
• Hilleboe Auditorium
December 10
HUMAN INTERFERON
J. J. Horoszewicz, M.D.
FEE: $25. CREDIT: AMA Cat. 1 & AAFP & AOA Cat. 2
For further information contact Gayle Bersani, Coordinator, Cancer Control Office, Roswell Park Memorial Institute, 666 Elm Street, Buffalo 14263. Tel: 716/845-4406.

FUTURE EVENT

NEW YORK CITY

Beth Israel Medical Center, The New York Metropolitan Breast Cancer Group and The American Cancer Society/New York City Division cosponsored by The Page and William Black Post-Graduate School of the Mount Sinai School of Medicine, CUNY

10 Nathan D. Perlman Place
• Stern Auditorium
Mount Sinai Medical Center
One Gustave L. Levy Place
January 30, 8:00 a.m.-4:00 p.m., Saturday
9TH ANNUAL BREAST CANCER SYMPOSIUM—CURRENT CLINICAL APPROACHES TO DIAGNOSIS AND TREATMENT OF BREAST CANCER
Louis Venet, M.D.
NO FEE. CREDIT: AMA Cat. 1 (7 hrs.)
For further information contact Beverley R. Baptiste, Post-Graduate Education Office, Beth Israel Medical Center, 10 Nathan D. Perlman Place, New York 10003. Tel: 212/420-2000.

ATTENTION, ANYONE WISHING TO SUBMIT AN ANNOUNCEMENT FOR "WHAT GOES ON IN CONTINUING MEDICAL EDUCATION" ALL CONTINUING MEDICAL EDUCATION ANNOUNCEMENTS MUST BE RECEIVED THE 15th OF THE MONTH, THREE MONTHS PRIOR TO THE DATE OF THE EVENT.

physicians' placement opportunities

Compiled by the
Division of Scientific Activities
George J. Lawrence, Jr., M.D., Director
Mrs. Elizabeth H. Daepp, Editor
Philip Keating, Director, Division of Finance

Please send information to the Editor, WHAT GOES ON,
420 Lakeville Road, Lake Success, New York 11042
Telephone 516-488-6100

ALLERGIST

MONTICELLO, N.Y., contact Gustave Gavis, M.D., P.O. Box 710, 410 Broadway, Monticello Medical Bldg., Montícello, NY 12701. Tel: 914/794-4900.

COMMISSIONER OF HEALTH

POUGHKEEPSIE, N.Y., contact Andree F. Sullivan, New Tower, Vassar Brothers Hospital, Poughkeepsie 12601. Tel: 914/452-2140.

EMERGENCY ROOM

BUFFALO, N.Y., contact Lafayette General Hospital, 113 Lafayette Avenue, Buffalo 14213. Tel: 716/885-8900.

PATCHOGUE, N.Y., contact Dorothy S. Lane, M.D., Brookhaven Memorial Hospital, 101 Hospital Rd., Patchogue 11772. Tel: 516/654-7797.

UTICA, N.Y., contact Irving Cramer, M.D., Medical Director, St. Luke's Memorial Hospital Center, P.O. Box 479, Utica 13503.

ENT

OLEAN, N.Y., contact Dr. Edward R. Mountain, 1909 West State St., Olean, 14760. Tel: 716/372-2788.

FAMILY PHYSICIAN

ATHENS, N.Y., contact Village Clerk, 2 First Street, Athens 12015. Tel: 518/945-1551.

AUBURN, N.Y., contact Charles D. Hicks; Director, Physician Procurement Committee, 157 Ross Street, Auburn 13021. Tel: 315/253-3388.

BINGHAMTON, N.Y., contact Broome County Medical Society. Tel: 607/729-9261.

HUNTINGTON, N.Y., contact Douglas R. Phillips, M.D., 74 Quail Run Drive, Deer Park 11729. Tel: (Office) 516/379-2689 or (Home) 516/242-8766.

MARGARETVILLE, N.Y., contact Joseph Kehoe, Adm., Margaretville Hospital, Margaretville 12455. Tel: 914/586-2631.

ONEIDA, N.Y., contact Frances B. Carlson, 577 Stoneleigh Rd., Oneida 13421.

OSWEGO, N.Y., contact J. Sherwood Dunham, Oswego Hospital, 110 West Sixth Street, Oswego 13126.

POUGHKEEPSIE, N.Y., contact B. Lipton, M.D., 79 Hooker Avenue, Poughkeepsie 12601. Tel: 914/454-3232.

FAMILY PRACTICE

BATH, N.Y., contact W. A. Klepack, Box 831, Bath 14810. Tel: 607-776-6438 call collect.

VICTOR, N.Y., contact Victor Medical Associates, 7120 Lane Road Extension, Victor 14564. Tel: 716/924-5120.

INTENSIVE CARE

FREEPORT, N.Y., contact Sheldon Klahr, Administrator, Lydia Hall Hospital, 320 West Merrick Road, Freeport, 11520. Tel: 516/378-8500.

INTERNIST

FREEPORT, N.Y., contact Lydia E. Hall Hospital, 320 West Merrick Road, Freeport 11520.

HANCOCK, N.Y., contact Osias M. Villaflor, M.D., 5 Fairview Avenue, Hancock 13783. Tel: 607/637-4941.

LITTLE FALLS, N.Y., contact Nicholas A. Prisco, Adm., Little Falls Hospital, 140 Burwell Street, Little Falls 13365. Tel: 315/823-1000, ext. 261 or 262.

ONEIDA, N.Y., contact Frances B. Carlson, 577 Stoneleigh Rd., Oneida 13421.

ROCHESTER, N.Y., contact A. D. Crown, M.D., 7 Sandle Drive, Fairport 14450. Tel: 716/586-0443.

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Physicians seeking placement opportunities outside New York State should contact AMA, Physicians' Placement Service, 535 N. Dearborn Street, Chicago, Ill. 60610. Tel: 312/751-6000 and also refer to the physicians' opportunities listed in the classified ad section of *JAMA*, the Journal of the AMA.

ATTENTION, ANYONE WISHING TO SUBMIT AN ANNOUNCEMENT FOR "WHAT GOES ON IN CONTINUING MEDICAL EDUCATION" ALL CONTINUING MEDICAL EDUCATION ANNOUNCEMENTS MUST BE RECEIVED THE 15th OF THE MONTH, THREE MONTHS PRIOR TO THE DATE OF THE EVENT.

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This beautiful ivory diptych was probably made in Italy in the early fifth century. It depicts Asklepios, the god of medicine, leaning on a club, around which is twined a bearded snake and Hygieia, goddess of health, leaning on a tripod and offering an egg to a snake. *(Courtesy of Merseyside County Museums, Liverpool, England).* See page 1855

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Medical Society of the State of New York
ANNUAL CME ASSEMBLY
June 25–27, 1982
Rye Town Hilton, Port Chester, New York

Requests for Scientific Exhibit Space should be addressed to Thomas S. Bumbalo, M.D., Chairman, Scientific Exhibits Subcommittee, Medical Society of the State of New York, 420 Lakeville Rd., Lake Success, P.O. Box 5404, New York 11042. Deadline: March 1, 1982.

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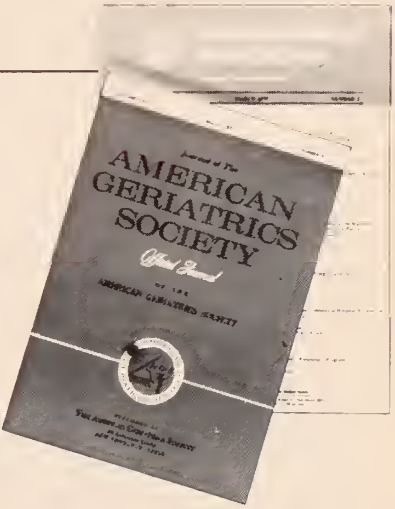

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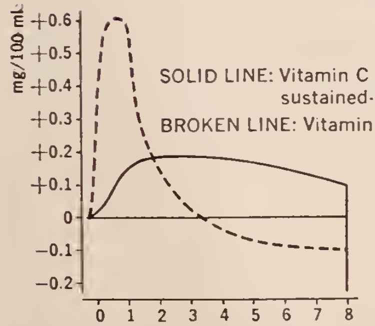

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*Comparison of ascorbic acid blood levels after administration of 1 gram of ascorbic acid in effervescent tablet form and 1 gram of CEVI-BID (2 capsules). *Adaptation

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1. Riccitelli, M.L.: Vitamin C Therapy in Geriatric Practice, J. Amer. Geriatrics Soc. 20:34, 1972.
2. Riccitelli, M.L.: Vitamin C—A Review. Conn. Med. 39:609, 1975

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Letters to the Editor

Dr. Frankenstein, I presume?

To the Editor: I refer to Dr. Prior's article* dealing with the use (or abuse?) of so much medical technology (x-rays, laboratory, diagnostic procedures, and so forth).

The article is appropriate and enlightening but I would add one important explanation for the "Frankenstein" incubus which is *not* attributable to our physicians. They are not, as inferred, inferior to our English colleagues "who are the best "hands-on" physicians in the world." Our men are no less capable of "hands-on" techniques, and could get along with as little "technology," but, unlike the English, they are *forced* to use technology because of the malpractice scam, which has driven them to practice "defensive medicine" in order to offset the accusative question, on the stand, by a weaselly lawyer: "Did you take an x-ray," or, "Did you do a blood study?," falsely implying to the jury that the physician overlooked something.

Remove the hungry interloper from the medical scene and there will be a return to good clinical medicine without a flood of technology.

LESTER J. CANDELA, M.D.
6 Highland Place
Great Neck, N.Y. 11020

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* Prior, J. T.: Dr. Frankenstein, I presume?; who's to kill, or should we kill the monster we have created?, New York State J. Med. 81: 1266 (July) 1981.

PCP effects confirmed in infants

A newly published study shows for the first time that a frequently abused drug—commonly called PCP, or "angel dust"—can transfer from a pregnant mother to her fetus.

The drug, phencyclidine, was found in the urine of two newborns whose mothers were PCP users, as reported in a study published in the October issue of *Pediatrics*, the journal of the AAP (American Academy of Pediatrics). The study was conducted by a medical team headed by Arthur A. Strauss, M.D., F.A.A.P., at Miller Children's Hospital of Long Beach, University of California, Irvine, California.

PCP originally was developed as an anesthetic for humans, but is now restricted to veterinary use because it produced psychotic effects in man. It is relatively easy to make and distribute, and thus has become a popular "street drug,"—and the cause of many visits to emergency rooms.

The effects of several abused drugs—including heroin, amphetamines, and alcohol—on newborn infants due to their mothers' use during pregnancy previously has been reported. The study in *Pediatrics*, however, marks the first time that the transfer of PCP through the placenta from the mother to the fetus was established. The transfer was confirmed through the urine tests.

In one case report included in the *Pediatrics* article, a 20-year-old mother had used PCP 15 to 20 times during pregnancy. In the other case report, the mother had used PCP on weekends during pregnancy; she last took the drug the night before she delivered. One of the newborn infants had an abnormally small head; the other was normally developed.

Both infants behaved in some of the same ways adult addicts do when withdrawing from drugs—jittery, irritable, with tremors, and so forth. The newborns also had digestive problems, with frequent vomiting and diarrhea. One infant also had respiratory and heart problems.

The medical team concludes that physicians caring for newborn infants should be alert to signs that the mother used PCP during pregnancy. Symptoms are similar to those in infants when mothers have used narcotics such as heroin or methadone. The scientists point out that it can quickly be determined whether the infant has picked up PCP from his mother by screening for the substance in the newborn's urine.

Medical Meetings

Society of Medical Jurisprudence

"Medical Malpractice—An Overview" for the 1980s is being presented in celebration of the 98th year since its inception, the Society of Medical Jurisprudence is happy to announce its annual program which will be devoted to an in-depth consideration of the problems involved with medical malpractice.

Physician members of the audience attending the sessions will receive 1½ Category I CME credit hours for each session. Nurses will be awarded comparably, if they register at each session.

The meetings are held on Monday evenings at 7:00 p.m. sharp, in the Presentation Room of the Lenox Hill Hospital. The street address is at 77th Street between Park Avenue and Lexington Avenue.

These programs began on October 19 and the last one will be presented June 14. There will be no charge for attendance at these meetings.

Medical and Law Students are invited.

Michael M. Baden, M.D., *President*
Charles P. Bailey, M.D., *Secretary*

Evenings on diabetes

A free series of 9 lectures about diabetes began in October at the Westchester County Medical Center.

The series, "Evenings on Diabetes," is aimed at educating and helping diabetic patients and their families to understand and manage the disease. The program began on October 29th; the series will run one Thursday evening a month through June, 1982. Each session will be held in the Basic Science Building on the Medical Center Campus from 8–9:30 p.m.

For a list of the dates and topics of each "Evenings on Diabetes" session, or for directions to the Valhalla campus, call Dr. Bergman at 914-347-5654.

Course on arrhythmias

February 22–24 a course on Arrhythmias will be held. This is for family physicians and internists. The program will be held at the Hyatt Palm Beaches Hotel, West Palm Beach, Florida, and is sponsored by the State University of New York at Buffalo, Buffalo General Hospital, and University of Toronto, St. Michael's Hospital. Inquiries to Box 114, Hiler Branch, Buffalo, N.Y. 14223; Telephone (716) 836-5172.

Sports medicine postgraduate course

The Northwestern Center for Sports Medicine is pleased to announce that it will once again sponsor a Sports Medicine Postgraduate Course in Maui, Hawaii, March 8–12, 1982.

The course has been planned to coincide with the Maui Marathon and will carry 25 hours of Category I CME credit.

For further information, interested individuals should contact: Bates Noble, M.D., Course Director, Northwestern University Center for Sports Medicine, 303 East Chicago Avenue, Chicago, IL 60611.

Allergy teaching day

The New York Allergy Society Teaching Day will be held on Friday, April 30, 1982, from 9:00 a.m. to 4:00 p.m., (registration at 8:30 a.m.) at the Uris Auditorium, Cornell University Medical Center, 1300 York Avenue, New York, N.Y.

The program will be "Recent Advances in Allergy and Immunology."

Advances in pulmonary medicine

"Advances in Pulmonary Medicine" will be presented May 2 to 6 at the New York Hilton Hotel, New York City.

Cosponsors are: the American College of Physicians, Queens Hospital Center Affiliation of Long Island Jewish-Hillside Medical Center, and State University of New York at Stony Brook. Category 1 credits—30.25—will be offered.

For information: Postgraduate Department, American College of Physicians, 4200 Pine Street, Philadelphia, Pennsylvania 19104.

World Congress of Gastroenterology, Digestive Endoscopy, and Coloproctology

A World Congress of gastroenterology, digestive endoscopy, and coloproctology will be held in Stockholm, June 13 to 19.

All information can be obtained from Stockholm Convention Bureau, Jacobs Torg 3, S-11 52 Stockholm, Sweden.

Material for inclusion in the medical meetings section must be received eight weeks prior to publication date.

Annotations of Books Received*

PHYSICAL EXAMINATION—HANDBOOKS

Bedside Diagnostic Examination. By Elmer L. DeGowin, M.D., M.A.C.P., and Richard L. DeGowin, M.D., F.A.C.P. Fourth edition. New York, Macmillan Publishing Co., Inc., 1981. Illustrated, 1,039 pages. Softcover, $19.95.

Updated edition, incorporating besides Symptoms and Signs and Disease Patterns the laboratory Data as a new Diagnostic Mode.

PERINATOLOGY

Perinatal Medicine Today. Edited by Bruce K. Young, M.D. New York, Alan R. Liss, Inc., 1980. Cloth, 229 pages. Price, $20. (Progress in Clinical and Biological Research, Volume 44.)

A review of the most promising current advances in the field; proceedings of a symposium held at New York University, and cosponsored by the New York Academy of Medicine, June 7–9, 1979.

LEGIONNAIRES' DISEASE

Legionnaires' Disease. By Gary L. Lattimer, M.D., and Richard A. Ormsbee, Ph.D. New York, Marcel Dekker, Inc., 1981. Illustrated, 250 pages. Hardcover, $23.50 (Infectious Diseases and Antimicrobial Agents/1).

A state of the art review of the disease from 1976 when it was first recognized as a clinical entity, to the present.

CROSS INFECTION

Noscomial Infections. Edited by Richard E. Dixon, M.D. New York, Yorke Medical Books, 1981. Illustrated, 326 pages. Hardcover, $29.50.

A comprehensive source of information on all aspects of nosocomial infections, based on the proceedings of the Second International Conference on Nosocomial Infections, sponsored by the CDC in Atlanta, Georgia, August 5–8, 1980.

PHARMACOLOGY

Understanding Medications: The Hows and Whys of

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* Books received for review are acknowledged promptly in this column. No other obligation is assumed for the courtesy of those sending them for this purpose. Selection for review is made on the basis of merit and reader interest.

continued on page 1918

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Medical News

Birth statistics released by health department

New York City Acting Health Commissioner Margaret T. Grossi, M.D., in mid October released statistics indicating that more than one third of all children born in the City during 1980 were from unwed mothers, and 14 percent of all women giving birth were teenagers.

"There were 99,911 births to residents last year; 36,699 or 37 percent were out of wedlock, and 13,944 were from teenage mothers," Commissioner Grossi said. "More than 75 percent of the teenagers giving birth, 10,837, were not married.

"The total number of live births in New York City has not changed significantly in recent years." Commissioner Grossi continued: "Total births increased slightly in 1980, registering a gain of 981 from the previous year's 98,830. Teenage births decreased by 126 during the same period. Out of wedlock births increased by less than four percent as the 1979 total was 35,343, representing 36 percent of that year's total number of births."

Commissioner Grossi added: "The median age of women giving birth in 1980 was 26.5 years. For teenagers it was 18.3 years. The median age for out of wedlock mothers was 23."

Two new programs

Two new programs—*Primary Care of Common Sexual Problems* and *Chronic Obstructive Pulmonary Disease*—have been added to the AMA Video Clinic library. A total of 17 programs in videocassette format are now available for rental or sale.

Primary Care of Common Sexual Problems reviews criteria for diagnosing problems and synthesizing information on physiologic, psychologic, and sociologic aspects of human sexuality. The program also considers clinical components affecting sexual response and outlines methods of history taking, interviewing, and short-term office therapy. *Chronic Obstructive Pulmonary Disease* reviews diagnostic procedure and capabilities, presents therapeutic regimens and discusses referral criteria.

Other programs in the AMA Video Clinic Library are: *Backache*, *Vulvovaginal Problems*, *Practical Rheumatology*, *The Comatose Patient*, *The Multiply Traumatized Patient*, *Neurological Examination*, *Dizziness*, *Headache*, *Neck Pain*, *Hypertension*, *Acute Gastrointestinal Bleeding*, *Antibiotic Therapy in Office Practice*, *The Depressed Patient*, *Bronchial Asthma*, and *Alcoholism: Early Diagnosis and Management*.

AMA Video Clinics are comprehensive two- to six-hour study courses that analyze the physiology, etiology, diagnosis, treatment, and prognosis on the topics. Each clinic is available in three formats: U-Matic (3/4″), Betamax (1/2″), and VHS (1/2″).

All Video Clinics are sponsored and recognized by the AMA for Category I Credit towards the AMA Physician's Recognition Award.

Each AMA Video Clinic consists of a color videotape, study guide, self-assessment tests, and may either be rented or purchased.

For further information, contact the Division of Marketing and Meeting Services, American Medical Association, 535 North Dearborn, Chicago, Illinois 60610. The telephone number is (312) 751-5951.

Judith Graham Pool postgraduate research fellowships in hemophilia

The National Hemophilia Foundation is accepting applications for two Judith Graham Pool postgraduate research fellowships in hemophilia, to be awarded competitively for the academic year beginning July 1, 1982.

Grants of up to $15,000 a year will be awarded through medical and graduate schools to postgraduate applicants engaged in or planning clinical or basic research relating to hemophilia.

Applications must be received not later than December 15, 1981. Applicants may anticipate a decision by February 15, 1982. Application forms and instructions may be obtained by writing to: The National Hemophilia Foundation, 19 West 34th Street, Room 1204, New York, New York 10001.

Health Department expands child food program: 20,000 young people eating better

A New York City Health Department drive to expand its supplemental food program serving infants to include children up to the age of five, has resulted in the feeding of an additional 8,000 needy, undernourished youngsters in just one year, Acting Health Commissioner Margaret T. Grossi, M.D., announced in October.

The food program is part of the Federal Government's W.I.C. (Women, Infants and Children) project funded by the U.S. Department of Agriculture. Children are enrolled in the program if they are determined to be "at nutritional risk"—eating an inadequate diet or showing signs of poor growth, anemia, or other indications of improper food intake—and whose families meet the eligibility criteria for income.

"In the summer of 1980, the Federal Government granted additional funds enabling the Health Department's W.I.C. program to provide food supplements to preschool age children," Commissioner Grossi said. "Prior to the expansion the Department was supplementing the diets of 12,000 infants. After only one year and an intensive outreach effort by the Health Department's 15 W.I.C. clinics, an additional 8,000 older children were enrolled, now bringing the City's program up to 20,000 children being fed."

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Medicine and religion

This issue of the Journal is largely devoted to publication of the symposium on Medicine and Religion which was presented by MSSNY (Medical Society of State of New York) on October 19, 1980, because of the increasing understanding by both physicians and clergymen that a patient's religious belief affects his treatment and recovery. MSSNY has long felt that this mutual knowledge and concern on the part of both professions should be used to draw them together for discussion of how they can cooperate for the benefit of all patients.

The medical society membership contains physicians of all faiths who can invite all clergymen to participate in programs on medicine and religion. The symposium published herein was highly successful and could serve as a prototype for such meetings at the county society level. It is at the local level that physicians and clergymen come into direct contact with each other in the care of the sick.

MSSNY is proud to present this symposium and hopes that county medical societies will seriously consider such activities of their own.

G.J.L.

Editor's Note. On February 18, 1957, the Sesquicentennial Luncheon of the Medical Society of the State of New York was held at the Hotel Statler in New York City. The speeches presented at this luncheon discussed the "Interrelationship of Religion and Medicine." Participants were the Reverend Eugene Carson Blake, of the Presbyterian Church in the United States of America; Rabbi Abba Hillel, of The Temple, Cleveland, Ohio; and the Very Reverend Monsignor James J. Wilders, of the Archdiocese of New York.

Reverend Wilders, as you will see, was again a participant this year.

For those who may be interested in comparing the thoughts communicated, please refer to the New York State Journal of Medicine, May 1, 1957, page 1651.

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Medicine and Religion*

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Greetings. It is a great pleasure to hold this conference in this prestigious atmosphere. Rockefeller University has always been the haven for creative explorations in the understanding of humanity. The idea for this admirable meeting on Medicine and Religion was conceived by Dr. Stephen Nordlicht, and, I think that we owe him a great debt of gratitude for the fine work he has done.

I do not know if you are all aware that the Medical Society of the State of New York had a committee on Religion and Medicine, as did the American Medical Association. In neither organization has it functioned lately. It was not until about six months ago that Dr. Nordlicht decided to revive the idea. One result is this meeting today.

The two key words in the title of our conference today, medicine and religion, denote a kinship that goes back to ancient times. In almost every culture and religion, priests have served as custodians of the public health, with an interest in both the body and the soul–the whole person. Through the ages the concern of physicians has been with healing, and curing, and also caring for the whole person.

Today, although the unprecedented advances in medical knowledge have produced a wide range of specialization with intense narrow, objective concentrations of medical expertise, our profession has never lost sight of the importance of the value of human dimensions in medicine. There has been an increased awareness in medical circles, in our literature, and in the teaching of medicine of questions involving moral principles, ethics, and respect for individual rights and needs. In addition, more attention is being given to questions that often have a bearing on both the physical and the spiritual interrelationships.

It is this interest that brings us together for dialogue, and on behalf of the Medical Society of the State of New York, I welcome you and extend my thanks to the distinguished members of both the professions of religion and medicine. They have joined us today to give us the benefits of their expertise and thinking, not so much for our benefit as for the benefit of the public which we both serve.

We may not come up with the answers but, as one of the good books counsels us, it is important to ask the questions.

RALPH M. SCHWARTZ, M.D.
President

Medicine and Religion. A medical student attended a series of lectures on "Religious Commitment in Medical Practice," conducted several years ago by the Yale University School of Medicine, and summarized his reaction in these words, "I came wondering how a physician could be religious in his medical practice and still be a physician. Now I'm wondering how anyone can practice good medicine without being religious."[1]

The key word here, of course, is religious. A term and a concept that is not easily definable but that encompasses a broad spectrum of beliefs and practices in man's quest for inner peace and meaning to the incomprehensible through some form of divine intervention and human response. The number and diversity of beliefs are endless but their adherents, no matter where or when they live, do not differ much from one another in their religious aspirations as they

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* Conducted under the direction of the Scientific Program Committee, Medical Society of the State of New York, at Rockefeller University, New York City, October 19, 1980.

"seek assurance of the favor of their gods; protection against the dangers of life; community with their fellows; courage in the hour of conflict; guidance in their daily concerns; release from the pangs of conscience and for most, but not all, hope for some sort of immortality."[2]

In an excellent paper on "Religion and Health," Kenneth Vaux sees a profound influence on health attitudes and behaviors in the "three overreaching themes common to most religions–purity of life, peace in existence, and belief in immortality." And he adds, "Beliefs in God, in His interactions with man, in the divine investiture and inhabitation of the body, in the order and meaning of things, in the possibilities and limits of our powers; all profoundly determine the ways we respond to health and illness, suffering, and death. Courage, comfort and hope for living are found through faith. Fear for life before death and hope in life after death obviously affect concretely the investments we make in our own health and health care systems here and now."[3]

The last few years have seen a noticeable increase in the attention being given in our professional journals and medical societies to the interaction between medicine and religion and to the desirability of more "humanism" in physician-patient relationships. This may be a reaction, no doubt, to the often criticized detachment of many physicians and their preoccupation with a disease rather than the patient; one of the results of the enormous recent advances in medical science and technology. Phrases like moral imperative, ethical dynamics, Judeo-Christian values, respect for personhood, the principle of reciprocity, holistic medicine, the Golden Rule, and Buber's I-Thou relationship abound in article after article.

Implicit in this renewed interest in concern for the total individual, for linkage of therapeutic and ethical functions, and the opportunities of medicine are the common denominators aptly expressed in the Prayer of Maimonides (the famous physician-scholar-rabbi of the Middle Ages). It says "Grant that I may be filled with love for my art and my fellow man . . . let me see in the sufferer the man alone."[4]

It was in this spirit that the Medical Society of the State of New York organized a symposium on Medicine and Religion. The outstanding practitioners from both professions have provided many beneficial reminders and insights.

Bishop Moore, Rabbi Sobel and Rev. Flemister discuss the partnership of the pastor and the physician in the healing process and their complementary roles in affirming the sacredness of life. Dr. Rusk's theme is compassion for sick people in a troubled world and, on a similar note, my effort is to trace the historical relationship between medicine and religion to the need for new insights in our present technological age. Dr. Cooper deplores the loss of faith in our values and calls on medical educators to instill in their students a sensitive respect for the beliefs, values, and individual concerns of others. Dr. Pellegrino deals with religion as a major source of medical morality while Dr. Moser emphasizes both the pragmatic and the philosophical concepts in his discussion of medical ethics. Professor Dubos has surveyed anthropological events in the development of mankind. Based on their own vast experience and observations, particularly with dying patients and their families, specific recommendations are offered by Monsignor Wilders, Mother Romano, and Dr. Glenn.

All the speakers have given us much to think about and to profit from. The moderators, the members of my committee, the staff of the Medical Society, and those who attended this symposium leave us with a thoughtful reaffirmation of something that one easily loses sight of—that our professional commitments and our human commitments are not mutually exclusive.

STEPHEN NORDLICHT, M.D.
Chairman
Scientific Program Committee

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The Clergy

A partner in the healing process

REV. CARL E. FLEMISTER*
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One of the teachings of modern medical practice is that the physician confronted with a patient should be concerned with treating the whole person. But treating the whole person imposes an almost impossible burden on the physician. It seems to demand that he or she should be able to combine all the skills and training of specialists in the varied lines of expertise. If this cannot be managed, then at least the physician ought to recognize that success in treating patients may have to depend on the efforts of others. When the physician detoxifies a child with damagingly elevated levels of lead in the blood, his or her work goes for naught if the child is dismissed to return to the same lead-laden environment that caused the problem in the first place. Full and proper treatment requires a housing inspector. When a negative sputum is produced by a tubercular alcoholic, the physician cannot effect a cure, or halt the spread of an infectious disease, unless others can be enlisted to work on the alcoholism and provide the supervision necessary to assure that the patient will maintain the curative TB regimen for the required period. If the physician can discern the etiology of chronic obstructive pulmonary disease in the dust and fume contamination of the patient's workplace, the disease can be treated; but the job is not done unless and until the services of an industrial hygienist and vocational rehabilitator are sought. Of course, such examples can be multiplied over and over, but the most vital of the physician's coworkers, if I may stretch the definition, is surely the patient.

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* By invitation

Physicians have always known that part of the prognosis for any disease depends on the condition of the patient, and the condition of the patient embraces not only the patient's general health, age, physical tone, and stage of advancement of a disease, but also depends on the patient's attitude, outlook, and state of mind. If all the textbooks are right, and I think they are, in defining disease as a dysfunctional relationship of host, agent, and environment, the state of the host, including his or her mental state, is then a determinant of the cause of the disease. Just as there are patterns of physical behavior that are self-destructive, so are there patterns of mental behavior, attitudes, and feelings that are self-destructive, and counterpart patterns that may be described as self-feelings.

These patterns, while they do not explain to the scientific mind such phenomena as the varying patient responses to well established medical therapy, or the varying degrees of resistance to disease among closely comparable patients, they are, at the very least, strongly suggestive. When confronted with similar challenges, why do some patients rally and others collapse? Why, when bubonic plague swept Europe, did physicians working in the midst of contagion have a death rate so much lower than that of the general population? How do we explain spontaneous remissions of disease? And finally the old question, how do we explain faith healing, the placebo effect, or the causes and cures of psychosomatic illness? I do not pretend to offer explanations, but I can assert that the patient is an essential partner of the physician in effecting cure. The chief contributions of the patient are to muster strength; to rally powers of self-healing; to respond to the physician's ministrations with an attitude and a frame of mind and a sense of self-regard that, I think, can best be described in one word faith.

Faith is a consequential and important adjunct to therapy. It is not peripheral in many patients; it is central and critical. In all patients, it is important. The clergyman is a key figure in assisting the patient to bring his or her faith into play. At this point, let me say a few things about healing from a biblical perspective. The Judeo-Christian understanding of healing is power. Jesus, our prophet, said once, "But it is by the finger of God that I cast out demons."

As a religious person I believe that the source of healing power is God and it comes to us in the form of love. One of the New Testament accounts of a mass healing–and it was nothing like Oral Roberts–is recorded this way, "As he went ashore, he saw a great throng and he had compassion and love for them, and healed their sick." I believe that love and compassion are the powers that enable us to heal. Love and faith are powers to make healing operative. Rudolph E. Graham, in his "Concepts," says, "Christian healing is more than body repair work." People are more than magnificent animals of bone and muscle. We have feelings, we are social creatures, and our relationships are important, but we are also spiritual creatures dependent upon relationships to God.

Several years ago, Dr. Leon Lezer shared with me one of the ways in which he sensitized medical students to the nonmedical aspect of a prospective patient's life. Perhaps they are still doing this in some medical schools. Teams of students were each given a cadaver, but before commencing they were required to write a paper on their conception of the social history of that former living creature based on the condition of the body involved. They learned then, very early in their training, that the patient is a total human being. They also learned that the healing of a broken body is dependent on the physician's understanding of the whole person.

The second point I want to make may seem both paradox and heterodox, yet I say it very deliberately. While it is very clear that doctors of divinity should not attempt to practice medicine, and sometimes we are tempted to do that, the converse is not true. In a sense, doctors of medicine can and should, in their way, practise a ministry of faith. The physician's therapeutic armamentarium contains some appurtenances not too dissimilar from those of priests. His title and diploma are talismans of ordination in his or her profession. The physician wears a stethoscope, where the theologian wears a Cross, the Star of David, or some other religious symbol. The physician wears a white habit instead of black, but after all, they are both uniforms of rank. The physician makes use of medical Latin, while the clergy draw understanding from Greek and Hebrew translations of religious writings; and both of us try to impress the multitudes with what we know in those foreign languages. In place of a pulpit the physician has been given a figurative pedestal in the popular mind.

These similarities have been noted before, but let us not blink at the fact that in both professions, to their continuing shame, the mystique has been used by some practitioners as a cover-up for incompetence and charlatanism. Witness the number of physicians who practice medicine only for the money and the media clergy who use the mystique to raise billions of dollars from poor sick people. The electronic pulpit is a very dangerous phenomenon that we want to look at very carefully, particularly as it is affecting the political process in this country. The fact that this armamentarium is susceptible to perversion should not deter the physician or the clergy from its proper use. I think that the mystique can be put to good use. The physician must treat the whole person, do what can be done to bolster the patient's faith in his own power to recover and in the physician's ability to help. They should use the esteem of their profession to influence the patient's attitude to the possibility of recovery, and this means ministering to the patient's faith.

Aristotle, in his treatises on Persuasion, described three means of persuading: (1) with logical proof, which covers rational appeals by facts and figures; (2) with pathetic proof, which addresses their motives and emotions; and (3) with ethical proof, which depends on the known or apparent character of the speaker. Physicians should use their own ethos employing their professional stature, their authority to heal the mind of the patient, to promote the disposition of the patient to heal himself, to cultivate faith in the patient, and to persuade him to do his part. I urge every young physician with whom I come in contact not to despise the cultivation of a positive, constructive, and authoritative bedside manner. It works. It is not a substitute for knowledge or skill or experience; it is a valuable adjunct to them, sometimes a decisive one for the patient.

The last point that I want to make is that there is help available to the patient; and the medical specialist need not take it on himself to be the last resort. Knowing when to call for the clergy can be a problem. There are patients (those who see the clergy only at weddings and funerals) who may take their appearance on the scene as an alarming sign of imminent death, or as a signal that it is time to abandon all hope for life. If this describes your patient, do not call a clergyman. For most patients, I think, the ministrations of a representative of their religious faith can be very beneficial. There is in the religious faith of most people a tremendous source of strength, of comfort, of confidence, peace of mind. Faith is an attitude-builder, a mind-shaper, and it can serve as a force to change the way people regard themselves and their place in nature.

Both physicians and ministers tend to see people who are in trouble and need help. Both are skilled in using their separate, distinct methods of dealing with separate and distinct, but interactive, kinds of pain.

Physicians may be uncomfortable using some extraordinarily powerful psychological tools with which clergymen are familiar, like prayer. A physician may, even wrongly I think, regard faith as alien to his own methods, which generally rely entirely on the physical, the tangible, the provable. We all, even in this time, have a way to go to overcome an intellectual misconstruction that characterizes some of the medical leadership of the late nineteenth century. To be sure, some church leadership even, in this twentieth century contend that there is warfare between science and religion. But it is a part of medical wisdom to recognize the limits of medical science. It is a part of the art of healing to make available to the patient all means of effecting a recovery. I am suggesting a natural partnership based on a most basic principle, aid to the patient.

Norman Cousins in his book, "Anatomy of an Illness," details his own triumph over a serious disease by combining the medical skills of his physicians and that absolutely requisite act of his own will as a patient. Cousins recounts the experience he had when he visited Dr. Albert Schweitzer in Lambarene. While Schweitzer was leading him on a walking tour, Cousins complimented him rather lavishly on his work and made an off-hand remark about witch doctors. To which Dr. Schweitzer replied, "Don't knock the witch doctor. Come, let me show you how he operates." He took him to a clearing in the bush. They watched as the medicine man divided his patients into three groups: for the first, he prescribed a tea brewed of certain roots and directed that he drink it three times a day at various intervals; for the second group, he would not prescribe but sent them away saying that nothing could be done for them; and to the third group he pointed in the direction of Dr. Schweitzer's clinic, and said, "Go see Schweitzer."

In modern medical practice in this city, you see the same three categories of patients though the proportions, I hope, would be substantially different. But for many patients in all of the groups, you have an available therapeutic source that is not well utilized. The clergy of the community can be more fully used in patient counseling and guidance in a way that can have truly marvelous benefits for the patients. Their own contribution to recovery and well-being can be powerfully reinforced by the clergy's pastoral function.

The Hebrew word 'Shalom' means healthy and whole. 'Shalom', as we all know, also means peace. Both the physician and the clergy with a common goal of Shalom can, by their mutual effort, do much to bring about Shalom in the body, mind, and spirit of those who desire healing. ■

Religion and Sources of Medical Morality and Healing

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In its beginnings medicine was identical with religion and philosophy and thus in direct contact with its sources of morality and healing. The good physician acted according to norms dictated by the cosmic forces that gave him his healing power, or he derived those norms from the nature of man and society as his reason revealed them to be. Healing and moral actions were inextricably combined.

These congruences were first lost in Hippocratic times when medicine emancipated itself from both religion and philosophy. Empiricism entered medicine and the physician's tests of truth were no longer those of the magician, philosopher, or priest. In the Renaissance, measurement, quantitation, and experiment expanded the physician's capabilities. They also widened the gap between his ways of knowing and those requisite for judging right and wrong actions. In modern times that gap widened further as the physician became more technologist than priest, more scientist than philosopher.

Yet medicine remains, as it always must be, a moral enterprise because healing is a transaction between persons. What physicians do is inextricably bound to what philosophers think about man and religionists believe about God. Medicine must therefore ground its morality in sources external to itself either in religion and philosophy as of old, or in society, culture, economics, politics, or some other source that justifies what is good for the patient or for society.

Only in the last decade have medical educators begun to appreciate more fully the moral nature of the medical enterprise, and the necessity for explicit education of their students in ethics and human values.[1,2] Interestingly, the first efforts began with a small group of ministers on medical campuses who sensed the moral challenges in medical and biological progress in the early Sixties. They began to offer informal discussions and seminars on the value desiderata in medical decisions. Their efforts, however, were greeted with minimal enthusiasm and even some hostility for diverting students from the "proper" business of gaining scientific and technical knowledge.

Not until the late Sixties, when the urgency, complexity, and magnitude of the new moral dilemmas had become subject to public debate did medical deans awake to the necessity for curricular offerings in medical ethics. They turned, however, not to the small band of medical ministers who had sounded the alarm, but to professional ethicists and philosophers. These have efficiently and effectively organized the teaching of medical ethics so that today virtually every medical school in this nation teaches the subject in some form.[3]

The philosophers enjoyed greater success than the ministers and so philosophy has completely overshadowed religion as a source for medical morality. For one thing, philosophers entered medical education at a more propitious time when medical ethics had already engaged the public mind. Also, they appealed to reason and not faith, and thus were closer to medical ways of knowing. The obvious complexity of the issues demanded rigorous intellectual analysis. Philosophical ethicists could bypass the historical antipathy of Americans to the formal teaching of religion in the schools. Nor did they face the issues of which denomination and whose ethics should be taught.

In the last two or three years, despite these powerful inhibiting forces, a renewal of interest in the religious sources of medical morals and healing is taking place. Salubrious as the attention to philosophical ethics has been, some of its limitations are now apparent. There is, moreover, a growing public interest in a more "wholistic" approach to healing and a persistent call for more humane and sensitive care for the sick and the dying person. Even the potentialities of faith and prayer as agents of healing are being explored again.[4]

In the next decade we can anticipate a deeper engagement of medicine with not only philosophy but also religion. Medicine will never again become identical with them as it was at its beginnings and remains in some cultures today. But medicine can be enriched by the encounter in at least two dimensions: (1) in more fully recovering the sources of its own morality, and (2) in enhancing the healing relationship with those it seeks to serve.

Thus, it becomes important to sort out more precisely how religion, philosophy, and clinical medicine relate to each other in the contemporary world. I have explored elsewhere the interactions between medicine and philosophy and will place emphasis here on religion[5] in relation to the proper business both of philosophy and medicine.

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* By invitation.

Some operational definitions

Despite the contemporary resistance to definitions, I must clarify how I use the three key terms in this paper—religion, theology, and philosophy. What medicine is has engaged me elsewhere.

I will speak throughout as a Roman Catholic Christian and will reflect the Judaeo-Christian tradition. The contributions of other religious traditions to medicine are acknowledged, but must be deduced by analogy since time does not permit specific elucidation.

Religion. I will take religion to encompass the beliefs, rituals, and norms of conduct that arise from the acceptance or experience of a transcendental power, or powers, outside man that sustain him and require certain things of him. That power in the Judeo-Christian religion is God. The experience of God is characterized by recognition that He is other than man and that He transcends all immediacy, is in fact the Ultimate.[6]

Philosophy. Philosophy is a critical reflection on the ultimate causes and meanings of human experience insofar as they can be known by human reason alone, unaided by acts of faith or by revelation.

Theology. Theology also is a critical reflection on ultimate causes and meanings of human experience but it is reflection qualified by a belief in God in which reason is enlightened by faith, revelation, or religious experience.

Ethical questions. Both philosophy and theology examine the ethical questions of right and wrong human conduct. Philosophical ethic starts with man, his acts and his values, and analyzes human action in the light of what the nature of man or the ideals of human society demand. It might or might not end up with God as the source and justification for the moral order.

Theological ethic, however, starts with a belief in, or experience of God as the creator, ruler, and the end of human existence; who is also the source of happiness and the good and who guides man's conduct along a path of virtue and salvation.

Contribution of theology and religion to medical ethics

With these distinctions in mind, we may turn to the first of the two general questions I wish to examine. What can religion and theology contribute to contemporary medical ethics? What difference does it make to be a Christian or Jewish moralist or physician? What would distinguish them from their secular counterparts? Why are philosophical ethics not sufficient?

There are three limitations inherent in philosophy as a source for medical morality which religion and theology can remedy. First, moral philosophy cannot justify acting morally by using moral arguments; second, philosophy cannot resolve ultimate disagreements among moral principles, reasons and theories; and third, the very highest levels of moral obligation are not attainable solely on philosophical grounds. Let us look at each limitation more closely.

In the best constructed moral system, whether it is deontological, teleological, or utilitarian in its structure, we ultimately come to the question: Why be moral? Everyone who is susceptible to moral argument already agrees that there are reasons for being moral, that they override other considerations and take precedence over self-interest. Yet, if we give a moral reason for being moral we beg the fundamental question.[7,8]

To justify any argument we must stop eventually at some reason not justified by any other reason. To justify moral conduct that reason must come from some nonmoral source. We cannot give legal justifications for law or scientific justifications for science for the same reasons. In any moral discourse using unaided human reason, the supreme egoist can assert his or her self-interest as overriding, and it will not do to simply say that his view is immoral.

This dilemma has led some philosophers to deduce that moral arguments do not need justification, or that all we can expect to do is to describe the contents of a person's moral beliefs to see if they are truly basic and overriding. Others try to resolve the dilemma by an appeal to a coherence theory that describes a "framework" of justification that connects psychological, metaphysical,[9] and other factors. Coherence theories, I believe, only diffuse the uncertainty over a wider spectrum of human thought and experience.

A second limitation in philosophical ethics is the question of how to resolve fundamental conflicts among different moral principles and theories of justification. For example, how do we choose among conflicting contemporary theories of morals? Do we decide to accept, for example, Rawls' constructive Kantianism, as against Nozick's philosophy of economic liberalism, or Ackerman's ideal of neutrality?[10–12] MacIntyre diagnoses the weaknesses of contemporary philosophy as an excess of intuitionism and a lack of systematic connections of ethics with the philosophy of mind, causality and action with metaphysical presuppositions and with political theory.[13] Moral philosophy has, in his opinion, lost its cultural bases for discriminating between opposing moral precepts and principles. The resulting relativism makes moral discourse ineffectual and confusing.

The third limitation of philosophy as a source for medical ethics is the fact that the very highest levels of moral obligation, those that most override self-interest, are in some real sense "unreasonable." We do not mean to deny that philosophy can compel humans to a very lofty morality in medicine and in life. We have only to think of the noble sentiments in the Hippocratic Oath; in the medical philosophies of the stoics as expressed in Scribonius Largus, Seneca, and Libanius, who used expressions like "love", "humanity" and "compassion"; or we can refer to the very practical but still lofty moral doctrines of Confucian morality.[14,15]

There are among us today many humanistic physicians deeply committed to sensitive, responsible and humane care and to the equitable distribution of medical services, yet uncommitted to any religious belief system.

In none of these philosophies, however, do we find those instances of extreme self-sacrifice, of overriding love for the sick as is exemplified in a Mother Teresa, an Albert Schweitzer, or a Father Damian. They are joined by the countless unknown Christian and Jewish physicians who have seen their profession as a spiritual ministry, and a witness to the Fatherhood of God and the brotherhood of man. Sir William Osler at his best is not St. Francis!

We do not need to derogate philosophy to appreciate its limitations as a full justification for medical morality. What is pertinent is that there are limitations and that for the believer they can, and must be, remediated by drawing on the religious and theological sources of medical morality.[16] The believing Christian and Jew knows that he must act in certain ways because his God, his Creator, has made those ways known through his revelations to humankind. The Decalogue, the Sermon on the Mount, the inspired writings of God's prophets and teachers are a source whose precepts and norms are not arguable without denying the reality of God's will for mankind. While there is room for interpretation, there is no room for equivocation about the existence of norms to which men must attend. The Jew and the Christian do not begin their moral considerations with a Tabula Rasa. They start with a text. A text that says certain definite things about the value of life, of truth telling, of keeping promises and covenants, of the dignity and worth of all humans, of the special care and solicitude owed to the defenseless, and all those on the outskirts of society. That text is also a world document, and no human can hold himself free of its message, which is for all humankind.

The believer possesses a integral humanism, a coherent systematic connection with all the facets of man's existence. It is the integrity of that humanism that can resolve the claims of different moral systems. Christians and Jews possess a concept of the full destiny of man as a material and spiritual being. That concept counters all the partial humanisms that crowd our sensibilities today. These partial humanisms are universalizations of one facet or another of man's complex nature as a psychological, economic, biological, social being. But no one of them can rationally be exalted over the others. In Christian, Jewish, and other religious humanisms we take as given what man is for, what his life means, and what he must do to make that life a good one. It is significant that John-Paul II, in the first year of his Papacy, devoted his first Encyclical to a Judaeo-Christian philosophy of man. That philosophy, he shows, is our only ultimate protection against being overwhelmed by our own technical creativity.[17]

Clearly religion and theology open up levels of human service that are not "reasonable" in any philosophy. Religion counsels perfection in all the virtues, natural and supernatural. The Christian religion brings the supernatural virtues of Faith, Hope, and Charity to complement the purely natural virtues. It calls for perfection of the spirit as well as the law of God's Word. The believer is urged to care for and love the most dejected, outcast, severely disabled, and retarded of humankind—those it is difficult to love and serve, those whose social utility is to outward appearances negligible, those who are victims of their own and society's neglect, those who in some of even the best intentioned secular humanisms are granted little priority in the allocation of resources, those whose lives are in danger of sacrifice to spare the rest of society the burdens of their upkeep.

Reason, rationalization, and reasonableness are indispensable to civilized societies. They elevate man, but they are not sufficient for a truly caring society. The fact that religions war with each other, that their precepts have rarely been practiced does not vitiate the fact that they call for degrees of dedication and service that transcend what is deducible by human reason, unaided by revelation.

For the nonbeliever, these contributions of religion and theology will merely be expressions of another set of claims to be set against all the others. For him there remains the undeniable question: How does one choose among religious systems if one cannot choose among philosophical systems? The nonbeliever asks that religious beliefs be justified by unaided human reason, and they cannot be. The act of faith separates believer from nonbeliever. That separation is too profound for treatment in this brief essay. Perhaps a perception of the limitations of philosophical ethics will induce nonbelievers and well-intentioned secular humanists to examine the religious sources of medical morality more carefully.

For the believer the religious dimensions of medical morality are crucial. He is called to elevate the level of his moral obligations above those that bind nonbelievers. His religion must suffuse all his professional acts. He must respond to the call for perfection. I have discussed elsewhere how far we are from such perfection insofar as Christian physicians are concerned.[18] What I want to emphasize here is that it must make a difference, a discernible difference in our behavior, if we are to be authentic Jewish or Christian physicians, nurses, or other health workers.

Accepting a religious source for medical morality does not imply a rigid, undeveloping application of outmoded moral precepts as some would suppose.

Ethicists working sincerely within the Christian and Biblical tradition can approach medical morality differently. Some take a deontological approach, for some, duty is absolute and agape, and covenants are the basis for all ethics. For others, moral choices involve the preference of some acts over others judged by some hierarchy of values. The good act is defined by the highest available good. There is obviously room in theologically inspired ethical systems for the elaboration of the specific norms that should apply in particular moral dilemmas.

The fullness of the Biblical messages will always need elaboration as new problems arise from medical progress. The full richness of the Biblical sources is more than we can conceive at any given moment. Yet it is accessible only when human reason is enlightened by the act of faith, and when faith is fused with an understanding of what science can tell us of the word of man.

The importance of philosophy as an enterprise of educated men is undisputed. But we must not forget that many of the most important medical moral issues can be argued from religious positions as well. As Stanley Hauerwas has indicated in the case of abortion, Christians allow the secular humanists to set the conditions of discourse and especially the conditions of proof.[19] Christians seem reluctant to argue directly from the religious sources of their convictions. The religious perspective can illuminate discussions of subjects as varied as human experimentation, consent, abortion, and euthanasia. The believer should say for each question: "This is how I would answer as a believing Christian or a Jew." Of course, one should observe the usual rules of dialectic even in religious discourse if one wishes to convince, clarify, or defend one's position. But we are under no intellectual compulsion to yield to the secularist the establishment of all the conditions of discourse, or for justification of our actions.

The believing Christian or Jew does not eschew the philosophical sources of medical morality. Rather, he complements and supplements them in ways not open to philosophy qua philosophy: (a) he has an ultimate justification for morality; (b) he possesses an integral humanism that is the benchmark for judging competing moral precepts; (c) he is called to a sublimity of sacrifice for his fellow man that exceeds what philosophy would think "reasonable."

Authentic Healing

Religion is not only a necessary source for grounding and refining medical moral philosophy. It is also a source for authentic healing and, therefore, for the moral conduct of the patient-physician relationship. It is intrinsic to any serious effort to mobilize every resource in the patient's behalf. It is crucial to the physician's covenant to help the patient become "whole" again. On this score it must be taken into account by the nonbelieving as well as the believing physician.

Illness is an assault on the whole person, on the very humanity of the patient, wounding and diminishing it. It deprives the sick person of many of those very characteristics that we most associate with being human; the freedom to use our bodies as instruments for our transbodily purposes, for work, pleasure, leisure; freedom to make our own decisions based on knowledge about consequences and choices; freedom from the power of and dependence on other persons. Illness assaults the identity of self and body, putting the body in opposition to self. It assaults also the carefully wrought balance we have achieved between our aspirations and our limitations, the adjustments that represent our personal choices of what we wish to be and what is important to us. Illness puts us squarely into confrontation with the fragility of our existence and the ultimate fact of our inescapable mortality; it is a state of vulnerability and dependence, arising in a disorganization of our whole person. In serious illness it is the whole person who must be healed, made whole again; the body must be cured and the pain alleviated. But more important we must reassemble a new image of ourselves, strike a new balance, especially when our illness is not curable and where the challenge is to cope, and to adapt. We must then reassemble our whole life and repair our whole humanity and in this effort, medication, surgery, and even compassion and caring can achieve only in part.

To repair the wound in our humanity we must take into account our whole humanity, and that means our whole destiny as a being who is human. The most significant element in that being is the stance we take with respect to a power beyond us, to God whom we must in the special experience of illness either deny and then face our wounded humanity by ourselves, or accept and then ask for succor. For the believer, then, religion is indispensable in medical healing, for medical healing is never totally medical; for the nonbeliever some substitute for religion must be fashioned as either a noble stoicism, an existentialist absurdity, or a frantic raving against the meaninglessness of our fate. Every man and woman who is ill must answer Job's lament: "Why me, Oh Lord! Why now, Oh Lord!"

The need for religion exists, therefore, in every serious illness whether of mind or body if we are truly to heal the person who has the illness as well as the disease the person has. It is rooted firmly in the fact of illness as a transition in existential states perceived by the patient and not defined by the doctor. When the illness has fatal consequences the need becomes ineluctable for every person, believer or not. Because the need is so firmly rooted in the nature of illness it must be recognized and taken into account by all professed healers, whether they themselves believe or not, because religious dimensions are so common to all of humankind.

The ill person is a vulnerable human who enters the healing relationship in a state of inequality, expecting the healer to treat him or her as a human, as a person, as an individual of a rational nature. It is in the vulnerability of the ill person, and the inherent inequality of the relationship, and the diminished humanity of the patient that the obligation arises and binds the physician.

But the minister also is engaged in healing for he too must make whole again. This time the wounding is to the spirit, the soul, and the psyche. By sin, the petitioner is alienated from God, or in the more primitive religions, from the cosmos of the forces of nature, and reconciliation must be effected. The minister is the indispensable mediator, with the transcendent power outside man, with whom reconciliation must be effected. Here, too, the relationship is of inequality, the power lies with the minister. It is in this vulnerability, powerlessness, and inequality of the sinner or petitioner that the moral obligations of the minister arise.

The minister and the physician, therefore, both confront wounded humanity in those they seek to serve. Whether one is ill or seeks spiritual help, one is a "patient"—bearing a burden, seeking to be relieved. Physician and minister begin at the opposite extremes of the needs of those they serve. The physician starts with the anatomical, physiological, diagnostic; the minister with the needs for reconciliation, dealing with guilt, meanings, spiritual destiny. One works with and through manipulation, drugs or reassurance; the other, with prayer, sacrament, preaching of the word. Inevitably they meet in the middle in the personal, social-psychological, individual response of this person in this context of life, and minister and physician now overlap. Two wedges slide snugly, one over the other; the delineation of functions, so clear at the extremes, is almost impossible to draw at the center of the spectrum of needs of the person who is ill, or the person who is alienated from God, or the cosmos.

Every clinician, even in a secular society, knows that illness is fraught with religious overtones. To be ill is to be reminded of the ultimate fragility of our personal existence. The sick person is forced to confront the "last things": the meanings of illness, of life, death, and his or her relationship to a power outside of us. Whether the patient acknowledges or rejects God, he must confront the question of his existence.

The physician who hopes to fulfill the obligation to heal, to make the ill patient whole again, must take these religious aspects of illness into account especially when cure is not possible and care becomes the major responsibility. At a minimum, every physician, believer and nonbeliever, must understand something of his patient's belief and value system, how it can be a source of guilt or healing and how it modifies the whole process of illness and recovery. These dimensions are crucial to a moral physician-patient relationship and the physician, believer or not, is not free to ignore or override them.

Religion offers the believer the only satisfactory meaning for his illness, suffering, and death. For Christians suffering becomes a means of redemption, penance, and spiritual growth. It serves purposes beyond the immediate good of the body. Grief and guilt are not merely "structured" psychologically. Patient and physician turn to God, the source of healing, who clothes suffering with meanings closed to the stoicist who accepts it as a meaningless chance misfortune. The believer can never go "raging" into the night; rather, he returns gently to the source of life itself.

Acknowledgement of God as the source of healing is a needed antidote to the hubris that is so seductive to contemporary medicine. The full capability of modern medicine surely is not to be denied. Its full power is to be employed while recognizing its limitations. The believing physician can, without contradiction, pray with, and for, his patient while using every means science opens to him. The Book of Sirach tells us beautifully how we should honor the physician because he works within the order of God's nature, yet he does not set the order of that nature. "From God the Doctor has his Wisdom."[20]

If there is any truth in my assertions that religion and theology are sources for medical morality and authentic healing then some education in both seems necessary. I appreciate fully the prickliness of this suggestion in a secular society with our political heritage. I do not underestimate the potential abuses. Yet even a morally pluralistic society must acknowledge religion as an aspect of human existence that cannot be ignored in authentic healing.

The analytic and objective presentation of moral philosophy aspects, now common in medical schools, suggests that theology and religion studies can be similarly presented.[21,22] Obviously medical schools cannot, and must not, become instruments for proselytization of denominational doctrines unless they expressly declare this to be their intent—as only a very few have done.

To introduce such teaching will be far more difficult than teaching ethics has been, but the universality of the religious dimension in human life makes it mandatory. Lacking this, no pretense can be made that we are teaching "wholistic" or even authentic healing. The nonbeliever needs this knowledge too in a pluralistic society, if he is to act in the best interests of all those he promises to serve.

Medicine has moved far from the pristine sources of its morality and healing. It has become empirical, quantitative, experimental and technological in its ways of knowing, judging, and acting. These transformations are not to be depreciated, repressed, or reversed as some of the less balanced supporters of "wholism" would suppose. Rather, we must accept, use, and expand the full potential of modern medicine while recognizing its need for sources that no longer lie within it. Those sources are philosophy, which can give rational justifications and derivations for medical moral norms, and religion, which complements and supplements the inherent limitations of philosophical sources for medical morality. In addition, religion is for the believer a source of healing, a source that the physician is morally obliged to acknowledge whether he is himself a believer or not.

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The Sacredness of Life

An ultimate affirmation

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The wisdom of the East and the philosophy of the West continue to exhaust themselves in their effort to solve the eternal question–What is Man? A large body of modern science from biology to anthropology and medicine, and from psychology to sociology and philosophy has made man the principal subject of their concern. Thus for religion, as for science, the human persona becomes the principal universe of discourse. If God is the apex of the religious pyramid, man forms its base. In the truest sense, then, religion is a system of humanism, not the humanism of a limited type which robs man of the possibility of divinity, but of the broader kind that which conceives of man as the child of God.

The religious humanism of which I speak begins in an arena wherein the fundamental problem concerns the meaning of man. One of the earliest considerations of this problem is to be found in the Hebrew Bible. In the stories of creation we are told that God fashioned man out of the dust of the earth, and then breathed His own spirit into his nostrils. Then man became a living soul. Two elements thus enter into the makeup of the human person—body and spirit. This simple, almost child-like view did not rob the ancient thinkers of the sense of mystery and wonder which surround the human person. The author of the eighth Psalm, for example, conveys to us something of this mood: "When I behold Thy heavens," he explains, "the work of Thy fingers, the moon and the stars, which Thou has ordained, what is man, that Thou art mindful of him? And the son of man, that Thou thinkest of him?"

The contrast between finite man and infinite world, the tiny creature and the vastness of nature, impressed itself upon the psalmist despite his limited view of the universe and notwithstanding the exaggerated notion of man that prevailed in the ancient world. When this eighth Psalm was written it was commonly believed that the earth, this planet, formed the center of creation; that the sun was a kind of light and heating plant; that the moon and stars were mere fixtures in the dome of the fermament to adorn and illumine the earth by day and by night; and that the earth with all of its luminaries was built solely for the purpose of man, the darling of creation.

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* By invitation.

This complex of belief, current in both ancient and medieval thought systems continues, ironically, to persist, even in some quarters in our own time. This complex of thought formed the dogma on which not only religion, but both science and philosophy rested as well. Whoever dared doubt that the earth and the heavenly spheres existed solely for man was branded an atheist. The world, therefore, looked with consternation at the impiety of Copernicus, Kepler, and Galileo. These men, through their discoveries, upset the accepted order of nature and shattered man's over-confidence by denying that his dwelling place, this planet earth, forms the center of the universe. Therefore, man the human person, felt himself expelled once more from a comfortable Garden of Eden.

The advance of astronomical science showed that our earth holds no unique and sanctified place by virtue of its size and that, in fact, the universe contains myriads of worlds, some of which are infinitely greater than the one in which we live. These facts were inevitably applied to the question of man's place in the universe, and so again the question was asked in its most important and dramatic form—What is Man?

If astronomy, by enlarging the physical universe appears, in the judgment of some, to have reduced man to comparative insignificance, biology has assigned him to an even more modest place in the order of nature. Ideas emanating from the old prescientific methodology had placed man apart from and above the rest of creation. But modern science has shown to the contrary that man, insofar as his physical being is concerned, in no way differs fundamentally from the rest of the animal world. To be sure this discovery is not altogether agreeable to many people. One of the characters of Robert Louis Stevenson's Suicide Club joined that Society because Darwin's findings on the origin of man robbed him of all that he thought was worthwhile in life. But to open-minded people Darwin's hypothesis constitutes one of the very important contributions to human welfare. Through it medicine, anatomy, physiology, psychology and other sciences have been able to grow and to work some miraculous wonders.

Together with the rest of the animal kingdom, man is riveted to the earth. Man depends on Mother Earth for the maintenance of his body; the earth's very fertility, its great resources, its differences in climate that vitally affect both the physical and moral well-being of persons. In his dependence on physical nature, a human being differs very little from the plants and other animals. Still other important similarities between man and beast become apparent, even to a lay person, when one looks at the skeletons of large simians and of men in the museums of natural history. It is sometimes very hard to distinguish between them. Moreover, medical science assures us that the chemical constituents of the human and other animal bodies are virtually identical. Their functions are the same, their structures alike; as one great scientist stated, bone for bone, muscle for muscle, and almost nerve fiber for nerve fiber the human body corresponds with that of lower animals.

Despite these comparisons it is possible to say, I suppose, that man holds a higher place in the realm of biology, and without gainsaying these facts that there is a sunnier view to human nature. The very results of that same biology seem to tell a different story. One of the high priests of nineteenth century science, Thomas Huxley, wrote in one of his essays titled "Man's Place in Nature": "I have endeavored to show that no absolute line of demarcation, wider than that between the animals which immediately preceded us in the scale, can be drawn between the animal world and ourselves; and I may add the expression of my belief that the attempt to draw a psychologic distinction is futile, and that even the highest faculties of feeling and of intellect begin to germinate in lower forms of life. At the same time, no one is more strongly convinced than I am of the vastness of the gulf between civilized man and the brutes; or is more certain that whether from them or not, he is assuredly not of them. No one is less disposed to think lightly of the present dignity, or despairingly of the future hopes, of the only consciously intelligent denizen of this world."

Now, if man's bodily being is related to the world of animals, there is something within us that also distinguishes us from them. In the view of what I called humanistic religion, the body itself is not considered necessarily evil or corrupt. The same creative principle—God, if you will—that created the stars on high has also molded this magnificence called the body of man. As one ancient poet put it, "The Soul is Thine, and the Body, too, Oh God, is Thy handiwork." Fashioned by God, the body is considered by humanistic religion as the instrument of the spirit. By the side of the primitive instincts, which often rage within that body, there also emerged the human tendencies. The inclination toward good is no less real than the inclination toward evil; the one, in fact, comes as a corrective to the other.

Thus, an adequate view of human nature, while not ignoring the elements of kinship between brute creation and humanity, must not ignore their vital differences. All other living creatures apparently are guided by the law of instinct: they are endowed with certain urges and forces that guide and protect them. But man is more highly endowed. He has been endowed with speech and with reason, and he is thus in a sphere by himself intellectually. As a thinking being, man has become the master of nature; he is the builder of science; he analyzes the structure of physical reality and utilizes this knowledge for far reaching ends; he invents arts; he creates civilization. All progress may be considered the result of man's mental intellectual curiosity and outreach.

Man is also an ethical being. He establishes relationships between himself and his fellow. While struggling for self-preservation, man occasionally sacrifices for others. The Father Damiens and the Florence Nightingales are not unknown to humanity. Men have cast their lives away in order that righteousness can live and in these ways man becomes a religious being. Of all creatures, man alone senses the sacred and crowns his life with its glory. As in the sphere of ethics, and of science, and of medicine, so in religion there have been martyrs to testify to their faith in a divine ideal. Indeed, man lives not only in the material tracts of the body, but man lives also in the spirit. Man is the builder of the golden city of righteousness, of truth, and of holiness. So it seems to me, then, that the dawn of a religious consciousness, which is dependent on a rational capacity unique to the human person changes an entire system of life and its values.

Man begins to regard himself no longer as a mere animal, but as one endowed with the Divine spirit. By Divine spirit I think we mean purpose and plan existing side by side with existence. Regard for the body alone keeps man on the plane of the beast; care for the spiritual nature of his soul links him with the Divine. The life of God, or if you will, the life which is that creative force, that unitary force of which Einstein spoke, that creative principal which seems to flow in all things and in all creatures, that life of God finds its finest expression in the life of the human person. There is where that creative principal can become pure spirit—it can become self-conscious; it can become self-determining; it can become rational; and it can become moral. "What a piece of work is a man," said Shakespeare, "how noble in reason, how infinite in faculty; in action how like an angel; in apprehension how like a god!"

What a piece of work is man! It shall always be a source of unanswerable wonder and awe. And in that humble exclamation "what a piece of work is man," lies a link between medicine and human intellect and religion and faith. ■

Questions and discussion

Dr. Pellegrino, your reference to a renaissance in medical ethics, I believe, suggests an optimism about the state of our profession that, unfortunately, is not universally shared or justified. How can medical schools improve the ethical and moral level of medicine and its practitioners?

Dr. Pellegrino: I suppose I should have said a "renaissance of interest in medical ethics" but I think you touch an important point. Obviously, there is no course that will make someone ethical; there is no course in the humanities which will make one humanistic. We know only too many humanists, in the history of Western culture at least, who have been abominable people. So it is not the course per se that does it. What I think you have seen, and I have been involved in it for 25 years now, is much more discussion of the issues. They are now being placed on the table. There is a much greater openness about medical moral dilemmas, and this is a significant advance, because now it exposes what we do to critical surveillance by other people. This is important.

The second issue of importance, it seems to me, is that the public is becoming involved in the discussion, as they must, because after all medicine is an instrumentality of society for individual and personal and social good, and certainly not for the propagation of the profession. I think that has been an advance.

Third, as you talk to the faculty and the younger people who are involved in some of these issues, opportunities present themselves for effective teaching, not through courses, but by the discussion of a medical moral at the point and moment of clinical truth, when the decision is being made: then it becomes immediate and meaningful and more understandable. I think that all of these things have been healthy. I would not suggest that doctors have by virtue of this renaissance (perhaps this is too strong a word) become more moral necessarily, but I certainly think the sensitivity has been raised. What I think is most critical is medical morality. It is something that everyone should be interested in, it is now being examined by the public, and I think that this is very, very healthy.

As for the future, I see reasons to feel encouraged. The institute I direct has just completed a survey of 120 medical schools. If we go by what the deans and those who run the programs are telling us they seem to be accepting concern with ethics as a legitimate part of the medical education for a significant number of students. They report that most students are very deeply interested in these questions, and this has nothing to do with any particular religious denomination. They want to discuss death and dying and why people did certain things that could not be discussed in class previously. Now it is part of the regular medical curriculum, and I submit that to be a good and competent physician it is just as important to know something of the practices of medical ethics as a formal systematic discipline as it is to know the clinical arts and skills, and I would be happy to defend that at the bedside any time.

Question: *We are seeing what appears to be a swing to the right, with movements like the "moral majority," for example, growing in influence. Do these changes present a problem in terms of values and attitudes?*

Rabbi Sobel: I think what we happen to be viewing currently is part of the tension that we have seen recur throughout various periods of the American historical experience. Maybe it is a tension that is constant, and it comes to the fore in particular periods of time, especially periods of stress and uncertainty. What we are really seeing, I think, is the ongoing conflict between those old words, liberalism and fundamentalism.

The major characteristic of the universe in which we live is change, constant change. We do not live in a static universe, and because we live in a universe that is characterized by constant change, it seems to me that the only absolute certainty that we can affirm, if we are going to be intellectually honest, is that life in its totality is uncertain. I, for instance, do not know with absolute certainty that I will be alive five minutes from now, nor do I know with absolute certainty that I might not die. We often hear that the only two certainties of life are taxes and death, but if you think about it intellectually, even death is not an absolute certainty, and I think because we live in a world that is characterized by constant change, the authentic scientist will say, "I admit that I cannot prove anything because no one given moment is identical to any other moment." I am not even sure what now is. I know what the past is, and I have a conception of what the future is, but even as I say "now" it is past. We all have to live, but because life in its totality is uncertain, if the hypothesis is right, then the fact of the matter is that all of us live our lives on the basis of faith.

What then is faith? It seems to me that one would have to define faith as one's best possible guess, one's most valuable hypothesis in the presence of that which is uncertain, and thereby the physician who is a humanist, is also a religonist. A person who is nondogmatic and nonauthoritarian lives in the presence of a world with unlimited, unfolding, possibility. In that view everything is open to possibility, and nothing becomes dogmatically fixed. It appears to be that growth, growth in medicine, growth in science, growth in the human person, really depends upon that kind of openness to possibility.

Question: *What effect does the so-called "electronic pulpit" have on the humanism so many of us are guided by?*

Reverend Flemister: I think humanism is in great danger in our urban areas and all of us are concerned with what is happening in the urban areas. There has been great disinvestment in New York City—600,000 jobs have left this city, thousands upon thousands of people have been placed in the position of being unable to work and are drifting around aimlessly, not knowing what the future holds. We all live under a canopy of uncertainty, but I think there are some segments of our population who are under a greater strain and stress in terms of what the future holds.

I think that the leaders of the electronic pulpit—and I don't even want to call them fundamentalists—are very dogmatic. If I believed in reincarnation, I would say that they were reincarnated from some of the folks who came over here seeking religious liberty. They are people who, after they became established here, started persecuting everybody the way they were persecuted because they did not believe the same way they did. What has hapened is that a great insecurity has been building up in the minds of many people. I think the electronic pulpit comes in with its air of success, and is an artificial success. I think it says, here is the success that you used to have, come on in and join with us, it will take all of your insecurities away and you will just be very happy. The second thing that they have said is that Jesus has changed his mind about a lot of things, that Jesus is against ERA, Jesus is against school bussing, Jesus is against just about everything. I have not, however, heard them say what Jesus is for. ■

Special Ministry in a Health Care Facility

Mother M. ROBERT ROMANO,*
Carmelite Sisters for Aged and Infirm
New York City

Executive Vice-President, Mary Manning Walsh Home

* By invitation.

A health care facility witnesses to the spiritual, physical, emotional, psychological, and social well-being of people. The purpose and objectives of the Carmelite Sisters for the Aged and Infirm and their staff are to provide a program of complete care for the elderly residents of both sexes without regard to race, color, creed, national origin, sex, sponsor, or disability. Complete care means meeting the total needs of the person by assuring the continued availability of care. A health care facility recognizes the dignity of every person and therefore strives to provide quality care. We believe that all are created in the image and likeness of God, which mandates respect for every person.

Special Ministry In a Health Care Facility is a story which goes back to the year 1929. As a member of a well known congregation, the Little Sisters of the Poor, Mother M. Angeline Teresa had three special characteristics; vision, dedication and love for the elderly.

Vision

If we are to succeed in our work," Mother Angeline wrote, "then we must make our Home not a strange unfamiliar place, but one that by its cheeriness and friendly atmosphere welcomes the aged and gives assurance that this new garden will indeed be their promised land, the fulfillment of their dream, security in their old age and the portal of their everlasting Home." *

Mother wanted to establish a new concept of care for the aged, but national conditions at the time were unfavorable. Two great crisis spanned the period, the great depression and World War II. Mother, however, was a woman of faith, courage, and determination. She recognized that people must be treated as individuals, that services and programs should be adopted to fit their needs, that the Sisters should give the residents a home resembling as much as possible the home that had been theirs for years. At the present time, national organizations give much attention to these unmet needs of the aged and to standards of care and kinds of service planned by seven pioneer Sisters fifty years ago. Finally, this is a record of many day-to-day difficulties, conquered by the grace of God, hard work, and the response of many good people.

The Carmelite Sisters for the Aged and Infirm began originally in the Bronx. Our Mother Foundress was asked to start a new religious community by the late Patrick Cardinal Hayes, Archbishop of New York, that was dedicated to the individual care of the aged and infirm of the great middle class. Her primary goal was to meet the needs of people who desired to spend their later years in a residence for older people. The home would equip itself to meet their present needs, enable them to retain their independence and to keep contact with the community. This would be done by encouraging relatives, family and friends to visit the home and by inviting other social contacts and agencies to the home.

In 1931, with the help and assistance of Catholic Charities, the old RCA building facing Van Cortlandt Park South and Mosholu Parkway in the Bronx was purchased. Thus began St. Patrick's Home, the first permanent Home for the Aged and Infirm, Motherhouse and Novitiate of the new Community until 1947. From 1947 to 1954, thirteen new Homes housing about eleven hundred residents were founded, including Homes in Chicago, Boston and another in New York. The Motherhouse moved from the Bronx to Germantown, New York, with St. Patrick's being given over entirely to a Home for the Aged and Infirm. The work of the Community spread throughout the United States and abroad to Ireland. The primary ideal was to provide for the physical, mental and spiritual needs of these people. This idea, revolutionary when introduced fifty years ago, has been recognized by all leading nonsectarian groups caring for the aged. The National Social Welfare Assembly, in a report dated February 22, 1954, stated: "The primary test of good institutional care is the extent to which the need of the individual is met. Good care (for the aged) will provide for the safety of the residents. It will assume humane treatment—regard for the dignity, rights, and self-respect of the individual." It sums up what the specific needs are, physical, mental and spiritual.

In the life of a Carmelite Sister all of the above needs are met. The physical needs are met by good food, shelter and medicine; the mental needs by loving care, occupational therapy, recreational activities; and the major spiritual needs by daily contact of the Sisters, clergy and religious programs regardless of faith or creed.

Dedication

"Dedication is not something learned from books. It is the fruit of a fervent religious life. It is from dedication that kindness is born. Kindness that greets the residents cordially, that always has a cheerful word and smile. It is kindness that shows little attentions, that notices when an elderly resident cannot eat what is served and provides something else." (Circular letter, dated December 8, 1965, Mother Angeline.) The Sisters have dedicated their lives to this "Special Ministry." It is their ultimate goal to bring strength, courage and faith into the lives of the residents and their families. It is their privilege to bring peace, comfort and hope into the closing years of God's aged and above all to remember them in prayer.

Love

"The watchword and keynote of successful work with the aged is not essentially efficiency, faultless administration, beautiful buildings and fine furnishings. These help of course, but the soul, the vibrant life-giving element is love. Without love the Apostolate of work with the aged becomes meaningless." *

I would like to share with you some of my own experiences as a Carmelite Sister. Why did I choose this particular Congregation of Sisters, its special work, its special ministry? My love for the aged goes back to my childhood days when I was fortunate enough to have lived in the same house with my grandparents. They were people whom I loved and

* Quotes of Mother Angeline from "Golden Jubilee Book."

who showed me how to love. They were giving people and people of faith. It was my grandparents who encouraged, supported, and prayed for me during the years I was deciding my chosen way of life. I shared my life with them, for they were with me, as were my parents, step by step, year after year, until the final day of my total commitment as a Carmelite Sister for the Aged and Infirm. My life has been one of love, joy and satisfaction. I have been privileged to have been a part of the early years of my community. The congregation was only 21 years old when I was introduced to the community 29 years ago. It was a young community and a growing Community of Sisters. I wanted to be a part of this special ministry. I wanted to share my talents, my knowledge and above all my total self with this congregation. I felt that this was where I could best serve God and above all His aged people.

The Congregation of Carmelite Sisters for the Aged and Infirm is unique in that it was the first American Congregation of Women Religious dedicated solely to the care of the aged individual. Currently our congregation serves over 6,000 older persons cared for in 12 states, including Ireland, in 21 Archdioceses and Dioceses. In 50 years the Carmelite Sisters undertook 63 foundations. Over the years some homes were discontinued because they could not make available the services and programs needed to meet the ever-increasing aging population. At a later date, new homes were built in these same dioceses to meet their needs.

Over and over again, our Mother Foundress would remind us and encourage us along the way in our daily life. "I would urge you again to be devoted in your work for the old people. It was a real consolation to see what devoted service can mean to the residents of our Homes, and I was justly proud of the Sisters when any of the residents would stop and tell me how wonderful a certain Sister was. I am sure that when these old people reach Heaven, they will say exactly the same thing to Our Lord, and He will be even more proud of you. Try to make their last days happy and see that all their little needs are taken care of. Encourage them to participate in the spiritual, recreational and other functions in the Home. They are often lonely and need all the kindness and attention you can give them." (Circular letter, Easter, 1961, Mother Angeline.)

In closing I would say that this has been a story of tremendous love, zeal and complete dedication with the firm belief and conviction that "Nothing is impossible to God." ■

Patient Response to Impending Death

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On this Sunday morning as we are gathered to discuss some of our observations of those who are aware that death may be imminent, I find myself recalling my early childhood to determine how I became aware of the meaning of death. My grandfather, who died before I was born, was a Presbyterian minister and as a family we went to Sunday school and church on Sunday morning. On one occasion because my grandmother did not feel up to going I was left to be with her. In 1910 we had no automobiles. We had horses. I had a pony, and had recently been given a new saddle. I wanted to see how it fit but one of the saddle horses was in the main paddock and I had to get him back in his stall. A spirited animal he was all for play. I threw a stone that struck him and partially divided his facial vessels from which blood spurted furiously. Immediately he lowered his head and walked toward me. I was terrified. My grandmother, who had been watching, quickly came out of the house with a handful of flour and held it over the wound; it stopped the hemorrhage. She said, "He will be all right; he will not bleed to death." I had seen dead animals, including horses, but that this prize horse could die from what I had done marked the beginning of my experience with death. Thereafter the deaths of neighbors, relatives, and acquaintenances caused me to think more about death. As a medical student and a clinical clerk I began to see patients for whom death was anticipated and the measures employed to delay or prevent such an outcome. In addition, I observed the ordinary sequence of events between the time of diagnosis of a lethal disease and the time of death.

Over the half century since I graduated from medical school I have been continuously involved with patients approaching death, they were mostly surgical, during my internship and residency training and since then in a teaching medical center hospital. This does not include four years during World War II. For this discussion these periods may be grouped according to age.

1. Childhood and youth
2. The robust and middle aged (18–64)
3. The elderly—65 and over

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* By invitation.

Group 1. Children and youth less than 18 years of age usually have given little thought to death. Only occasionally do physicians discuss potentially critical states with them. Few comprehend the situation of approaching death but for those that do many become terrified.

Group 2. The robust and middle aged (18–64), in the most active period of life of the 3 groups with numerous responsibilities because others are dependent upon them. The sudden awareness of impending death precipitates various reactions amongst this group ranging from surprise to rebelliousness.

Group 3. This third group, those 65 and over, exhibit reactions that are encountered in groups 1 and 2 but to a lesser degree. In addition, they provide the greatest population who accept the matter of impending death as undesirable but inevitable. Some, usually the ill and debilitated, actually say they hope death will not be long delayed.

There are also two other categories that vary somewhat from the age groups. Those wounded in military personnel observed in the Southwest Pacific during World War II and a large number (over 2,000) patients with cardiovascular disease who were operated on when this type of surgery was just being developed.

Military personnel wounded in action

Indeed a unique category is the one I encountered in the Southwest Pacific during World War II.[1] As troops came into the theatre and joined the Sixth Army, I became known to most of them as the individual who did what would be done if and when they were wounded. As a surgical consultant I was in the Foreward Area during invasions. Most of these invasions were amphibious and in many instances the casualty rate was high. Some wounds were painfully devastating and resulted in surgical shock. With the kinds of facilities available heroic surgical salvaging procedures were limited. My fellow officers and I saw many of these young men, talked to them, answered some of their questions and at the same time told them that their likelihood of survival was poor. They accepted the inevitable, often mentioned that they had anticipated this might happen but had hoped it would not. They expressed feeling of satisfaction for having gone through their training and participating in this particular military action. They were concerned about those that they were leaving behind at home, namely family, parents, brothers and sisters, wives, sweethearts or even children.

Contributing to their overall reaction was the fact that many of them had had or were having severe pain, and had received from small cerettes intravenous morphine. Relief from pain, and the euphoria of the medication, probably played a role in the reaction that we observed. Many of these young men exhibited a remarkable ability to accommodate to the irretrievable position that they were in. Whether or not this would have been continued for a period of survival during which they would have an opportunity to think it through I cannot say and I am a little skeptical.[2] Nevertheless, from what I saw over a period of two and one half years in the many military missions, there was a persistent consistency in their reactions.

Cardiovascular surgery

Shortly after returning from World War II, I embarked on the surgery of cardiovascular disease. First came occlusive or obstructive lesions and aneurysms and then mitral stenosis and congenital anomalies. Patients were told by me that their life expectancy, if nothing was done surgically to correct their lesion, was limited as compared to normal individuals. It was also emphasized that there was a risk to the proposed operation, that they might not survive. However, I further explained that I was convinced that with our personnel and facilities the risk was well worth taking. Other doctors, internists, and cardiologists were sometimes less optimistic so that during conferences for selecting suitable candidates for operation, which the patients attended, they became aware of some of the hazards. With increasing success surgery, when indicated, became more frequently accepted. Now, a half century later, surgery for cardiovascular disease has become commonplace in most medical center hospitals. This discipline in introducing surgery into an area where it has not been used successfully is demanding of both surgeon and patient. The conference approach with patient, internists, and surgeons using free and open discussions of the problem, and the meticulous management required are essential because of the risk. Patients and their families when well-informed are great supporters of new approaches, even with high-risk for the very disabled. When death occurs under these circumstances families express a feeling of gratitude that effort had been put forth as the patient had wished.

Response to impending death.

While no one doubts that death is inevitable, most of us are not much concerned about it until something occurs that is interpreted as being an indication that it is closer than it has ever been before.[3] The circumstances differ from individual to individual as do the resulting reactions to this realization. The range is from the matter of fact acceptance to rebellious rejection with uncontrolled emotional outbursts that exceed reasoning.[4] From these the most frequent statement is why does this happen to me? The thinking involved often leads to such questions as:

- Will I have pain as I die?
- How long will it take me to die?
- How do you know for sure when I am dead?
- What happens to me and my body?

Because I have been in teaching institutions all my life, many of my patients have been faculty members and students. As a group they have more knowledge of anatomy, physiology and growth processes. The understanding of the beginning of life from fertilization, through gestation, birth and growth to maturity enables many to consider the final phase, death, as a reasonable conclusion to a remarkable process.[5] Let me discuss some examples.

Example number 1. A business man with evident advanced metastases from a carcinoma of the large bowel was referred to me because of intestinal obstruction. He had not been told of the seriousness of his tumor. This I did, and stated that colostomy was mandatory. He berated the physicians he had seen previously, said he had always worked hard, and why had this developed? He assured me that everyone was interested in his money, not in him. Relieved of his intestinal obstruction he insisted the colostomy was unnecessary. He had little pain, could eat and was improved for several days, and then with weight loss and anemia gradually became debilitated. As this took place he became more irritable, refused to see his wife. There were no children. He spent his time and diminishing energy with two lawyers rewriting wills with instructions to pay the hospital and those in attendance the least possible amounts to avoid legal suits. Some six weeks later he became listless, less responsive, then comatose and died.

Physical pain was not a factor. Bitterness at his approaching death was great. His main concern was that his financial success had been interrupted.

Example number 2. A Majority Leader of the U.S. Senate in the early summer of June, 1953, at age 64, was admitted to the New York Hospital with evidence of metastatic malignancy of unknown origin.[6] In the previous three months he had had numerous examinations without discovery of the primary tumor. In June it was concluded that surgical exploration of the abdomen should be performed. It was at that time that I discussed with him the gravity of his condition and attempted to answer his many questions.

Realization of the probability of death in the near future on his part led to a remarkable preparation of arrangements to provide for his family (his wife was then an invalid) and to transfer his many government and public responsibilities to others. A day or two before his operation he went to Washington and in the U.S. Senate requested the Senator he wished to suceed him. We had many conversations about what he had to do to fulfill his obligations and the possible nature of his disease. He expressed a reluctance to cease to live because he had so enjoyed life in all its aspects. At no time did he mention any indication of what he thought takes place after death. The discomfort and disability he had he tolerated well. Operation revealed widespread tumor, but not the primary site. Informed of this he remained an example of acceptance of the inevitable, satisfied he had done all he could to lighten the burden his death might bring upon his family, his political associates, and the welfare of the country. So evident was his concern for others that his personal reaction to inevitable death was obscured.

Postmortem examination demonstrated the primary tumor site to be in the lung.

Example number 3. A senior member of a two-man team that wrote and produced musical comedies, was brought to me at age 64 by his physician because a carcinoma of the stomach had been found on x-ray examination.[7] He had been told that the prognosis was poor. At operation extensive spread of tumor was present, and a palliative procedure was done. Soon thereafter, as had been agreed upon, the situation was discussed with him and his family and also his partner. The patient, a diligent and effective worker throughout his life expressed the opinion that he had been most fortunate to have so enjoyed his work; to have such a wonderful family and so many friends, but, he added, such good things must end just as surely as they had a beginning. Free of pain and able to eat he decided to return to work and live as he had been doing for as long as he could.

He did just that. One of his recent works was then being widely-acclaimed and he considered it was perhaps his best contribution. For some six weeks, according to his wife, he worked more intensely than he was accustomed to and made plans with his partner for additional projects. Three months after operation his appetite began to wane and he became fatigued on attempting to work. Soon after that he became jaundiced. I had seen him at two week intervals after his operation. On my last visit with him he said he felt "his time was short." He regretted not being able to do more and again expressed his feeling that life had been very good to him. A few days later he became comatose and died.

His reaction was acceptance and a demonstrated feeling of gratitude for his many good fortunes over a life span that ended at age 64.

Example number 4. One spring morning, a Thursday in April, 1955, I was called in consultation to the home of the world's then most outstanding scientist, aged 76. Examination revealed that he had an enlarging abdominal aneurysm.[8] Surgery was urgently indicated. I spent the day with him in his home. Up to that time I had done only a few resections with replacement by cadaver vessels. I told him should his aneurysm further rupture he would die. He said he had lived a long time, had always been busy and enjoyed life, and why go to all the trouble of an operation. By late afternoon, however, he decided to have it done but said he must see his "boys" who were then in school. The next day his pain had diminished. His "boys" arrived the following day and with the encouragement of the doctors in attendance it was decided to delay transferring him to the New York Hospital for operation until Monday. About 2:00 A.M. on Monday, four hours before he was to travel to New York by ambulance, the aneurysm ruptured and death was immediate. He had accepted the likelihood of impending sudden death with equanimity. Lacking an understanding of the pathology present, and lulled into a feeling that the urgency for operation had lessened due to his diminishing pain and the advice of hesitant medical advisors, death occurred with little realization on his part as to what was taking place.

These few comments of my observations scarcely indicate the actual and basic response of surgical patients to impending death. What I have reported is on the surface. The case examples do not reveal the thinking in depth that may be activated as they become aware that the end of life is near. Close association with this category of patients over a half a century and representative of all echelons of society has led me to believe that what most seek is something tangible about what takes place after death. It is my impression that this exists regardless of religious beliefs, personal faith or a lack of either related to extension of life or being.

For example a patient with minimal or no symptoms feels a tumor in his abdomen. If a surgeon after evaluation tells him he has a cancer with extensive metastasis and his life expectancy is, at best, a matter of weeks or months his realization and appreciation of the validity of the opinion is followed by seeking ways and means to altering the probable course. With none available, and with increasing disability, a despondency sets in and usually persists. Dependent upon the patient's relationship to those with whom he is most closely associated, he may reveal and discuss with them his apprehensions seeking an explanation. Those who lack communication suffer in silence. Others find only discouragement from talks and some, it would seem, become less disturbed and express hope until death becomes inevitable or occurs.

Those who are in close proximity to these patients are well represented by those who are here today. We, all of us, could well help our fellow man in his terminal period of life by bringing before the public through the far-reaching news media the actual problems we are dwelling on here. A little thinking before impending death becomes apparent may engender a less fearful reaction. ■

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EDITOR'S NOTE. The following remarks have been condensed and abstracted from tapes of Dr. R. Dubos' talk at the Symposium. They are published with this seminar at the request of the Symposium Committee and because the Medical Society of the State of New York feels obliged to share his insights and contribution to the seminar with our readers and the membership.

Homo Sapiens

Genus or sentient

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When I was asked to participate in this symposium, I came to the realization that in my 80 years of life I had never placed the words medicine and religion together, either on paper or in my own mind. In view of this, I shall not speak about these two words together but, instead, will address that which is special and peculiar to human beings.

Let me begin with the statement—with which I completely disagree—that man is endowed with speech and reason. I think that all evidence is against this. Man is endowed with the potentialities to acquire speech and reason.

There are excellent, well-documented examples of young children, both male and female, who have been isolated from human contact, who not only do not acquire speech, but lose the advantage to acquire it at a later time. Review of the literature reveals that these examples go as far back as the eighteenth century. There are cases of children found in woods living as wolf-children and being raised by wolves; they are children found living in the wild forests of

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* By invitation.

Central Africa; they are children whose parents lock them in cellars. They are children who, for one reason or another, had no contact with other human beings or with human society. They may be physically healthy and mentally intelligent, but they cannot speak, understand speech, nor can they reason. Yet, they are unquestionably members of the species Homo Sapien although they cannot be classified as human beings.

To date I have seen no proof or documentation revealing that these children can progress, adapt, or develop a state of speech or understanding beyond that which is acquired by apes that are being trained and studied experimentally for their ability to learn to speak and indicate understanding.

It is my opinion, and the opinion of many others, that there is a difference in being a homo sapien and in being human. Being human involves humanization; a process of socialization, that can occur in any kind of society. If a child has been socialized before age 6 or 7, in any and all human societies, he can learn to speak any kind of language; he can acquire the habits of any kind of society; he can function anywhere in the world.

The most famous, and perhaps the best known, documentation of this is by Captain Cook. In the early eighteenth century he returned to England from France bringing with him some people from a primitive society. They became the rage of London, and in very little time acquired not only the language, but also the habits of the adopted society. They did not become Englishmen, but they did function, and become humanized or socialized.

In reality, to be socialized is to become part of society. For a society to exist, there has to be some kind of conscensus as to the meaning and structure of life.

Let me turn not to medicine but to health. It is generally believed that animals living in their natural habitat in the state of wilderness are always healthy and are so because they live where they do, eat natural foods, and do natural things. It is also believed that if we were to do likewise we, too, would enjoy good health.

This is another premise with which I completely disagree.

It is very simple to understand why animals in a state of wilderness are healthy. If they have any kind of genetic or physiologic deficiency they cannot survive. If an animal has an accident and cannot continue to function it is soon destroyed by natural or other causes. A living, healthy creature, or animal, seen in a state of wilderness means that one is seeing a creature adapted to the environment in which it lives.

This is the situation where being human is completely different. Human society puts the highest value not in the attributes of survival or being homo sapien. It puts the highest value on qualities of life that transcend survival.

I want to address these values because I am an example of survival not based on good health. Since the age of 7, I have suffered from very serious cardiac deficiencies stemming from rheumatic heart disease. I have, in addition, very poor eyesight. I could not have survived in a wilderness, yet here I am 80 years of age. Without the qualities of life valued by human society I would not have, and could not have, survived.

All human societies, as far as I know, go out of their way to, and do, exert a great amount of effort to protect human beings. Even those who are so severely handicapped that it is unreasonable to keep them alive. This is a very ancient trait, at least 60,000 years old (and probably much older), documented by human remnants found in caves. These skeletal remnants were of adult men who had been badly wounded, possibly from falling rocks. They are men whose arms and legs revealed that bones had been broken when they were young, yet the scars indicated that they had lived to adulthood. Perhaps they had lived because they had been cared for by their social group. There are also indications that some of them were buried on beds of flowers. Flowers not found in growth near the burial site, but brought from a distance. This demonstrates that death to their society meant something above and beyond material death (or life?).

It, therefore, seems to me that religion is an ultimate concern. The word religion comes from the latin religio or reverence. It means that one is linked to something else.

A sense of ultimate concern is something that is almost, and perhaps is completely, identified with human life since the beginning of time. It is seen in the works of art in caves, famous buildings, stone age statues, and in all those extraordinary engravings found on ivory and bones. All of which correspond to or describe the lunar cycles, the plants, and the animals that are associated with certain phases of the year or the moon.

From the beginning of time the homo sapien, the biological species known as mankind, the genus of man, has been something other or rather something more than just a species. He has been a creature that in some way becomes linked to something else . . . . other human beings, the universe, and possibly even the cosmos. Existence as an independent entity would be impossible.

It would be good to discover how the word religion was first introduced. It conveys so beautifully the poetic sense that to be human is to be linked to all the rest of creation. ■

Questions and discussion

Mr. Finn: Rabbi Sobel's name was invoked by Dr. Dubos, and I regard that as an invitation to make additional comments if you wish. Doctor Sobel, do you feel like making any comments?

Rabbi Sobel: Doctor Dubos is right. The words I omitted were "the potentiality of" and in the course of answering a question on a different subject about the characteristic of the universe being constant movement and constant growth also share with you your agreement with Aristotle, about the actualization of the potentiality. I would say that man is endowed with the potentiality for speech, rationality, and a host of other uniquely magnificent possibilities.

Dr. Dubos: Of all the cases that I have read the one that was best studied was republished with interpretation in the Harvard University Press. I believe that it was stated that all those children had developed incredible abilities to see all sorts of things that most of us do not want to see. For example, they had learned to feed (find food), to catch small animals, to do what many African tribes do at the present time, or to do what many Indian tribes learned to do not so long ago. What is proved is that there is an enormous biological adaptability that enables us to live under conditions vastly different from the ones which we are used to. I am convinced that we retain that capability from the stone age. Evidence for this was in the seventeenth, eighteenth, or nineteenth century, when the most civilized Europeans came to this Continent and learned to live in the Western mountains as the Indians did.

Question: *If Harvard was initially founded to train physicians and clergy, and if the ancient Greeks saw a close pattern of relationship between priest and physician, why is there such a lack of connection between medicine and religion in our society today?*

Dr. Glenn: Having a fair concept of what the majority of religions have proposed and the experience of watching patients who are ill, disabled, and not always in impending death, I have observed that the urgency of physicial needs is given a priority in the hospital. The surgeon has to do a dressing, he comes on the floor and he gets full attention, while the clergyman, and this holds for all faiths, stands to the side in order to be out of the way. Why don't they get together and talk? Well, they are too busy, perhaps this is the excuse for not doing many things in this life. I hope that when our medical schools dispel this idea, there will be a better understanding, and that after the meeting of the clergy with the patient, they will get together and talk. Seldom has the clergy approached me; I think I have approached them more frequently than they have me to talk about patients who are in critical condition.

Question: *Dr. Glenn, you stated that 50 percent of the dying patients accept their diagnosis, and 50 percent rebel. It is crucial that we not label people for that rebellion; for that rebellion is merely a form of bargaining, a stage that dying people go through to come to acceptance. And not all people come to this; some stay in denial or anger, bargaining or resignation. This is a statement that is open to comment.*

Dr. Glenn: There is a comment to be made on that. Apprehension is the first stage, and this is usually always associated with an expression of disappointment. If there is time enough to help the patient understand the process, it changes considerably. Many of my patients have been faculty members in medical schools and as a group they have a better understanding of the generation of the life-cycle, from fertilization to the changes that commence with the aging process and continue to death, as a natural process in the elderly. But youngsters are the ones who rebel, and I am sympathetic with them, because they feel that they are being deprived of something.

Dr. Dubos: I can say something about that. Although I have never taken care of patients, I have often been a patient myself. By the age of 80 you are ready for what you describe as "acceptance." You think you have had enough, you are ready to quit, and this happens to me fairly often; but after a while you get a second wind and you start all over again.

Mr. Finn: One statement was submitted that I regard not as a question, but it may deserve reflection and comment: "When a dying patient comes into the health care system, the provider of services is often the last person he or she will meet. The patient is going to be very careful with whom he chooses to speak to about his end-stage of life. If you feel rejected as a provider, don't; you are only being tested. If you really care, dying patients will speak from where they are. If you take the time to take that journey with them, they will speak and you will truly know the meaning of life."

Dr. Glenn: One of the real problems today in our health field is the elderly individual. Frequently, because their friends are few, they feel isolated. The most acute situation is the individual who has malignancy, has had operations, therapy, all the drugs you can think of, and eventually because he has been in the hospital for some time, he is recognized as being hopeless, or incurable. When that permeates the institution, or those caring for him, the doctors and the nurses tend to visit that patient less frequently, except for specific duties, and they do not spend much time with the patient. I have talked to patients who have said the only people who really are interested in us now are the orderlies or the individuals who come in to provide service for the bed facilities. In other words they feel isolated. It seems to me that we need to start in our medical schools to emphasize that these people are still patients, and so long as they live they should have the benefit of not only our physical medical attention, but also our interest and association. Nothing is more depressing, I am sure, to the patient than to feel this way. As one patient told me, I am no longer an interesting case.

Mr. Finn: I think Dr. Dubos is also prepared to comment.

Dr. Dubos: It is not only lack of contact between these two groups. You don't have to be very long in a university to know that specialists in Greek language do not have much contact with specialists in English, or those in Physics. When we become professionals, it is not that we lose interest in the rest of the world, but that we devote ourselves entirely to that aspect which is our special interest. So I do not think this applies only to religion and medicine.

Dr. Glenn: May I ask a question here? Mother Romano, would you tell us what you have observed. You are in an excellent position to say something on this: I take it that you have watched us from an unbiased position?

Mother Romano: I think with the advent of this new concept of pastoral ministry in the Church today that there is a coming together of the medical profession with the religious profession. I will give you an example from our own Home. What is very vital and very important in the lives of the people coming into our home, regardless of their faith or creed is the comfort they receive with a visit from a minister, a rabbi, or a chaplain. I really feel that it is very vital in their lives because these people look for this comforting aspect, and I think we, as religious women, working in the Home try to do this. We try to comfort the people, I think many times they look up to us, and they say, "Sister, help me." I also think that we, as individuals, can comfort the family and hopefully bring them to something that is worthwhile in life and that is the love of God and the love of our Faith. I do not know if that really answers the Question.

We may not be strictly in the medical field, but as a provider, and also as an administrator of a nursing home, I personally try to meet all of our new residents, as we call them, coming into the home. That is part of our philosophy of care. We meet these people when they come in, and we are also with them when they are dying. Death in our home is a beautiful thing. We invite the families, they can stay 24 hours if they so wish, we talk about hospice, and special places for hospice; in fact, our community from the beginning has always been a hospice, and we have treated death as a very special thing. ■

Afternoon Session

To those of you who were not here this morning, may I extend a welcome from the Medical Society of the State of New York. I would like to turn the meeting over to Mr. Harry Schwartz, whose name is very well known to you. He is retired from editorial board of the New York Times, and what most of us do not know, is that he also is Dr. Harry Schwartz, editor of Private Practice; a publications familiar to many of you.

STEPHEN NORDLIGHT, M.D.,
Program Chairman

Thank you Dr. Schwartz and Dr. Nordlicht. I have had to ponder some of these problems in a very personal way. Last April, my oldest son, age 36, died of a brain tumor after four years of struggle. I think there is nothing like that kind of shattering experience to make you think about the problems of eternity, where we come from, where we go, and also, of course, to wonder about the role of religion as well as medicine. To be utterly candid, I am afraid that I am an agnostic. What this whole buzzing confusion means is I envy those who have the certainty of any particular formal creed, because this I think gives them comfort, which I do not have.

I was interested to see that my son, who was basically an agnostic like myself and who, for most of his illness, was in a position to think and act rationally. I might say that both my son and his wife appreciated their Rabbi, who played an enormously supportive role, an enormously helpful role; and I, too, was grateful for it.

In the last analysis, I think what we want, irrespective of our particular creeds or noncreeds, is human concern. Human concern is what we can all offer each other if only we have the will.

HARRY SCHWARTZ, Ph.D.,
Moderator

Physician and Pastor

Need for mutual respect

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I am glad to know that the previous speaker is something of an agnostic. I think any one of us who does not acknowledge being something of an agnostic is lying, no matter how deep his faith or his studies may be, for in any genuine faith there must be an area of mystery, an unknown. Without mystery there is no faith; and it is that mystery which gives us the humility we need, particularly at times of death and pain and crisis in human life.

Like most of us here, I have spent a great deal of time in hospitals both as a pastor and as a person. I lost my first wife after her long struggle with cancer. My mother died recently at the glorious age of 95. She had been in a coma for the last two months because of a series of strokes. When she died we had been fast approaching one of those terrible decisions about life support. I have given talks to groups like this about the pros and cons of life support for someone who is totally unconscious and has no hope of recovery, but it is different when you talk about your own mother. Then—and this, too, is part of the mystery—whether we be physicians or pastors, we become like everyone else, patients or families of patients. If for no other reason, we as physicians and pastors have that experience of common ground; like those we serve, we also find ourselves in the grip of life's suffering and possibilities.

As for the subject that has brought us together, there must be mutual respect between our disciplines. Ideally that respect should begin in school, in our seminaries and medical colleges. It has been difficult to have courses from each other's disciplines taught in our respective schools because of a heritage of distrust between medicine and religion, or perhaps more because of the distrust between science and religion. The Church's ancient distrust of science continues in new forms, not always on purely intellectual grounds. Unfortunately the struggle has often been in terms of control, of power and heresy, resulting in the persecution and excommunication of scientists because they discovered a portion of the truth too threatening to the religious teaching of the day.

By the same token, science exhibited distrust of religion, with some justification, but again not always on purely intellectual grounds. Although we are, I hope, too sophisticated in this day and age to act on such primitive mistrust, it lingers on. Still we acknowledge that truth, whether stated in scientific or religious terms, is truth, and therefore will be consistent and a part of the truth which lies at the mystery of being, which some of us call God.

The ancient mistrust lingers in the attitudes of clergy and physicians toward one another. The clergy still have an inferiority complex about physicians, the physician has now assumed a "priesthood" which once the clergy had as their sole preserve. The television shows about physicians give you a clue. With all the language and equipment and "vestments" physicians have in hospitals, they become rather intimidating, especially to a young priest. This inferiority complex frequently expresses itself as defensiveness. Sometimes that defensiveness takes the shape of territoriality, or dogmatism, quite unattractive and not at all helpful.

By the same token, physicians have their own kind of hubris. I remember attending a seminar like this a few years ago on the subject of who is in charge of making decisions about life support. Some participants said the decision should include the physician, the pastor, the family, and the patient. Others had other combinations. But one physician said, "No, the physician in charge must make the decision. He is the only one who knows enough!" Who can know enough? How can one person ever know enough to make that decision?

So each profession has its predictable weakness. Neither of the disciplines represented here today is perfect: God knows the human beings in those disciplines are not perfect. Still, I believe that if we are humble before the mystery of life we will at least have started in the right place—if we have acknowledged our agnosticism—if you will.

Medical schools and continuing education for physicians should include training in theology. Now you might say, "How can I have a theology if I don't believe in God? Well, even if you don't, you do have a theology of some kind, some kind of construct—a construct of not-knowing the ultimate mystery. Even if you had no interest in that, it would still be important to have a theological understanding of where the Church is coming from, to use that slang phrase.

The Christian heritage to which I subscribe is Anglican, based on faith and reason. This heritage holds that the seeming contradictions which occur from time to time through the ages between the structure of faith and the discoveries of science usually become resolved. Take Darwin for example. There is a case where the Church resisted with all it had (still does in some parts) but finally realized that Darwin and his followers had given us a far richer understanding of the process of creation than the literal interpretation of Genesis. Another example is Biblical criticism; we have admitted that David did not write all of the psalms. In exchange for that fundamentalism we have a deeper understanding of how what we call God, the Holy Spirit, works. Freudian psychology is another example, scarcely accepted by the Church first, yet having an increasing and helpful impact now.

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* By invitation.

Sometimes the contradictions have less to do with the nature of events than with each discipline's way of describing them. For example, take an adolescent religious conversion. I had one. As a young man of 17 I made my first confession and had an absolutely overwhelming emotional experience of God. I was spaced. (We didn't know the word then; I wish I had.) I was spaced for several days. Now I have learned enough about psychiatry to be able to describe to you in psychiatric terms what happened to me. My guilt—sex, and all the rest that happens to adolescents and how religion sometimes gets mixed up in it—erupted but nonetheless even that changed my life and is the event to which I look back even now, over thirty years later, as the time when I sensed my present vocation. So I would say, as a theologian, that God came into my life at that time. To a psychiatrist I was a mixed-up adolescent who had a strange emotional experience. The two disciplines are both correct, describing the same event.

Freud says that God is a projection of the father. Probably. Or you could say that fathers, and mothers, are a good way God has of getting us to know himself or herself, even in little and imperfect ways. It is also said that whenever a man falls in love and marries a woman he is, in fact, taking on the image or memory of his mother. But just because you project your mother onto your wife, does it mean that your wife does not exist? No way! Even some of the most cynical statements about the psychological aspects of religion can often be understood and integrated in religious belief and practice.

Science, too, has its changeable side. As a layman reading an occasional article I know that scientific hypotheses are constantly being revised; they are not constant. As for medical practice: I was born in my mother's bedroom, in a house. My oldest daughter was born when the physician said, "Come in at 10 o'clock on Tuesday and have your baby." So my wife arrived at 10 o'clock, had a shot in the arm, went to sleep, and woke up five hours later a mother. My grandchildren, five of them now, have been born in a bedroom at their home. So goes medical science!

We do have to keep a sense of humor and try not to take ourselves or each other too seriously. As long as we leave some flexibility in our understandings we need not cut each other out. Whether you believe in God or not you must believe that religion, as a human phenomenon, exists and has an effect on your patients. Religion must not go to the extreme of Christian Science, rejecting the help of medicine; nor should medicine become a Christian Science in reverse, shutting out the healing process available to believers.

As we relate to patients it is important that our mutual respect continues, not just for the sake of intellectual openness but for their sakes. I have had the experience of being the means of healing people who were sick. But not often. I am not a healer in any special sense, but just through the normal ministry healing has occurred too often for me to take it as coincidence. And, of course, I have seen physicians heal, again and again. Usually they say, "Well, it wasn't me, I just made it possible for nature to take its course and carry out its own healing process in the body." In the same way a priest may, from time to time, make it easier for the healing process of the spirit to take its course. The strange thing is that even when both things happen, the physician and the priest may be part of the healing of the same patient, and yet never meet. Still we three, physician, pastor, patient, face the common enemy of death, pain and disease.

The patient is one human being. We could describe that human being as a continuum of body, mind, emotion, spirit. The physician has his greatest impact on the body, then a lesser impact on the mind, emotion and spirit in a descending order of importance, depending on his discipline. The priest or pastor begins at the other end of this same continuum, having the most impact upon the spirit. It is only very occasionally that there is a direct healing impact upon the body, and then only if mind and emotion have been touched in the process. Both the physician and the pastor are working with the same human being from, as it were, different directions. The medical healing process is perhaps most understood in terms of the body alone; the other areas of feeling, spirit, fear, the will to live, trust love and their relationship to the healing process are less well known. The physician may believe he can only touch the body of his patients he should be aware of touching their feelings. His honesty and deep sense of responsibility for his patients touch their minds, their feelings and their spirits, increasing the possibilities for healing.

Patients are often afraid of their physicians, although they would not admit it to them directly. Sometimes they will admit it to a pastor or priest who can usually dispel the fear rather quickly if he can speak with the doctor. This is just one example of physicians and pastors helping each other. There is another area where we can be of great help to one another, in facing the fear of death. All of us, all three—patient, pastor, and physician—as human beings have some fear of death. Otherwise we are out of our minds. Perhaps the priest though is more accustomed to talking about death than either the patient or the physician, not as a medical phenomenon but as an experience. Sometimes the priest is absolutely indispensable in dealing with this fear which hangs over the patient, often unacknowledged. The fear of failure which hangs on the heart of the physician, the fear of bereavement in the family, these also must be dealt with. The pastor must be concerned with the healing process up to and including the moment of death. As the healing of the body becomes impossible the healing of the soul becomes more and more important. When this healing is accomplished the person can leave this life with a sense of peace and joy, with a smile on his or her face. I have seen this often. When the patient departs in peace the family who stand around the bed can let their beloved go with joy and confidence. A wise priest can help a physician in this situation. By the same token the physician can help the priest face the fear of some of the medical facts, the hospital surroundings, the smell, the sight of blood and the terror of medicine.

Finally, just briefly, let me talk about a fourth entity in the healing process, the family. In the best of circumstances we would want a team which includes them to provide for the patient a sense of total security—security of care, security of trust in those making decisions and taking care of him, and above all the security of being surrounded by love. In this environment all of the healing gestures of physicians, pastors and friends can bear the greatest fruit. If every patient or parishioner we had were able to talk to the physician at the beginning and keep in touch with him through to the end, it would make all the difference in the world.

It has been a pleasure to share these thoughts with you. ■

Psychiatry and Religion

The long road to our technological age

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Man's need for religion revealed itself very early in his history. The environment he first encountered was harsh, threatening, and filled with terrifying, mysterious forces which he could not understand but would have to overcome if he were to survive. This he successfully accomplished by creating a pantheon of Gods for his protection.[1] What Goodenough expressed when he wrote, "So has man everywhere protected himself by religion," also applied to primitive man. Although, it probably began more as a magical ritual and as this was modified it gave rise to the development of a very early spiritual structure. It should be emphasized here that religion differs from magic in that it involves the belief in some power in the universe greater than that of man himself.[2] In this period the Shaman and the priest began to appear as intermediaries with the supernatural world, as well as also providing a primitive care for the ailing and the injured.[3] The first feeble steps of medicine as a practicing profession were now being taken.

As the centuries passed, man's intellectual growth dramatically continued to transform the world around him. New cultural values were awakening and would influence the minds of men for centuries to come. Athens in a burst of creativeness lavishly bestowed her gifts in literature, medicine, architecture, philosophy, and also religion. It touched on every aspect of man's life. Although Hippocrates, traditionally considered the father of medicine, was interested in the study of the human mind, he could only approach it intuitively without sufficient support of scientific facts.[4] With his death, however, this area of medicine again became the domain of philosophers. Socrates,[5] Plato,[5] and Aristotle[6] all grappled with the problem of mental disease, and with the years there was also added the beliefs of early pantheism, oriental mysticism, and the beginnings of monotheism; but underlying all this was the importance of a growing and vital concern with man.

Although the Greeks had no priests or prophets and possessed no sacred writings or creed, their religious beliefs incorporated a singular purity of thought and understanding that was unique in that age. It was expressed in their lives primarily through their literature and philosophy. The simple eloquence of Aeschylus needs little interpretation:

"God—The Pathways of his
Purpose
Are Hard to Find,
And Yet it shines out through
The Gloom,
In the Dark chance of human life,
Effortless and Calm
He works his perfect Will." [7]

Their pursuit of goodness and truth, which still represents a goal for mankind today, reflects the high ethical values and the hopes they had to share them with the world.

Only as we look back at the different periods in history as medicine was developing, is it possible to more fully appreciate and understand the severe difficulties and hardships which were being encountered. Ignorance and fear created the prejudices which awaited the physician. These were the dark centuries of medicine which probably began with the death of Galen and signaled an end to most scientific inquiry.[8] With it the study of the mind practically ceased to exist and in exchange mystical explanations were offered. Mental illness was now attributed to evil spirits, or to the devil himself, and could result in charges of heresy and probably being burned at the stake. Deeply religious and dedicated men like Luis Vives,[9] Erasmus,[10] and Thomas More[11] tried to cry out against this cruelty and inhumanity but it (and they) had little effect.

Johann Weyer, who lived in the same period, was an unusual and outstanding physician to whom we will always remain indebted for his deep concern and work with the mentally ill. His book *De Praestigiis Daemonun*,[12] which took him twelve years to write, was both scholarly and courageous. In it, he explained not only that these accused witches were unfortunate women who were mentally ill and in need of medical care, but also that, in his opinion, the members of the inquisition were the ones who should be tried and punished. It was due to his efforts that physicians were able to assume the responsibility for the treatment of these patients; thus, laying the foundation for the future formation of psychiatry as a recognized specialty. Although he spoke out strongly and vehemently against the inquisition, he continued to live as a pious and devout Catholic for all of his life. On February 24, 1588, at the age of seventy-three, Johann Weyer died while at work, having lived a full and productive life which reflected his love for mankind.

Despite the work done for many years in the field of neurology and psychiatry, no hospitals were as yet existent to provide the necessary care for the mentally ill. It was only as the eighteenth century was drawing to a close, against a background of revolution as man struggled for further emancipation, that this began to take place. This was due to two men, one an Englishman who was not a physician, William Tuke,[13] and the other the French psychiatrist, Phillipe Pinel,[14] who became the Director of the Bicetre and then later the Salpetriere. Each in his own way felt a compassion for these patients and the urgent wish to help them. Tuke created York Retreat for the humane treatment of the mentally ill which later became the model for our Bloomingdale Asylum. Today this is the Westchester Division of the New York Hospital.

Pinel, soon after his arrival at the Bicetre, began his reorganization of that institution by ordering the removal of chains from the patients. It was a heroic step and no less revolutionary than what was occurring politically on the outside. The fears and prejudices surrounding the mentally ill were slowly beginning to be reduced. Pinel's thinking not only introduced more humane methods for the treatment of the patients but he was also responsible for utilizing the hospital setting for the first time for psychiatric research and education. He had not forgotten the words of Baglivi[15] written almost a century earlier that "the best textbook is the patient himself."

Continued research brought forth many different methods of treatment with little benefit to the patients. It was becoming, however, increasingly evident that unless the underlying psychopathology was fully understood this situation would not change. Another century would have to pass before this was accomplished. In 1893 Freud[16] with his paper on hysteria, which was written in collaboration with Breuer, ushered in a new era in psychiatry. The world began to learn about the unconscious and now possessed the means of beginning to understand and treat the emotionally ill as never before. Freud's discoveries were brilliant and creative and can be described as a triumph of scientific imagination, for only he had dared to explore further what had once been an uncharted area—the mind. There were also others whose names should be remembered, such as Stahl, Langermann, Ideler, Liebault, Charcot, Bernheim; their work provided the foundation upon which Freud's genius continued to build.

His discoveries, initially disturbing and highly controversial, were gradually recognized as scientifically sound, and as the years passed they began to receive the respect which was merited. Freud, despite being gravely ill as well as threatened over the years by German National Socialism and finally forced to flee from his homeland, was still able to continue his creative work until the very end of his life. On September 23, 1939, the world learned the sad news that Freud, who had been living in London, had died.

Today the twentieth century, which has made such impressive gains in every field of knowledge, is also contending with the doubts and questions from our young, concerning the values and morality of our contemporary life. Many have misunderstood and misinterpreted this as a rejection of religion rather than recognizing it as an expression of need for reassurance. Youth's faith has not been lost. It is we, however, who will have to question ourselves and ask whether we have been derelict; whether we possibly have been uncaring, unfeeling, and less concerned with those who may be troubled and in need of help. This long road to our successful technological age also demands that we pause and reflect not only on what we have achieved but what we plan to do with what we possess. It is here that our humanism is being challenged.

The protection of our young, who will always constitute our most precious possession, makes it imperative to think of the world we are bequeathing to them. Our scientific advances have undeniably created a society placing great emphasis on the material values. We have the duty and the obligation of correcting this and pointing out the necessity of balancing these material values with the spiritual ones. However, only by demonstrating this in our own lives can we hope to convince them; otherwise our words remain meaningless idealistic phrases.

Medicine and religion in a way came into this world almost at the same time and initially served together, but then seemed to move apart. Today's conference is to give us the opportunity of better understanding each other and to enable us to find the means of a more effective collaboration. Paul Tillich[17] described this as "Not one of existing alongside each other but a relationship of mutual interpenetration." The differences we may encounter will be a test of our own maturity but, assuredly, will also result in a greater growth for both of our professions.

Some of the problems confronting us today did not exist in the past and will require new insights and, also, a more profound knowledge of medical ethics. The prolongation of life for the dying, fetal research, transplantation, euthanasia, all these will now require decision-making involving not only the physician but also the theologian and philosopher. Lord Ritchie-Calder[18] has rightfully pointed out that our medical progress "has produced an ethical crisis which transcends our conventional ideas of good and evil." Some of our familiar landmarks of the past are being swept away, but together we can build new ones, hopefully with a greater concern and humanity than those which existed heretofore.

As we understand our moral values better, we also learn how intimately entwined they are with our religious beliefs even if the latter are disavowed. For the person who is troubled with problems in this area, a great deal more can be accomplished by the joint efforts of both our professions than by one alone. In hospitals the valuable and important services rendered by the clergy to patients have already been recognized. What may be even more rewarding for certain patients would be a similar collaboration carried on as well outside the hospital. This would be applicable whether we are employing psychotherapy or the more intensive modality, psychoanalysis.

Before closing, I would like to refer to an aspect of man's impressive and continued technological advances which have enabled him to achieve a position of awesome power. Unlike the polyp which blindly fights for its life at the bottom of the sea and will never know that it is laying the foundation of a coral atoll,[19] man does have the capacity of understanding and knowing what he is building or destroying. Today we are at a most crucial period in our history and our survival will depend on both our emotional and spiritual well being. Plato's words, although written many centuries ago, may have even more significance for us today:

"Indeed if we follow my advice, believing the soul to be immortal and to possess the power of entertaining all evil as well as all good, we shall ever hold fast the upward road, and devotedly cultivate justice combined with wisdom; in order that we may be loved by one another and by the Gods, not only during our stay on earth, but also when like conquerors in the games collecting the presents of their admirers, we receive the prizes of virtue; and in order that both in this life and during the journey of a thousand years which we have described, we may never cease to prosper."[20] ■

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Medical Education and Religion

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This conference is, at its core, about values. The medical profession and the society in which it labors are in an unstable situation about their values. Therefore, we find ourselves uncertain about what is right or honest. We tend to act as if we believe it is more important to be credible than to be right, and that to be credible you have to be unattached to anything that professes to seek self-interest. To prove you can say something that can be believed, you must declare your attachments. In this kind of system, he or she who is least attached comes out the most credible. By these criteria I am not to be believed. I am attached.

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* By invitation.

It is scholars and philosophers, it would seem to me, who usually discuss this issue. It lends itself to discourse along high principle and presents a problem to which there is no real answer. One knows which side the angels are on ahead of time. To participate in this discussion, therefore, requires a bias. I state at the outset that my bias is in favor of religion, its generalizable values and its positive value to the practice of medicine.

It is appropriate to ask also, "What is the reason we need to discuss this?" After all, medical education is, in its present form, more training than education. Besides, we like to think that medicine is now so scientifically based that concepts of mystery or *deus ex machina* are no longer needed to direct the minds of aspiring physicians to be. Although we acknowledge that we do not yet know everything, we espouse the view that all ignorance will yield to scientific inquiry. Therefore, since we generally equate the need for religion with a need to deal with the inexplicable, we perceive little reason for dealing with religion in medical school. Further, it is difficult to quantify religion. The demands on the students are great and curricular time is at a premium. Whereas there is some sympathy for dealing with nonscientific issues in the educational program, the areas considered important or appropriate are usually social or sociological issues. Economics, history, and ethics get the most attention. Many folks equate ethics with religion, or if not an equation, at least a substitution for religion. It is clear that ethics and religion can be related even though they are not the same thing.

Medical education is regarded as a form of higher education by most people. It is usually incorporated into a university program. Even faculties like to consider themselves as educators in the most comprehensive sense of the word. Yet, it is hard to discern where in the daily routine of medical education one finds concern for development of character as opposed to development of technical skills. This is not an indictment; it is an observation. I could make the same observation about many university-sponsored, degree-granting programs. Their purpose is to develop and hone technical skills, not to mold character or form values.

Furthermore, we have become obsessed with the rights of the student, rather than with the responsibility of the teacher or educator. We are confused by the rhetoric of social egalitarianism. One reason we are so confused is that we have lost faith in our own values. And the reason we have lost faith in our own values is that we, as educators, have become convinced that what you cannot prove by experimentation in a laboratory, or at the bedside, is probably inappropriate to convey to others. Indeed, sometimes I think we have become embarrassed to say, "I believe."

There is also considerable guilt in the profession, as there is in some of our society as a whole, about the state of things or the state of the union. There is, we have found, injustice, poverty, prejudice, disease, disorder, hate, and hunger. Therefore, we concentrate on analyzing failure rather than on learning how to do the things that make success. We have accepted the notion that misery likes company and have rejected as anti-intellectual the view that success likes individualization.

It is a step forward to raise the question about religion in medical education, mainly because it should force us to ask the question of the medical educators of what it is they are trying to do. I asked the question on several occasions in my last two incarnations, and usually I got some answer about excellence or good medicine. I must conclude that most members of medical faculties have differing concepts of what good medicine is. Their criterion for good education is a reflection of their preoccupation with research or practice rather than with teaching.

However, it is not appropriate for me merely to criticize educators when I can recognize that they have been increasingly relieved of their personal responsibilities to think and feel for themselves on matters of value. Rules and regulations have replaced conscience; projections have replaced hope. This is a result of philosophy and not religion, and medical educators have been in the process of being molded philosophically for more than a generation. Most would deny that they have been progressively losing their intellectual independence. To believe that one could lose one's intellectual independence without compromising spiritual independence is the height of naivete or arrogance.

Unraveling the structure of a gene is a fantastically exciting, important, and demanding accomplishment. But it is no match for being able to persuade a person to follow on the path of human kindness, or to help that person deal with the terror of the unknown, or to accept pain, or to love without embarrassment.

A physician is supposed to be able to do all these things. It is tempting to reason that such quaint notions have been overtaken by technology, sophistication, and education. However, I submit that events have not made the concept of the physician less demanding from the spiritual viewpoint, but more so. It is important to realize that the evidence for change in the heart of man is not impressive. It is not nearly as impressive as is the evidence for change in the mind of man.

We take some comfort in the idea that we select students on the basis of their character as well as for their brains. I doubt that very much. In fact, it is my observation that the selection process is being reduced to a rather simplistic ritual. Law schools have tended to be more forthright about this. Fortunately, the ritual is painful, time consuming, and expensive; thus, the participants feel properly satisfied after the ordeal. It is a religion in itself.

Lest you mistake me, I am not advocating that we admit only religious zealots. Nor am I advocating courses in the medical school on religion. Nor do I think medical classes need to be taught by saints. I am advocating first an awareness of what religion means to people—to patients, in particular—and also what it means to physicians—who, after all, are people.

The medical student must be constantly reminded of the fact that people have other value systems, hopes, and beliefs. It is the obligation of the physician to deal with this fact in a sensitive way.

The teacher must take the time to explain how beliefs, religious beliefs in particular, relate to the diagnosis of disease and to the treatment of people. Often, the teacher cannot articulate that relationship and how it should be handled. That is the reason why the role model is so critical to the system. Selection of teaching assignments needs to be based on criteria other than "it's his or her turn."

There must be a place where the student can ask the troubling questions that beset every student as he or she begins to interact with sick people and their families, to seek an answer to, or at least to discuss, how certain tragedies could have been allowed to happen. The very core of the student's soul is challenged by these interactions between real medicine and its practice.

All right, then, what should be done differently? Do we need to change the curriculum?

All right, then, what should be done differently? Do we need to change the curriculum?

I recently read the provocative little monograph edited by Shriver, entitled *Medicine and Religion.* It calls for strategies to introduce electives or to increase awareness. These are reasonable approaches. But these strategies will mean very little if the role models in medicine choose to continue to diminish the religious aspect of life as part of the concern for good medical practice.

Therefore, it is particularly poignant to have a conference on Religion and Medicine sponsored by the Medical Society of the State of New York. What, I have asked from time to time, does a medical society mean to the medical student and to the medical educator? Is it a trade association whose purpose is to merely protect the economic advantages of the profession? Do those of us who belong wish no one at the academic center would know of our membership? The importance of our effort today cannot be exaggerated, and the Society should be complimented for its leadership. But I would be less than candid if I did not report that the level of understanding and respect required between the academic groups and the practicing physician is considerably less than it should be.

Students, particularly medical students, are keenly aware of what the physicians do and what the faculty says. A system built on rhetoric about its values is transparent and convinces no student. However, a system which in the name of modern technological sophistication or ideological compassion calls for no religion in medical education is destined to produce spiritual cripples. The spiritual cripple who is a physician is at a tremendous disadvantage. Not only will his or her effectiveness be jeopardized, but he or she will be denied the full satisfaction of realizing the joy that comes with being a physician who knows what he or she believes. ■

Sick People in a Troubled World

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I have learned a great deal today about things that were exciting to hear and need to be discussed.

I am going to read three short documents that changed my life in many ways in the last 30 years.

The first one is a chapter I wrote for Edward R. Murrow's book, "This I Believe." It was published in 1963, and I have not changed any of the figures or data, so it is now more than 15 years old.

> I can't remember when I did not want to be a doctor. Even as an adolescent, when I scrubbed floors and ran errands at the local hospital in order to smell ether and go on rounds with the country doctors, surgery did not spell the glamour in medicine to me. It was people—sick people—their suffering, their problems, and their victories that challenged.
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> It has been a rare privilege to be a doctor in medicine's golden era. Far more scientific advances have been made in the last three decades than in all time heretofore. Man's life span has increased from 18, two thousand years ago to 68 in America today.
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> But I have found it impossible to ignore the fact that these great medical advances have posed new problems. Crippled children, who in the past would have died early in life, now survive. They want to grow and work and love and be loved.

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* By invitation

I have heard old people to whom we have added these years ask, "For what—the shelf to wait for death, or an opportunity to live and work in dignity as long as we are able?"

Millions of veterans throughout the world, who have scarred their minds and given parts of their bodies to war, have more than earned their right to live and love and work and to know that their sacrifice has at least been one small stone that is being used to build a better world.

Sick people throughout the world ask their God, "Why must I suffer?" Possibly the answer comes in the work of the potter. Great ceramics are not made by putting clay in the sun, they come only from the white heat of the kiln. In the firing process, some pieces are broken, but those that survive the heat are transformed from clay into objects of art, and so it is, it seems to me, with sick, suffering and crippled people. Those who, through medical skill, opportunity, work, and courage, survive their illness or overcome their handicap and take their places back in the world, have a depth of spirit that you and I can hardly measure. They haven't wasted their pain. Because of this experience, they have a desire to share that is almost a compulsion. It matters not whether they be a physician from India, a Zionist from Israel, a Greek veteran or a Pole disabled in a mining accident—all want to share the understanding they have gained through suffering or by helping those who have suffered.

I believe that this basic and inherent desire of man to do something for his less fortunate fellow transcends religious dogmas, political beliefs, and geographical barriers. If we could only use this universal language, we would have a tool to unravel the babel of tongues and an instrument which would penetrate any iron curtain or closed boundary.

It does not seem strange to me that the sick should turn to those who have suffered for the greatest comfort. And so, in a sick world, it is not strange that we turn to those who have been ravaged by suffering and disease for a common language. If we could start to work here together in a program where all of us have the same goals, it is more than possible that, with God's help, we would find the solution for living together in peace. This I believe!"

The second document is a very short series of sentences. I read them first on Adlai Stevenson's Christmas card in the early 1960's. He worked all year to find the exact quote that he wanted for his Christmas card. We exchanged cards for many years, and when he died his secretary, knowing of my interest and our friendship, sent me the cards that were left. The author is unknown, but it is a prayer of a confederate soldier that was found in a graveyard down in South Carolina. That is all we were able to find out about it. I was very moved by it and I asked permission to use it.

I showed it to a young patient who was in the Institute at that time. He was a student at Princeton University who had been in a horrible automobile accident. He went from a tall, strong, young man to an individual with very severe brain damage, paralyzed on one side, and homebound for over a year. He was the most frightened fellow I had ever seen. He wanted help badly, but did not know whether he had the strength to attempt the necessities. When the card came I gave it to this boy. He read it and then he handed it to the boy in the next bed who had a broken back. As he handed it to him he said, "You know, he is talking about me," and the boy in the next bed replied, "Yes, but he is talking about me, too." That night his father visited him; he was a very distinguished business man in this country. He showed it to his father, and said, "Dad, this man is talking about me." His father read it and he said, "Son, he may be talking about you, but he is talking about me too." He had it cast in bronze, and it has been in our reception room in the Institute now for almost 20 years. It has given great solace to severely disabled people in trouble, and their families. I shall read it to you. Remember this, the confederate soldier's name is unknown:

> "I asked for strength that I might achieve; I was made weak that I might learn humbly to obey.
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> I asked for health that I might do greater things; I was given infirmity that I might do better things.
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> I asked for riches that I might be happy; I was given poverty that I might be wise.
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> I asked for power that I might have the praise of men; I was given weakness that I might feel the need of God.
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> I asked for all things that I might enjoy life; I was given life that I might enjoy all things.
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> I got nothing that I asked for, but everything I had hoped for; almost despite myself, my unspoken prayers were answered.
>
> I am among all men most richly blessed."

The third document is a letter that came after I had been at the New York Times for just three or four weeks; and after I read it, I could not write a column that week. I could think of nothing but this letter. It was from a young boy, whose back was broken in the Pacific, and who had come back as one of the first patients assigned to the Government Hospital on Staten Island. He would not eat; he was not interested in anything; his weight, when I first saw him on making rounds, was about 75 pounds. Finally one day, a very wise Grey Lady saw him and she said, "Is there anything I can do for you today, is there anything you want?" His reply was "Yes, I want to die." He said this every day for weeks; and she asked, "Isn't there something you would like to say before you die?" He said, "Yes I think there is." She said, "Why don't you try to write it?"

There was a group in the hospital that tried to help people to say things. Among them was Meyer Berger, of the New York Times, one of our top reporters whom some of you will remember, also there was John Gunther and a number of wonderful writers. They began to work with him. The first week he only wrote one sentence; they worked on and on and on and then, three or four weeks later he sent me a copy of this letter. This was March 5, 1950, I published it, and this was the prologue:

In 1946 a letter was published in this column from a young veteran in Halloran Hospital, a letter created by suffering, anguish and bewilderment. Last week, after four years of struggle, the writer, John Crown, died. His legacy to the world was an example of courage and a philosophy of life which in these troubled and uncertain days plead even more eloquently for the necessity of understanding than on the day this letter was written. In this era of precocious technology, hydrogen bombs, guided missiles, and all of the additions to the horrors of war that have caused an epidemic of anxiety and tension throughout the world, this pain-wracked boy's prescription for peace among men merits thoughtful rereading." This is the letter, and remember, it was written 30 years ago:

> My name is John Crown, I am a paraplegic at Halloran General Hospital. My physical wounds are very small in comparison with my spiritual wounds. I have come back from death to a world that I no longer care for. I, who have been engaged in the great struggle to save the world from tyranny and who saw my comrades die for this cause, now can find no peace in the world or in my country. Having lived close to death for two years, the reasons why there is no peace seem infinitesimally flimsy. Russia wants the Dardanelles, Yugoslavia wants Trieste, the Moslems want India, labor wants more wages, capital wants more profit, Smith wants to pass the car in front of him, Junior wants more spending money. To these I say, "Is it necessary to kill and cripple human beings for such petty gains?"
>
> All the troubles in the world originate in the common man. The selfish and greedy ways of nations are just the ways of each individual man multiplied a hundredfold. When the morals of the common man drop, so do the morals of the nation and of the world. As long as our individual morals remain at a low ebb, so will be the world. Until each of us stops hogging the road with his car, stops sliding over the seat on the bus, stops arguing over who is going to cut the grass, there will be no peace in the world. If man wishes peace again, he must return to the great Commandment, "Love Thy Neighbor as Thyself for the Love of God."

I have never been without these in my pockets from the time that I received them, and I have worn out many copies. But, I have a new one that I came across just a few weeks ago and it made a tremendous impression on me. I think it is so true and has been touched on, especially by Dr. Cooper.

> Almost all notable attributes—courage, love, hope, faith, loyalty—can be transmitted into ruthlessness. Compassion alone stands apart in the continuous traffic between Good and Evil within us. Compassion is the antitoxin of the soul.

Eric Hoffer wrote this. I do not think you can be a great physician, certainly not a great healer, if you don't have love, understanding and dedication and compassion. I hope we are in the beginning of a new era of student reaction, and I find it in the students who come to us. I tell the students when they come in the summer, and we have a lot of them. "If you spend your summer here, the three months on your Fellowship, and you get to know one quadriplegic with a broken neck closely enough to call you his friend, and when you leave you remain his friend, it is worth your summer because he has a depth of understanding and sensitivity that you need—some of it may rub-off on you."

It has been a privilege to have been here today. I have learned much, and enjoyed feeling that we are all here to try to learn the things we need the most—a closer relationship between medicine and religion, whatever the religion may be. We will all be the better off for it, if it happens. ■

Death and Dying

MONSIGNOR JAMES G. WILDERS*
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Although it is only in recent years that the interrelation between medicine and religion has again begun to be recognized by secular institutions of science, we can trace the close relationship of the two back to the beginning of Christianity, and if we wish to go further back in time, to ancient Judaism. St. Luke, one of the four Gospel writers of the New Testament, was a physician; St. Blaise, a third-century bishop whose intercession we call upon for afflictions of the throat, was also a physician; and St. Cosmas and Damian, great saints of the Middle Ages, were medical doctors. Down through the ages the Church has always lent great encouragement to advances in the field of medicine and surgery.

Four of the last five popes have spoken to medical audiences, the one who did not served only 33 days. Pope Pius XII was the one who spoke most frequently to medical audiences. Several of his messages during 1956 dealt with such topics as corneal transplantation and respect for the dead, heart disease and the whole man, and marriage and parenthood. Dr. Paul Dudley White, then former President Eisenhower's heart consultant, was received in audience by Pope Pius XII in May of that year. After his return to Washington, Dr. White remarked about the Pope's talk, "It was one of the best discourses on coronary heart disease I ever heard."

In another address to a group of American surgeons, the late Holy Father said: "The French have a word for hospital and we still find it in use in New Orleans. It is "Hotel Dieu". What a beautiful connotation is found in that name, Hotel Dieu! God's Hotel!" The Holy Father added: "Doctors and nurses should always bear in mind that their patient has a task to perform in human society and, that done, a rendezvous to keep with his God."

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* By invitation

Open discussion of death

And that brings us right down to the topic on which I've been asked to speak today: "Death and Dying." To introduce what I have to say on this topic, let me say that death is talked about much more freely and openly in our day and age than ever before. Until late years, it was always "Mary left us last week", or "John departed this life", or "Ginny went Home." Anything but the word "death." More recently, however, television, radio, periodicals, newspapers, and other communications media have had many symposia and presentations on death and the dying. Medical schools, nursing schools, colleges, and club groups have sponsored lectures and dialogues on this subject. In 1978, some 40,000 such lectures and symposia were held in colleges, universities and medical schools, not to mention many thousands more that took place on a smaller scale since then.

People often ask me, since I spent 17 years—10 or 12 hours each day—as chaplain of New York Hospital, dealing with thousands of terminally ill and dying patients during that time, "What about telling the patient that he is terminally ill?"

Dr. Elizabeth Kubler-Ross, the psychiatrist and author who has done so much research on "Death and the Dying," in talking about her program, said "It became very clear that the dying patients were indeed terribly lonely and isolated. Many of them were treated like they had a contagious disease. The wives would say, 'I know he has cancer, but don't tell him.' When we went into the patient's room he would say, 'I know I have cancer, but they don't want to talk about it.' This was a very peculiar way of playing games, a conspiracy of silence, of pretending, and all under the pretext of protecting each other. The patients were eager to talk, they were very lonely, and they wanted to share with someone what it was like to be dying."

Aloneness vs communication

I can bear out these findings of Dr. Ross by very specific examples. In all my years (25 day after day, 41 all told) working with the terminally ill and dying, I have found that families and friends in their way of trying to keep the truth from their dear ones, really leave the sick person very much alone and, often, very fearful and worried. These members of the patient's family or friends often whisper among themselves, maybe right outside the patient's room—"Don't tell John. Don't let him know how sick he is,"—and yet any intelligent person cannot help but be aware of this and be much more concerned because of the seeming silence that surrounds him.

Let me tell you the story of a 27-year-old man who died of leukemia a few years ago. This young man was in and out of the hospital three or four times during the last years of his life. His young wife, they had been married just two years and four months when he died, was constantly at his bedside. In his last hospital stay before death he had been hoping against hope and praying daily that he would recover and be well again. Family—brother, sisters and young friends—would come by to entertain him, telling him always he would be home enjoying himself again soon, anything to divert him away from the fact that he might not get well. He called a priest-friend as he just wanted to talk, to talk very honestly about his condition, and his young wife wanted to be there too. After talking about death and what comes after, and about reunion with loved ones in heaven, and after telling him and his wife how perfectly they had carried out their vocation, the priest found that a new peace came over the sick man, his wife, and the sick room. From there on, though they still had great faith in the skill of the patient's doctors and still prayed for a miraculous recovery, there was perfect resignation and peace.

The young man, like so many others, showed he wanted to talk honestly with his wife, about her future and their reunion in an after-life. He wanted to know that he was prepared. I know what a comforting thing it is to a dying patient to tell him that he has served God well and that he has nothing to fear.

I remember an elderly priest, a former seminary professor of mine, whom I visited a few hours before he died. I was about to tell him that he had prepared many young men for the priesthood, had done much for his parishioners, and had given devoted spiritual care to his troops as an Army chaplain in World War II. I know he was grateful and that it gave him more strength and readiness to meet death. His warm smile and grasp of my hand showed his deep appreciation.

Can you imagine people silent and leaving you alone as you face death? Wouldn't you want someone near you to tell you that you were ready? I know I pray, with all my weaknesses, that someone will be near me when death approaches to tell me that I am ready.

Sister Virginia, a middle-aged nun who is an associate chaplain at a reasonably large nearby hospital, believes that "a person's dying is transformed by the companionship and supportive presence of someone standing by his (or her) side as long as needed or wanted." It is Sister Virginia's experience that most people know when they are about to die. She says she has rarely met a terminally-ill patient who does not intimate in one way or another that he knows. To quote this sister again: "We live in an informed era and patients have been updating themselves on the death and dying literature we all read. They understand that generally speaking, radical surgery is not performed for a simple illness and that cobalt and chemotherapy are not given for a benign tumor. To quote further from this nun so intensely devoted to the terminally ill and dying: "I often hear from a terminally-ill patient: 'I don't mind the pain as long as I know I'm getting better' or 'I'm not getting better, am I?' " In these hesitant observations, Sister hears a question behind a question, the patient's first effort to face up to the reality of not getting better.

However, even though a person is aware of his condition, Sister feels that hope is necessary and important to him. Caring persons are needed to listen to the expression of the patient's personal hope, but should not instill or foster false hope.

Patient expectation

Now, what has the dying patient a right to expect of his physician?

First, a patient has the right to expect that the physician is interested in the basic emotional and spiritual problems of the patient in the sick room, particularly of the terminally-ill patient. We are becoming increasingly aware that we cannot treat an illness in isolation from the carrier of the illness, his feeling, his hopes, his fears, his faith. Dr. Max Pinner once said: "The first need is not diagnoses and specific treatment of so-called psychosomatic diseases, but the recognition, which is not new but so frequently forgotten or ignored that every disease is psychosomatic; that is, that it affects both body and soul."

Difficult as it is to accept and deal with tragic and unpleasant situations, the physician must realize that they will be part of his everyday life. He must build up a certain fount of experience as rapidly as possible. Tragedy and failure, futility and guilt are embedded within the life of every person. Until he has faced the basic emotional and spiritual problems of the sick and wrestled with them himself, he is not capable of giving complete care to "living bodies and spirits" to the whole man.

Second, the patient (if he has religious beliefs, and most do) has a right to expect the physician to understand that religion has to do with man's most basic concern, his concern with the meaning of life. Religion deals with everything that helps or hinders the realization of that meaning. It is man's attempt to relate his life to a Supreme Being. In more formal terms, it is "the sum total of beliefs, rules of conduct and rites governing the relations of man with God."

The religious patient believes that life has been impregnated with ultimate meaning. The source of this meaning, the sense that life is worth living, does not rest in man himself; rather, it comes from the Creator of heaven and earth.

This confidence in the ultimate significance of life enables the patient to find meaning in the most critical situation; no experience is capable of shutting him off from divine recourse. The possibility of transforming evil into good is embedded in every circumstance. No matter how disruptive an illness may be, it can be met with confidence which turns defeat into victory. The religious patient believes that God strengthens him to meet all situations, turning them into creative experiences.

Third, and this is a corollary of the "right" just mentioned, the religious patient has the right to expect his physician to understand that for him appropriation of his ultimate meaning involves the use of certain tangible resources. While the content and form may vary, the dynamics behind their observance are the same. It is in this area of special religious practices that the physician will be confronted with considerable variety. Each particular faith has resources that are of special aid to its adherents. To the Catholic (whom I specially represent) the sacraments are very important. To the dying Catholic, so-called "Last Rites" (now more fittingly named the "Sacrament of the Anointing of the Sick") are extremely important. To disregard or minimize the significance of this Sacrament for the terminally-ill Catholic can produce adverse effects on the patient's recovery or peaceful death.

Whether or not one agrees with these religious practices of the different faiths, common courtesy requires physicians to respect that which is sacred to his patient.

Finally, the religious patient has the right to expect the doctor to understand the extent and limitations of his own relationship to him and when he needs a clergyman's services. In this matter, the approach of death is the most obvious occasion. Without revealing any undertone of anxiety or fear, the doctor can suggest with quiet confidence that a clergyman, whether it be rabbi, minister or priest, might be of help at this time, as at other times.

In conclusion, I would like to quote from an excellent seminar, "The Dying Patient and His Family," wherein Dr. Kubler-Ross said, "The purpose of my work is not to help a patient to die; it is to help him to live until he dies." She went on to say, "Even though they cry for it, no one will sit down and let them talk about their fears and their aloneness. In America terminal patients are treated like 'the thing.' Medical people avoid touching them and even looking at them." She thinks being healthy in the presence of someone who is seriously ill makes one feel guilty. She also believes being with a dying person makes one painfully aware of his own mortality, an awareness systematically suppressed in this country. We must all ask ourselves what it is about death that we are afraid of. Is it pain, isolation, afterlife, or all of them together that we fear?

If the dying patient asks questions, we must answer them! ■

Medical Ethics

The less-than-eternal verities

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In this discussion, as others have before me, I will use the word "faith", since I feel it is closer to the heart of the few points I wish to make than "religion".

Of all scientists, I suspect the disciples of the biological sciences have the least difficulty clinging to concepts of faith. The physical sciences lend themselves to a degree of mathematical analysis and solution that tends to lead students to believe that explanations of unknown phenomena will be forthcoming as soon as new systems and principles are elucidated. This was brought home with dramatic emphasis when the constraints on our comprehension of time and space imposed by Newtonian physics were exploded in the era of Einstein and quantum mechanics. A whole new dimension to human thought about natural phenomena was added. However, there remains a significant element of faith even among many hard-nosed physicists and mathematicians who still marvel at the order of things and ponder how it got that way. But most physical scientists really are simply awaiting the next mathematical revelation, the next system that will explain and exceed the current knowledge.

With biological sciences and medicine, in particular, it is different, and we have enjoyed our periodic star-burst revelations about physiology and mechanics of disease. But we are constantly reminded of the finite nature of our knowledge and our limited ability to understand the mysteries of Life.

In contemplating this symposium, I sat down a few weeks back and dug out my threadbare copy of a book that had a profound influence on my early life. It was Alexis Carrel's "*Fearfully and Wonderfully Made*". The faded pages seem naive some 40 years later, but had lost little of their ability to transmit the sense of wonderment and excitement that Carrel felt as he wrote about the magnificence of the human body. And one can find similar eloquent expressions in the writings of Claude Bernard. I do not think that Carrel was agnostic, for he stood in awe of the miracle of man; and although he did not speculate, I suspect that he felt, as others have said, that such a grand creature had to be the work of God. He probably would not have been dissuaded in this belief even in this modern era of exploding myths and miracles.

In the day-to-day practice of medicine, the importance of faith to patients and physicians remains undiminished. To the person who is ill with a life-threatening disease, when the very foundation of life is in jeopardy, there is an inevitable seeking for help beyond, beyond the resources that can be offered by creatures of similar template, creatures that suffer the same intellectual and emotional limitations as oneself. When locked in the power of disease that has eluded the resources of man, one must reach beyond. To translate the power of faith and hope into physiologic reality is no longer a foolish fuzzy-headed pipe dream. Emotions have been linked to measurable peptides. The nature of the substance released in response to hope and belief in prayer has never been quantified by any radioimmunoassay technique; but nevertheless, it is a psychophysiologic substance, every bit as real in a sense of contributing to human function and behavior as insulin or cortisone, or norepinephrine. We can already measure the impact of fear and danger. Now, in a very real sense, we are close to measuring the power of prayer and faith, and perhaps even love, in a significant manner.

The modern physician, however, has been taught to be unyielding in his insistence on data and proof. Having witnessed many so-called miracles of science become revealed through the wondrous expansion of technology and the creation of a whole new array of tools to study physiologic phenomena, he is cynical about reliance on faith. Last month's absolute truth becomes this month's burdensome anachronism. The eternal verities of medicine are less than eternal.

Despite all of this, most of us share the wonderment of Alexis Carrel. We still understand that this fearfully and wonderfully made human mechanism has evolved in the true Darwinian sense; yet we still ask, who did the programming, and why? What is the ultimate destiny of man that he should be provided such a marvelous propensity for survival above all other animals? Surely, it must be more than a divine experiment. Surely, the Creator did not create Man out of sheer intellectual curiosity, just to see how cleverly he could construct such a thing, to observe how long it could run before it runs down or destroys itself.

I confess to you that in more cynical moments I have thought that perhaps we are God's toy, especially during the tormented times of war, and famine, and natural devastation. In darker moments, I have reflected that perhaps we are His ultimate experiment. Perhaps we were designed with exceeding prescience for a life coordinated with the environment of this third planet, allowed to discover that we had evolved from lightning and slime into what, and for what purpose. Indeed, is man a divine prank? I hope not, I suspect not, but in rare moments of depression, as I contemplate the suffering of vast populations on this planet, I am chagrined.

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* By invitation

But to return to medicine, in a simpler time, the comprehension and definition of death came easily, as you have heard most eloquently from Reverend Wilders. Death was an acceptable part of living. I suspect that part of this acceptance was related to the fact that living in some ways was "not all that good." But definitions are not so easy any longer. The progress of medical science, the creation of our new engines of survival have crowded the enemy, Death, onto new, unfamiliar terrain. I speak of death as the *enemy*, since this is the ultimate nemesis of the physician. As physicians, we are conditioned from our earliest days in medical school with every intellectual and emotional fiber to combat the enemy, Death. Death is equated with failure. In recent years we have added chronic disability, and even poor quality of life to our list of enemies, but Death remains at the top. Today with our pacemakers, our volume ventilators, new generation antibiotics, hyperalimentation and a host of new drugs, we can keep our patients alive longer and in better shape than ever before. And, thus, the definition of death has shifted. Despite many learned discussions we still have no firm resolution as to what constitutes "end of life." In many instances, the decision remains subjective. It is usually made in the quiet hours, alone, by the physician. Lingering in the back of each mind in these moments, is the fact that Karen Ann Quinlan still "lives," and there are enough loose ends in our thinking about life and death to make all of us feel uneasy. There is no more personal or shattering cause for soul searching than the decision to reach out and pull that plug.

For many of my earlier years in medicine as an educator, without direct hands-on responsibility for patient care, I wore my agnosticism as a casual intellectual garment. In recent years in private practice, though, I found that of all my many roles as a physician, playing the life and death decision-maker was the most wrenching to the soul and mind. As I reached for my faith in those difficult hours of decision making, I found that it had atrophied from disuse. My silent prayers were hollow, empty. The only other time I had sought solace in prayer was many years ago in a ditch in Korea, when I was convinced that within the next few moments, my life would end. And even in that extreme situation, my silent cries had a very hollow self-serving ring. I know this is not a singular experience. Prayer does not come easily to many of us, yet clinical decisions must be made.

With the old; sick, weary-unto-death patients, most often it is easier. Yet we have all encountered the dying elderly patient who fights with every fiber to take yet another breath. He (or she) battles, to the very end, unwilling to yield. Should one treat such a patient with greater vigor than another in the next bed who lies composed, now weary of the pain and the disability, awaiting friend Death? Perhaps, but again, I am not sure.

With children and young adults it is even more difficult. There is that sense of unfulfilled promise in the young, the agony of knowing that this little one is being cheated of the glories of living. When you add this to the concern that haunts every clinician that tomorrow or next week a new life-saving procedure or drug will materialize, the decision of how hard to push becomes even more devastating. So we struggle to keep young people alive with all our vigor. And then there is the vast midground of those in between.

At times the quality of life we bring to children is dreadful, by any criteria. But they handle it with astonishing grace and lack of complaint. At times I wonder if it is because they are so young, and have no knowledge of any way of life other than pain. On each occasion, the life and death decision presents ethical conundrums of vast complexity.

In these hours I have appreciated the council of clergy. It is a time when every physician should seek help in the full realization that we are all products of our own intellectual, spiritual, and emotional environment, and that our decision-making is conditioned. At times our hearts influence our minds, at other times it is just the reverse. We seek a balance and we seek help to find that balance.

Bishop Moore, you must excuse my personal hubris, but as a clinician, I feel quite strongly that the final decision about life and death must reside in the hands of the physician. The physician must bear the ultimate responsibility; it certainly cannot be a committee decision. We are obliged to seek help from every possible source, and despite my agnosticism, I always seek help from the clergy.

As I have said, there is something in the power of faith, in the strength of belief; although I do not understand it, I envy those who do, and I always seek it. I find it most reassuring, like discovering an island of rock in the midst of the stormy sea, faith or religion and medicine, are unshakable partners in the care of the ill and the comfort of the dying. ■

Questions and discussion

Question: *Monsignor Wilders has said that the patient should always be told the truth. Often, though, telling the patient the truth provides such stress that his prognosis worsens and has a terribly adverse effect on the course of his illness. Is it really wise always to tell the truth to the terminally ill?*

Monsignor Wilders: I think you have to know a little about the patient, his background and religious beliefs. In general, I think they should all be told but with care and never taking away hope. Remember, we said that very clearly. Do not take away the hope that the physician with his skills, and

God with his goodness, may very well bring recovery. But steering them away entirely from the fact that they are so seriously ill, in my experience, is not good; telling them prudently and sensibly, without taking away hope, and it can be done, usually leads to a pace.

Dr. Nordlicht: Although what Monsignor Wilders just said has a great deal of validity, not every personality is able to deal with it. It is really the attending physician who would have to determine, and the minister plays a part in this, whether or not this individual can tolerate, can deal with, can accept something which is so painful and difficult.

Monsignor Wilders: I just want to say that I agree with Dr. Nordlicht to the extent that I would never, myself, tell the patient without consulting with the physician. I have always done that, and I would not ask any clergyman to go ahead and just do it on his own.

Dr. Moser: I would like to make one other point. I agree that this is a highly individualized decision. All of us have had a patient say, "You can tell me anything, but please don't tell my wife," or "Don't tell my kids." They turn the shoe around completely. The physician must make a highly personalized decision; there is seldom an occasion when he does not have an idea of the psychologic nature of his patient, and what the impact of this will be. There is another factor we must take into account today and is what if one does deny hope, and turns-off patients with chronic disease, (for example chronic with fatal tumor) they turn elsewhere. "Elsewhere" is outside into the world of quackery, where there are thousands of people eagerly waiting to take advantage of them. If one finds it is impossible to deal with the patient with a frankness that will debilitate and depress him into a state of unhappiness, then one is obliged to, at least, be frank with the family.

Dr. Rusk: In talking with my patients before they become absolutely terminal one thing that I say is, "To date you have this type of cancer; we don't know the cause, there is no treatment, but it should be comforting to you to know that there are thousands and thousands of scientists who are working for you, all over the world, and who know they may not find the answer tomorrow, ten years from now, or never in our lifetime." It may be a small comfort, but it leaves a little break in the overcast shadows.

Question: *When should one turn off the respirator, or whatever the instrument is that is keeping the terminally ill person alive? How do you make that decision?*

Dr. Moser: Well, I think that question could be the subject of a symposium all unto itself, and I think the decision has to be predicated on every conceivable variable that one could put into the intellectual computer. It is concerned with the patient's desire and the prognosis, that is the ultimate prognosis; it is concerned with the condition of life if life is continued, and many, many more imponderables. Every case has to be considered by itself. One can write down, as people have tried, a set of guidelines 1 through 12. "This" is when someone is alive, and "this" is when someone is dead. But when you are at the bedside at 2 A.M., and all is gone, and the patient is now just a heart-lung preparation that you are keeping alive on a volume ventilator with intravenous fluids or hyperalimentation, the guidelines just don't apply. It is a decision that you simply have to make on your best ethical Judeo-Christian judgment, if you will.

Dr. Nordlicht: We all want life to continue, I think there is no question of that. We are all cognizant today that there is the patient to consider; and the family in turn are guided and influenced by the physician in whom they have confidence. Today, though, when the physician is somewhat uncertain he in turn can, and does, call on the theologian. We really are approaching this a little differently than in the past, when the physician was viewed as a deity and whatever he thought was accepted. It is much more complex, and I think that, as we understand this more fully, we, in turn, will also speak more openly and communicate more readily.

Dr. Schwartz: I would like to make one final comment. We can no longer assume that every patient is covered by the Judeo-Christian world of ideas. The next patient may be a Moslem, of whom there are now tens of thousands, so their Mullah may have to be consulted. When I think of all the potential patients who belong to Reverend Moon's Unification Church, to the Hari-Krishna, and to the other exotic religions, that have ideas that completely contradict our traditional religion, this becomes more complicated every day. ■

A Reasoned Judgment

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Religion has always been part of medicine; for centuries it was all that medicine was, and was always important in the many aspects of medicine. Many subdivisions and multiple headings would be appropriate if one were to analyze religion's role in medicine. Medicine is now more scientific, so that we really are referring to religion and science. Religion is a phase of social science and inspired revelation, is only one part of it; ethics is another and an important component, a dynamic part, of increasing importance and very applicable to this topic today.

Both medicine and religion must be evaluated in relation to the whole of knowledge and human experience, as well as to each other. It must be applied to health as well as to illness. Then, and only then, does it become functional and part and parcel of medicine as actually encountered, as is, and in being. Then the many phrases now in wide use, such as the "whole" patient and "holistic" medicine, are relevent. This contrasts with the segregated components of medicine in isolation, no matter how scientific each may be.

The human being and medicine, as such, cannot be reduced to an equation or a single formula, no matter how complex it be formulated. No one simple solution, nor any simple answer, can be expected. In our continuing analysis and discussion of this subject, suggestions and recommendations can, and probably will, appear and be helpful to all. This is all we can or should expect in the present state of our limited awareness and present knowledge.

The slogan, "science versus religion," or vice-versa, goes back to the old "gown versus town" controversy and is inapplicable today. Religion and science can both be analyzed and analysis and logic yields better understanding. There is no need for controversy and confrontation. True scholarship can be applied to each, adding much to the joys and satisfactions of both—giving a fuller meaning and greater joy to life and death as a result. ■

An added complication...
in the treatment of bacterial bronchitis*

Increasing incidence of ampicillin resistance in Haemophilus influenzae
Ampicillin Resistant Haemophilus influenzae
H influenzae
S pneumoniae

Brief Summary
Consult the package literature for prescribing information.

Indications and Usage Ceclor® (cefaclor Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE)

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs

Precautions: If an allergic reaction to cefaclor occurs the drug should be discontinued, and if necessary, the patient should be treated with appropriate agents, e g pressor amines, antihistamines, or corticosteroids

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms Careful observation of the patient is essential If superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly)

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below

Gastrointestinal symptoms occur in about 2 5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90)

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100) Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported Anaphylaxis has also been reported

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients)

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103080R]

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*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae* [8]

Note Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis Indiana 46285

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High Blood Pressure

Detection, evaluation, and treatment

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The report of the Second Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure has been published in the October, 1980, issue of the *Archives of Internal Medicine*

Guidelines for diagnosis or therapy

This report updates a previous committee study published in 1977, and introduces important new information and guidelines for the practicing physician. Since the first report, several significant new studies have been published,[1,2] which demonstrate: (1) that the treatment of hypertension, even so-called mild hypertension (diastolic blood pressures of 90 to 104 mm. Hg) is beneficial; (2) that blood pressure control is achievable in a high percentage of patients over long periods of time; and (3) that mortality rates and morbidity from coronary artery disease can be favorably affected by treatment at all levels of elevated blood pressure.[1,2] Previous studies had not established a decrease in myocardial infarction deaths following antihypertensive drug therapy. The new committee report recommends, therefore, that all patients, even those with mild hypertension, be treated not only to reduce the number of deaths from strokes, renal failure, congestive heart failure, or hypertensive encephalopathy, but to decrease deaths from coronary artery disease.

The report also stresses that the treatment goal for diastolic blood pressure be set below 90 mm. Hg and that, based on available data, the benign neglect of elevated blood pressure at any level above a diastolic recording of 90 mm. Hg is no longer acceptable.

The committee again advocates the step-by-step care method of therapy if nonpharmacologic methods are ineffective within a reasonable period of time (three to six months). An intermediate or longer-acting diuretic should be used as step-one therapy in most patients, adding either one of several beta-adrenergic blockers (propranolol hydrochloride, metoprolol tartrate, nadolol), or one of the other adrenergic-inhibiting drugs (alpha methyldopa, reserpine, clonidine hydrochloride, prazosin hydrochloride). If one of these drugs in combination with a diuretic is not effective, hydralazine hydrochloride should be added. Guanethidine sulfate remains an excellent step-four drug in resistant cases. Minoxidil should be reserved for patients who have not responded to the above regimen.

This empiric method of management has proved to be highly effective in a large percentage of patients. In the Hypertension Detection and Follow-up Program study, as well as the Veterans Administration Cooperative and Public Health Studies, good results were obtained with diuretic therapy and reserpine. In some cases, hydralazine hydrochloride or propranolol hydrochloride was added, or alpha methyldopa substituted or used as step-two medication. The important point of the recommendations is that therapy should be stepped-up until goal blood pressure is reached, a level below 90 mm. Hg diastolic.

The committee does not agree with some European investigators who utilize beta-adrenergic blocker therapy as first-step treatment. Diuretic agents will usually produce as significant a degree of blood pressure decrease in as large a number of patients with less cost and greater ease of titration.

The committee again stresses the need for adequate patient education, both by the use of booklets and pamphlets and some system, albeit a simple one, for patient follow-up. Two patient education booklets that the authors have found helpful are: (1) *How to Help Your Doctor Treat Your High Blood Pressure*, available through local heart associations, and (2) *High Blood Pressure and What You Can Do About It*, available through the National High Blood

Pressure Information Center, Bethesda, Maryland.

The report also notes that hypertensive patients rarely need to be hospitalized either for diagnostic studies or for treatment. A simple diagnostic evaluation is again recommended. This need not routinely include intravenous urograms, renin determinations, or catecholamine studies. It suggests that an attempt to lower elevated blood pressure in the elderly should be made if this can be done without provoking significant side effects. Although no data are available at present to indicate that lowering isolated systolic blood pressure in the elderly will reduce morbidity and the number of deaths, this may be beneficial if it can be accomplished easily. It has been known for some time that cardiovascular risk, even in the elderly (65 years of age and older), is increased with a rise in systolic blood pressure above 140 mm. Hg and with systolic and diastolic elevations, and that reduction of blood pressure in elderly patients with both systolic and diastolic blood pressure elevations will reduce cardiovascular complications. A new long-term study is presently underway to answer the question of whether or not lowering of isolated systolic blood pressure elevations in these individuals will prolong life.

Conclusion

This report should be read carefully by all practicing physicians. It is not intended to be a rigid guideline for diagnosis or therapy, but it should be helpful in setting criteria for the management of most hypertensive patients.

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Geriatrics

A series of articles dealing with problems in aging

IRVING S. WRIGHT, M.D., Editor

Care of Elderly

Interface of clinical and ethical decisions

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"Pneumonia may well be called the friend of the aged" is one of Osler's[1] most quoted aphorisms. Coined in 1909, it highlights an issue now present more than ever in the daily work of the physician.[2] Was Osler referring to the demented elderly and institutionalized elderly persons, or to the community-residing elderly persons? Is death really a blessing to the elderly individual, or is it a dreaded adversary to be fought with the help of the physician and other members of the health team?

We have now developed both the knowledge and treatments that can cure or control the pneumonias and many of the other deadly illnesses of the heart, lungs, kidneys, and blood. We are faced not only with more therapeutic options than was Osler, but with an enormously greater population of elderly. We are faced with an atmosphere of enthusiastic consumerism and ligitation that pushes the physician toward treatment of all life-threatening illnesses. Perhaps most burdensome and difficult of all is the illness of senile dementia, characterized by many years of life without mental competence, and often accompanied by medical-surgical problems necessitating therapeutic decisions by patient, family, and physician. Thus, the physician is confronted with a high prevalence and a special category of ethical issues in his daily work with the elderly. In fact, it is likely that the impressive demographic and economic prominence of the elderly in our health system has markedly contributed to the new emphasis on ethical issues in the practice of medicine with patients of all ages.[3]

Complicating the ethical issues are economic pressures. Clearly, there is no limitless supply of resources, and thus choices will have to be made. But how, and by whom? Are we to apply criteria such as "a person's employability and so-called productivity?" Are we to be so concerned about "cost-effectiveness" that we make decisions "not to treat" based on such economic criteria?

A danger is at hand. We certainly must participate in making our limited resources do the most good. But any arbitrary social or psychologic criteria, such as age, intelligence, value, or burden to society, will run the risk of leading to further criteria. It will also run the risk of placing the physician in the role of "cost saver" for society, rather than as advocate and healer of the ill. As clinicians we must remind ourselves and our communities that any increased need for austerity in the United States should be equally shared by various industries and sectors, and not fall disproportionately and illogically on health care.

The key issue affecting our clinical approach to elderly patients is the "value of human life." It has a quantitative aspect: Is one day or year in the life of a 79-year-old person any less meaningful than a similar period in the life of a younger person? It has a qualitative aspect: Do we have the right to view or the means to judge the quality of life of, for example, a demented patient residing in a nursing home as a "poor quality" and thus not worth sustaining?

Throughout our experience in the care of older patients in the office, the hospital, their own homes, and in nursing homes, physicians are confronted with clinical issues that dramatically interface with ethical issues. The most prevalent of these issues will be highlighted.

Triage according to age

We are now asked regularly to make cost-effective choices in diagnosis and treatment. We are asked to "triage" our cases, much as the officer and medic on the battlefield had to choose who to treat and who

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Presented in part as a State-of-the Art Lecture at the 61st Annual Session of the American College of Physicians, April 21–24, 1980, New Orleans, Louisiana, and in part at the Fourth Annual Brookdale Meeting on Geriatrics, the Mount Sinai School of Medicine, December, 1980, proceedings to be published in the Mount Sinai Journal of Medicine.

to let die. Age has become one criterion used by some in their "triage" efforts.

Examples of "triage" situations include (1) use of ICU (intensive care unit) beds, (2) admission from an emergency room to an acute-care hospital bed, (3) use of dialysis, and (4) use of consultants and other costly procedures.

Case history. A 49-year-old male is brought to the emergency room with ventricular tachycardia following a myocardial infarction. All four beds in the cardiac intensive care unit are occupied by very ill, newly admitted, elderly patients whose average age is 78. Should one older patient be moved out so that the younger patient can be admitted?

How are young house staff or experienced clinicians to deal with this rather typical dilemma? At times an older patient is indeed moved out of the ICU in such a situation. As stated earlier, if we allow age to be used as a basis, we are opening the way to inequality and prejudice, as well as to additional criteria being applied, such as intelligence, importance in society, and economic status. The issue of a scarcity of medical resources has been highlighted by Fuchs[4] and Childress[5] by asking: "Who shall live?" The shortcomings of establishing criteria based on social values has previously been pointed out here. An accompanying danger is that of choosing the decision makers: Should they be physicians, clergy, lawyers, judges, family, or committees?

Since logical arguments can be presented for all sides in triage situations, it is important that the physician remain the advocate for his patient and that each triage issue be discussed in an open fashion with decisions made on an individual basis for each patient.

There are those who feel that any triage system will inevitably be prejudiced against the elderly. For these skeptics a system of allocation of lifesaving resources based on randomness and chance has been proposed by Childress[5] for those of all ages. This system excludes biases and prejudices and presumes that all life is precious, "not to be categorized as more or less worthy."

As modified by this author for the elderly, this is a two-step system. The first step is that of usual medical criteria, excluding age, such as arrhythmias, heart failure, cardiogenic shock, and others; these criteria are applied to choose those who would benefit from the lifesaving treatment. In the second and final step, choices from this first group are made on a "first come, first served" basis, or by the drawing of "lots."

This appears to be a fair and equalizing approach and deserving of further consideration, study, and action.

Medical or surgical decisions

Approximately 4 to 8 percent (800,000 to 1,600,000) of the elderly U.S. population suffers from senile dementia, with the figure increasing to 20 percent of those over 80 years of age. Who thinks for and speaks for these millions of persons? The physician is faced with an enormous dilemma in deciding about medical and surgical problems experienced by these patients. This is not the relatively uncommon, although much talked about, terminal patient on a respirator, such as the Karen Ann Quinlan situation and the question of discontinuing life-sustaining treatment. Rather, it is the all-too-common dilemma of medical or surgical decision-making with the mentally deteriorated patient who has the likelihood of many more years of life.

Case history. A 78-year-old widow, active as a volunteer in community organizations, has experienced a progressive mental decline. She still drives a car but has had several recent accidents. Finally, she is placed in a nursing home. Shortly thereafter she is discovered to have carcinoma of the colon without apparent metastases. She is not capable of making an informed decision about surgery. Her family, very affectionate and involved, is comprised of a 58-year-old son and a 55-year-old daughter. The son states that his mother "would not want to live." He feels strongly that no surgery should be done. The daughter is more ambivalent and less certain of her mother's wishes. The case is discussed at a "team meeting" of hospital staff and family.

Some of the medical students, residents, and fellows are angry with the son and feel that this elderly woman should be allowed the statistically apparent benefit of surgery. The senior physicians, too, were mixed in their view of what was "right". One physician had known the patient for 10 years.

At a team meeting many feelings are expressed, all focused on what is best for the patient. A decision—not to operate—is reached by the family. Several months later the patient experiences intestinal obstruction. Another meeting with the family produces a decision for a colostomy to relieve the obstruction.

Who should have had the responsibility, as well as the authority, to make the original decision? What were the patient's wishes?

Questionable legality of family role in decision making. Interestingly, it is not at all clear whether or not the adult children have a legal basis for decision-making power[6]; custom has allowed them the role of surrogate decision makers. This appears sensible in that family members seem to be the proper individuals to be responsible. Yet, often the story is different. The family may be emotionally or physically distant. Indeed, there may not be any close family members. This is more often the case for the aged widow, who may outlive her husband and children. There may be matters of inheritance influencing the family decisions, let alone obvious issues of affection and guilt.

The physician, too, will have multiple factors affecting his view: (1) the known therapeutic value and the risks of surgery, (2) the difficulty in dealing with a demented patient on a long-term basis, and (3) the relationship with this particular patient or family.

Also, the physician has no legal right to make this decision for the patient. Traditionally the physician and family, with variable input from the patient, reach a decision, hopefully benevolent, but sometimes desperate, and after much soul searching. The physician who disagrees with the patient's family can withdraw from the case. However, this is not often done since there is an element of abandonment in doing this.

Saikewicz case and decision making by court. Recently, a decision of the Massachusetts courts has renewed attention to this matter of the "incompetent" patient, so long a problem.[7] Saikewicz is a 67-year-old, life-long mentally retarded and institutionalized man, uncommunicative, who developed acute myeloblastic, monocytic leukemia without pain. His physician wanted to treat the leukemia in the hope of prolonging his life a few months to perhaps over a year. His two sisters did not want to become involved. The hospital superintendent asked the probate court to appoint a guardian who then reviewed the matter and recommended against treatment. The probate court agreed with the recommendation and so ordered the hospital. The supreme judicial court affirmed the order.

The logic was that the court felt that a competent adult has the right to refuse treatment for himself; thus, a guardian for an incompetent adult could do the same for the incompetent. The court agreed with the current medical ethic, that "extraordinary means" should not be employed to prolong life when sensible therapeutic efforts have failed and the situation is hopeless.

Karen Ann Quinlan case. The Quinlan case (in re: Quinlan:70 N.J. 10, 355, A.2d 647, certiorari denied, 429 U.S. 922 (1978)) was the first in which a decision was made to allow a mentally incompetent adult to have a guardian (her father) make a decision to discontinue treatment, even if such discontinuance could result in the patient's death. The key point, in the New Jersey court's opinion, was the patient's constitutional right to privacy and thus to refuse treatment. This right was granted only if the patient's prognosis is poor and the patient will remain in a chronic vegetative state. Thus, without the court's involvement, the guardian (plus physician and committee) could make the decision not to treat. The court provided immunity from prosecution for all concerned.

But disagreeing with the New Jersey courts, in the Quinlan case, the Massachusetts court stated that the decision "not to treat" could not be made by a collaboration of family, physicians, and hospital ethics committee.[8,9] Rather, the decision was too heavy for such and must be made only by the courts of law, that is, deciding both to treat and not to treat. The court also refused to equate the quality of a person's life (in the case of the institutionalized, mentally retarded person) with the value of life.

The Massachusetts courts have thus voted "no confidence" in the ability of physicians and families to act on behalf of the mentally incapable patient.[10] However, many have pointed out that the courts are too slow to meet clinical needs; that the New Jersey-type, decision-making process by committees, physicians, and family has safeguards in that it is open to court appeal by any of the parties involved; that the Massachusetts approach will lead to prolongation of treatment while the court tries to decide. The Massachusetts court was saying in effect that the matter of life (or death) is too great a matter for any one person or one profession to decide. But to this author, the courts hardly seem an adequate substitute for family and physician.

Dinnerstein Case: "No-Code" orders and no court involvement. Subsequent to the Saikewicz decision, the Massachusetts Appeals Court decided "In the Matter of Shirley Dinnerstein" (1978, Mass. Appelate Advanced Sheet 736) that judicial approval was not required for a "no-code" order indicating that resuscitative procedures be withheld if the case was one of an irreversibly ill, terminal, and mentally incompetent person. Dinnerstein was an elderly woman suffering from Alzheimer's disease; physicians intended to leave orders stating that no resuscitation procedures be employed if she developed cardiac or pulmonary arrest. The court said that the decision to classify a patient as "no-code" presents "a question peculiarly within the competence of the medical profession of what measures are appropriate to ease the imminent passing of an irreversibly, terminally ill patient in light of the patient's history and condition and wishes of her family." Although removing the courts from, at least, this one clinical situtation, this decision did not fully clarify the role and rights of the immediate family (spouse, children, parents) to give consent for "no-code," yet it appears to require the physician to obtain the consent of the immediate family or the patient's legally appointed guardian.* This decision is not totally contrary to the court's decision in Saikewicz. Since Dinnerstein had no hope of even temporary improvement, there was no controversy, as there was in Saikewicz. Thus, the court emphasized that its involvement in discontinuing treatment was necessary only when controversy existed.

"Brother Fox" case: New York courts involve themselves in decision-making. In the case of "Brother Fox," the New York court followed the Saikewicz decision of the Massachusetts Supreme court in affirming the need for court involvement in decisions not to treat. Brother Fox was an 82-year old priest in a clinically vegetative state and was maintained alive on a respirator. His colleague, Reverend Eichner, was allowed by the Appellate Division of the New York Supreme Court (*Eichner* v. *Dillan*, 73 A.D. 2D431, 416 NYS 2d517 (1980)) to act as committee (guardian) and to have the right to

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* N. Engl. J. Med. 299:875(1978).

request the physicians to discontinue the respirator. In addition, Brother Fox had discussed the Quinlan case while he was mentally competent and expressed his desire not to be maintained on a respirator if he should become incompetent. The court gave great weight to this previously stated view of the patient, although it did not make it a requirement to uphold a decision not to treat. Further, in Quinlan, but not Saikewicz, the court granted immunity to medical personnel if court procedures as outlined were followed (Brant, J.: Last Rights: An analysis of refusal and witholding of treatment cases, Missouri Law Review **46**: 377(1981)).

These decisions (Quinlan, Saikewicz, Dinnerstein, and Eichner) represent the views of various state jurisdictions and lack consistency in their approach. The courts have not yet set out clear consistent guidelines in the matter of incompetent patients and permission or refusal of treatment (Shaub, H.Z.: The right to refuse medical treatment: Under what circumstances does it exist?, Duquesne Law Review 18: 607(1980), and Roth, A.B., and Wild, R.A.: When the patient refuses treatment: Some observations and proposals for handling the difficult case, St. Louis University Law Journal **23**: 429(1979).

*Penultimate Will**

As stated earlier, the most prevalent situation relevant to the uncommunicative patient and the need for medical decision making is not the dramatic case of the dying patient on the respirator but rather the very much alive, mentally incompetent, and usually elderly individual, suffering from senile dementia and with the likelihood of many remaining years of life. Since most senile dementia patients cannot make an informed decision when presented with treatment alternatives and diagnosis, the responsibility falls on the family and physician or the courts.

What has been missing is a knowledge of the patient's specific wishes, most important of which is his choice of surrogate or guardian (called "committee" in New York State).

A legal mechanism and instrument executed in the same manner as a last will, validating that, while of sound mind and of any age, the individual chooses his guardian, addressing the painful although unlikely possibility of forthcoming incompetence was described in 1973 and 1975.[11,12] It thus allows the individual, if he should become demented and with possibly many years of remaining life, an opportunity to "control" some of the events in his life, even during the period of senile dementia. We have called this instrument the "Penultimate Will." * It declares and specifies not only the individual's choice of guardian but also his wishes as to matters such as: (1) choice of physician, (2) choice of attorney, (3) place of residence, (4) manner of handling available funds, and (5) other matters. Following is an outline of the Penultimate Will:

> I, Richard P. Goodmind, residing at 700 East 72nd Street, City, County and State of New York, being upwards of 18 years of age and of sound mind, pursuant to §78.05 of the Mental Hygiene Law of the State of New York, or any similar or successor statute, do hereby make, publish and declare this to be my Last Designation of Committee† hereby revoking all other designations of persons to act as the committee of my person and/or property heretofore made by me.
>
> 1. I hereby designate my brother, Philip R. Goodmind, who presently resides at 3200 Riverside Drive, New York, New York, as the person whom I desire to be appointed as the committee and both my person and property in the event that I shall be declared an incompetent pursuant to Article 78 of the State of New York, or any similar or successor statute. If, for any reason, my said brother should fail or cease to act as such committee, then, in such event, I designate my friend, Edward Buddy, now residing at 1200 Riverside Drive, New York, New York, as the person whom I desire to be appointed as the committee of my person and property, in the place and stead of my said brother.
>
> 2. I hereby request that my said committee and any court which will have to make decisions with respect to my person and property in the event of my incompetence consider my following wishes:
>
> (a) That Robert Doctor, M.D. be my physician whenever medical care or advice is needed.
>
> (b) That my present attorney, Joseph Lawyer, Esq., who is familiar with all of my legal matters, be retained as the attorney for my committee.
>
> (c) That if my wife, Susan Goodmind, agrees and my physical and mental condition permits, I prefer to reside in my present apartment and not in a hospital or nursing home; and I request my said committee to make whatever financial, nursing, and medical arrangements are necessary to accomplish this request.
>
> (d) That if at any time of my incompetence, my said wife is deceased, I request that all of my assets be expended in keeping me as comfortable as possible during the remainder of my life and that no consideration be given to attempts to preserve my assets for my heirs.**

IN WITNESS WHEREOF, I have unto this, my Last Designation of Committee, set my hand and seal this 15th day of May, in the year Nineteen Hundred and Seventy-Four.

________________________(L.S.)
RICHARD P. GOODMIND

SIGNED, SEALED, PUBLISHED AND DECLARED by Richard P. Goodmind as and for his Last Designation of Committee, in the presence of us and each of us, who at his request and in his presence of each other have hereunto subscribed our names as witnesses the day and year last above written; this clause having first been read to us and Richard P. Goodmind aloud and we having noted and hereby certifying that the matters herein described took place in fact and in the order stated. This Last Designation of Committee consists of three sheets (including this sheet), each of which bears the signature of Richard P. Goodmind.

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*A new legal instrument akin to the last will, and different from the living will, allowing one to choose one's own guardian and to state one's wishes in the case of becoming incompetent.[11,12]

† "Committee is the phrase used in New York State for "guardian."

** Neither the requests contained in paragraph "2" nor indeed any requests other than that for the designation of the desired committee have any force of law. However, it would be most persuasive on any court to know the desires of the incompetent in matters on which the court might have to decide.

_______________Residing at _______________
____
_______________Residing at _______________
____

§78.05 of the Mental Hygiene Law provides as follows:

> Designation of Person to act as committee in case of future incompetence
>
> (a) Every person of the age of eighteen years or upwards and of sound mind may designate in writing a person or persons whom he desires to be appointed as the committee of his person, or as the committee of his property, or both, in the event that he shall be declared incompetent pursuant to this article.
>
> (b) Such designation shall be executed and attested in the same manner in which a will shall be executed and attested, revoked, altered, or cancelled.
>
> (c) The person or persons designated to act in the future as committee shall be disqualified from serving as a witness.
>
> (d) If the court finds that the appointment of the person or persons so designated would serve the best interests and welfare of the incompetent, it shall appoint such person or persons as committee, in accordance with the designation.

The designation of the guardian has the force of law in New York State, under Mental Hygiene Law §78.05. However, all the other designations in paragraph 2 of the preceding outline (designation of physician, attorney, place of residence, use of assets), although not having the force of law, if thus known to the court, would be most persuasive on the court in matters that the court might have to decide. California, too, has a law that provides an opportunity for an individual to draw up an instrument in the manner of the Penultimate Will.

Recently this mechanism has been increasingly emphasized[13,14] and it has been pointed out that Michigan is considering such a statute.[13]

The Penultimate Will is a very different approach compared with the so-called "Living Will." [13] The Living Will has focused on the issue of the "right to die" if "an incurable disease or injury occurs and treatment would only prolong the phase of dying." The individual requests cessation of life-sustaining treatments such as discontinuing a respirator.[15,16] Such legally binding choice in advance, without knowledge of the specifics of the life-and-death situation, is open to grievous error and also may force the physician toward nontreatment in a case in which some uncertainty exists.[13]

The Penultimate Will, by designating the guardian, allows one to have some "control" and input into the situation, while maintaining flexibility. It also goes far beyond the life–death precipice, to the many years of remaining life of the demented individual and to matters such as style of life, use of funds, and place of residence.

In the author's opinion, it would be advisable for all persons in middle or late life to draw up a Penultimate Will, just as more and more people have faced the issue of drawing up a last will. With the improved life expectancy already accomplished, the Penultimate Will, not yet a well-known legal instrument, could become a potentially important means of continuing to influence one's own destiny.

Treatment refusal by patient

It is not often that a mentally clear patient refuses treatment outright, particularly a lifesaving treatment. Although some may believe that this refusal becomes more prevalent with age, it is indeed unusual in late life. The older person cherishes each day of life as much as or more than the younger individual. Yet there are instances when such refusal does occur. The courts have long established the competent individual's right to refuse treatment. The heated debate comes when the refusal is linked to life-preserving treatments such as insulin, digoxin, transfusion, surgery, or even so "simple" a matter as hospitalization. Physicians traditionally attempt to overcome these wishes of the patient and indeed seek out other approaches such as the possibility of a significant depression.

Case history. An 88-year old man living alone at home, prefectly alert and apparently sound of mind, experienced recurrent severe congestive heart failure and pulmonary edema, necessitating frequent hospitalizations. He received home care from our geriatric medical program and specifically from a young resident physician and the visiting nurse. Recently, during a heart failure and pulmonary edema episode, he refused to be hospitalized again. After prolonged discussion the resident accepted, with ambivalence, the patient's decision to begin a plan of treatment at home. The visiting nurse, feeling "unable to let him die needlessly," called an ambulance, and had the frail, mentally sound individual taken to the hospital where treatment was effective, or at least showing improvement and permitting a return home. The resident physician brought this matter to the attention of a health-care team with a view toward planning for the next episode of pulmonary edema.

Some medical students felt that the patient certainly had the right to choose nonhospitalization. One student had made a house call along with the resident and was quite convinced that the patient was making a valid decision. Some experienced clinicians wondered if the patient was seriously depressed or incompetent in judgment. The resident physician was very uncertain as to what the 'right" course of action is.

There are arguments for and against the legality and ethics of the patient's right to refuse crucial, lifesaving treatment and of the physician's participation in such nontreatment. The courts often tend toward the view that the individual has the right of self-determination, unless this individual is the parent of dependent minors. When the descision is made by clear-minded patients, the situation requires the matching of courage on the part of the physician or team.

Passive euthanasia

Uncommunicative, terminally ill, elderly patients frequently engender in the physician the conflict of discontinuing treatment and allowing natural events to occur. This is a fairly common, lonely, and soul-searching situation for the physician. The question experienced by the physician is: Do we relieve suffering by omitting treatments and allowing an earlier death? Or, do we shorten a life that wants to continue but cannot communicate this to us?

Here are poetic examples of two sides of this issue:

From the Notebook of Albert Camus, November 7, 1937,[17] character A.M.—an invalid—both legs amputated, paralyzed all down one side.

> They help me when I want to relieve myself. They wash me. I'm practically deaf, but I would never do a thing to cut short a life in which I believe so strongly. I would accept even worse, blindness, deprivation of all my senses, loss of power of speech and of any contact with the external world—as long as I would feel within this dark, burning flame which is me and alive. And I should still give thanks for having let me continue to burn with its flame.

From the Roman stoic philosopher, Seneca[18,19]:

> Few have lasted through extreme old age to death without impairment, and many have lain inert . . . . I shall not abandon old age, but if old age begins to shatter my mind, and to pull its various faculties to pieces, if it leaves me, not life but only the breath of life, then I shall rush out of a house that is crumbling and tottering.

For the physician, the decision to discontinue treatment is rarely felt as absolutely clear and correct. This is one of the heavy burdens of clinical medicine.

Responsibility exchange

Responsibility to our patients who enter nursing homes. When an older patient enters a nursing home, it is not unusual to have his medical care responsibility assumed and rendered by a physician other than his usual, primary physician. There is, in many of these shifts, an ethical issue relevant to the physician-patient relationship and to the potential diminution in the quality of care. For example, the change of physicians may lead to:

1. Inadequate transfer of information from one physician to another.
2. Breaking and restructuring the physician-patient relationship.
3. Loss of insight into clinical decision-making because of the absence of subjective "impressions" gained during previous care of the patient.

Such cessation of involvement is a departure for physicians in the United States, since we generally pride ourselves on being responsible for patient care in the community and in the hospital. Why not carry over this same involvement and responsibility in the nursing home?

The patient, physician, and the nursing home would certainly benefit from continued involvement of the patient's primary-care physician.

Nontreatment of fever in nursing home: modern-day setting for triage. A recent retrospective study of "nontreatment of fever in extended-care facilities" in Seattle, Washington, revealed that approximately 40 percent of patients with fevers were not treated.[20] The mortality rate accompanying those fevers was 59 percent for the nontreated group and 9 percent for those treated. The investigators concluded that physicians and nurses together reached intentional decisions not to treat in many of these patients, and perhaps subconscious decisions in others. This finding confirms an impression long held, that physicians often actually make nontreatment decisions in life-threatening illnesses in certain patients rather than prolong "life at any cost."

Clinical experience suggests that it would be the patients with irreversible and extensively damaged brains who are often selected for nontreatment. Thus, it is surprising that neither senile dementia nor stroke showed "an important relationship" to nontreatment of fever. On the other hand, nontreatment decisions were related to factors such as excess nursing care needs and aloneness (patients without spouse). These factors, although apparently humane, run the risk of "ageism" linked to "nursing home-ism," a prejudice favoring nontreatment because the patient is old, alone, requires excess nursing care, and resides in a nursing home.

Informed consent

Clinical and research situations reveal a long-held legal doctrine that each person has the right to determine when and if invasion of one's body will occur. This concept is highlighted in the doctrine of informed consent, which states "that no medical procedure may be performed without a patient's consent, obtained after explanation of the nature of the treatment, substantial risks and alternative therapies." [21,22] The exception to this is the emergency situation.

The doctrine received great notoriety in the early part of this century in relation to religious groups, such as Jehovah's Witnesses and their refusal of blood transfusions for their adult and young children. The courts upheld the religious rights on nontreatment of the individual adult, but not when the adult was making such decisions for a minor.

Not only clinical therapies but also research efforts require the informed-consent doctrine to be carefully followed. Research efforts are further scrutinized by institutional review committees to carry out governmental guidelines. The balance between protection of the individual and improvement of the health of society through research is tenuous and must be constantly reevaluated.[23]

This issue is well highlighted with elderly patients, both those in the community and those in hospitals and nursing homes. For the majority of the elderly who live in the community the issue of informed consent is not appreciably different from that of younger adults. The comprehension of the program, the purpose of tests and treatments, and the potential yield may be clearly understood if the physician takes the time and clarifies all issues. At any age it may be difficult to obtain a truly informed consent. However, with the frail elderly and with the 4 to 8 percent of the elderly who are demented, there are more likely to be cognitive problems comprising a truly informed consent. How, then, are we to proceed with certain diagnostic and therapeutic steps, let alone with research?

With regard to research, the problem is complex. Institutional committees may be reluctant to approve research projects with the elderly that they would tend to permit with younger adults. Although appearing quite humane at first glance, this policy may be a serious threat to progress in improving the later years.

The present-day approach to these issues has been government rules and human subjects' protection committees, which will not be as important, finally, as will be the responsibility assumed by each physician or researcher in the matter of obtaining truly informed consent from the patient and/or the surrogate.

Physicians' responsibility in patient's choice of mode of therapy and relationship of decision to patient's willingness to take risks

In choosing treatments we may interpret the textbook version of patients as ageless and presume that what is appropriate for mid-life is appropriate for later life. Even if we acknowledge the biologic differences accompanying age, we may overlook the attitudinal changes that often accompany age. The attitude of 60-year-old patients toward a choice of therapy may be quite different from that of a 45-year-old person. One recent study focused on presenting choices of radiation or surgery to patients of various ages who had cancer of the lung. Patients were informed about immediate and long-term risks and benefits. The long-term survival data presented to them favored the surgical approach.[24] Yet, the older patients chose radiation therapy. This may relate to the lesser immediate risk of death or pain from radiation therapy compared with operative death and/or pain, or to other, not yet obvious, age-related factors. Thus, the physician's approach to helping the patients choose between alternatives should be modified by awareness of the apparent preference for less risk taking or discomfort rather than for longer life among older patients.

Excessive surgery

There has long been a controversy about possible excessive surgery performed in the United States, compared with Great Britain.[25,26]

Certain surgical procedures are becoming so frequent in the elderly that they merit discussion, as, for example, cataract extraction[27] and prostatectomy. The clinical and ethical issue is that with an aging population, one could present a case for operating on almost all older persons since so many have cataracts or prostatic enlargement with some urinary symptoms. Exact criteria are difficult to establish since so much involves the interpretation of function. We must avoid excessive surgery, using the soundest and strictest clinical and ethical criteria in deciding on treatment.

Communicating about serious medical problems

For all age groups of patients there is debate about "truth-telling" by the physician when it comes to issues such as cancer and other fatal illnesses.[28] To not inform the patient adequately can lead to a dependence and an inability to choose and plan properly; this could establish a paternalistic relationship of patient to physician.

Some think that elderly persons do "not want to know" or "can't understand." In the absence of senile dementia, most older persons are perfectly capable of understanding the nature of the problem. Our own experience suggests that older persons, indeed, deal better with stressful life events and news of catastrophic illness than do younger persons.

This is not to say that "all" older patients should be told everything. Often, such information is best withheld from the patient. There is, as always, the need for individualized judgment and for the art of medicine.

Comment

The demographic changes, the economic difficulties, the medical-technical advances, and the involvement of society in health-care decisions and issues have all combined to increasingly emphasize the need for consideration of the ethics of health care for those of all ages[29,30] and for the particular issues affecting the elderly. The circumstances relevant to the elderly may prove the greatest test of our society's ethical values, judgments, and strengths. The issue, in the final analysis, is the value of human life.

Summary

The physician rendering care to the elderly is frequently faced with ethical issues that interface with clinical decision making. The prevalence of these issues has been enhanced by the demographic changes and therapeutic advances of the past decades and the recent economic pressures toward "cost effectiveness." There is already some tendency to use age as a criterion in triage situations. While being properly budget-minded, the physician must not relinquish his role as "healer" to his patient.

The ethical-clinical interface issues in care of the elderly and some suggested approaches include: triage by age; medical or surgical decisions; use of the "Penultimate Will"; right to refuse treatment; passive euthanasia; responsibility to our patients who enter a nursing home; informed consent—patient's choice of therapy and its relationship to age; physician responsibility; excessive surgery; and communicating with older patients about serious problems.

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History of Mercury and Mercurialism

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Man has known mercury since antiquity; it was used in prehistoric times in the form of cinnabar (mercury sulfide) to color drawings on cave walls.[1] It also was claimed to have been used as a remedy in the twenty-seventh century B.C. by the Chinese emperor Hoang-Ty.[2] It has been repeated in the literature that one of the most ancient specimens of mercury was found by Schliemann toward the end of the last century in an Egyptian tomb of the eighteenth or nineteenth dynasty at Kurna, and probably dated from the sixteenth or fifteenth century B.C.[3–5] However, several authors have cast doubt on the authenticity of these allegations.[6]

Later on, the Greeks became acquainted with mercury, as did the Romans, but they considered it a poison more than a drug. During the hegemony of Rome, the Almadén mercury mines in Spain were already active. In the first century A.D., Pliny[7] mentioned these mines in his *Naturalis Historiae Libri.* He also stated that mercury was used in copper gilding and for sacred purposes. Mercury, according to him, was a poison, and was, therefore, too dangerous to be introduced in medicinal preparations.[7]

As early as 500 B.C., India was using mercury as a drug. From there, its medical use was transmitted to Persia and perhaps to China. Under the opposing influences of Indo-Persians and Greeks, Arabian physicians were really the first ones to set their hands to the experimental study of mercury as a drug.[8] During the halcyon days of Arabian medical splendor, Abû Bakr Muhammad ibn Zakariâ, called Rhazes (865 to 925), introduced mercurial ointment in the *materia medica.*[9] Several scholars, particularly Constantinus Africanus, translated Arabian medical works into Latin. Furthermore, relations between Europe and Arabic countries intensified during the twelfth and thirteenth centuries, either through Moorish wars, or repeated crusades. All this favored the introduction of mercurial therapy in Europe.[8]

Mercury in middle ages and renaissance

In 1180, Ruggiero Frugardi of Palermo, as well as Friar Theodoric of Lucca some time later, recommended mercurial salves for chronic dermal and parasitic infections.[10,11] Salivation was already noticed as a side-effect of treatment. In the course of the thirteenth century, the practice of mercurial inunctions spread throughout Europe, but it was really during the fifteenth and sixteenth centuries that mercury was being widely prescribed in Europe. In 1473, a detailed description of mercurialism as an occupational disease in goldsmiths was given by Ulrich Ellenbog.[12] In 1556, the first treatise on miners' diseases, *De Re Metallica*, was published by Georgius Agricola.[13]

The period of transition from the Middle Ages to the Renaissance witnessed the outburst of massive epidemics in Europe. In Italy, Jacopo Berengario da Carpi (1470 to 1530) was famous for introducing mercury ointments in the treatment of syphilis.[9] At the end of the fifteenth century, authors, such as Shellig,[14] Grunpeck,[15] Leonicenus,[16] Torella,[17] Widman,[18] Gilinus,[19,20] and Steber,[21] all incorporated mercury in the therapy of syphilis. Later on, Brocardi,[22] de Vigo,[23] Benivenius,[24] and Benedictus[25] also recommended the introduction of quicksilver in the preparation of ointments for the treatment of syphilis. De Vigo[26] was convinced that soreness of the gums was an integral part of the therapeutic effect and was necessary to abate peccant humors. The patient was placed on a special diet and was given cathartics and digestives. Ulceration of the mouth, thought to be caused by the sialogogic action of mercury, was treated with emollient decoctions.

The benefits of the mercurial "cure" are illustrated by what happened to Benvenuto Cellini (1500 to 1571),[27] the famous Florentine sculptor and goldsmith; he was a victim of *lues venereae.*[28] An attempt on his life was made by some malevolent people who dropped some sublimate of mercury in the dressing at a dinner and served it to Cellini. After suffering temporarily from gastrointestinal pain, he suddenly became healthier and felt free from the disease he had suffered before this acute intoxi-

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cation. According to his physician, sublimate was the best remedy he could use for his disease.[27-30] However, Jean Fernel, a convinced "antimercurialist" also known as the "modern Galen," described clinical features of industrial mercury poisoning,[12] strongly discouraged its internal use in therapy, and recommended guaiac as the alexiteric of choice for venereal diseases.[31]

In the second part of the sixteenth century, mercury was still the drug of choice in the treatment of syphilis.[32] Thierry de Héry (1552), in his treatise *La Méthode Curatoire de la Maladie Vénérienne*, recommended the use of either guaiac taken internally or mercury administered by fumigation or inunction. At the same time in Europe, under the quick ascendency of alchemists, there was an increasing interest in the elusive properties of this intriguing cold and liquid metal. In his treatise *De Metallis et Fossilibus*, Gabriele Fallopius described mercury poisoning in mercury mines.[34] Pietro Andrea Mattioli of Siena (1500 to 1577) observed mercury poisoning among miners at Idrija in Carnolia, and Pieter van Foreest of Delft (1522 to 1597) made the same observations.[35] Daniel Sennert (1572 to 1637) described three possible routes of entry of mercury in the body: it can be absorbed through the gastrointestinal tract, and/or the skin, and by inhalation.[8] Hitherto almost no attempts had been made to shed some light on the mode of action of this fascinating chemical.

Paracelsus[36] classified mercury as one of the three natural elements of blood, but he was aware of its possible toxic effects. According to him, mercury is at the origin of illness when it becomes "agitated" in the body by external heat. Three reactions are possible: distillation, sublimation, or precipitation, and from these processes evolve different symptoms. Paracelsus dedicated a whole monograph to miners' diseases due to mercury. In this book, he described several symptoms of intoxication, such as tremor ("shivering without feeling cold"), gastrointestinal disturbances, oral infections, and blackening of teeth. A chapter was also dedicated to treatment, which consisted of two phases: the first one had the objective to "mobilize" mercury in the body, that is, to make it ready to be excreted, and this was done by immersing the patient in a hot bath with herbs of all kinds. The second phase consisted of applying corrosive plaster to make openings through which mercury could flow out.[37] He made mercury part of the pharmacopeia in Europe and reinforced its prescription in the treatment of syphilis.[38]

Mercury as occupational hazard

In the seventeenth century, medical uses of mercury fell from favor. In 1665, Walter Pope[39] visited mercury mines of Friuli and reported trembling, paralysis, malnutrition, and premature death among miners.[40] The same year, probably the first standard for occupational health was introduced in the mercury mines at Idrija, where the workday was reduced from 14 to 6 hours.[1] At the turn of the century, Bernardino Ramazzini,[41] the uncontested father of industrial medicine, published his *De Morbis Artificum* (1713), in which he pointed out mercury and other metals as an occupational hazard in miners, gilders, chemists, potters, tinsmiths, glass workers, mirror makers, painters, and medical personnel. In a chapter on chemists, he recounted that a citizen of Finale vigorously attacked a chemical factory where mercury chloride was manufactured, and brought a lawsuit against the owner, accusing him of polluting the environment and therefore contributing to an increase in the death rates in the neighborhood. He did not win his cause, but his account of mercury pollution was certainly one of the first public actions brought about by a concern for the adverse effects of air pollution on health.[41] Etmueller (1644 to 1683) in his *Mineralogia* identifies mercury as a neurotoxicant. In 1685, mercury nitrate is introduced in the preparation of fur felt in France.[42]

Later on, Jean Astruc of Montpellier (1684 to 1766) revived the use of mercury in the treatment of syphilis.[8] He knew about some deleterious side-effects of this remedy, but attributed them to the "evil humors" in blood. To prevent poisoning, these humors had to be removed from the body, and this was conveniently done by a sequence of pretreatments, such as bloodletting, hot bath, laxation, and starvation. After these precautionary measures had been taken as many times as necessary, the exhausted patient was ready to go through the inuction cure and was expected to give daily up to 2 or 3 L. of saliva for 15 to 25 days.[8] Mercury was thought to cure syphilis through profuse sialorrhea. This mechanism of action had already been proposed by Thomas Sydenham.[43] Although Jean Astruc noted some adverse effects of mercury, he considered them not as signs of intoxication, but as inherent manifestations of the therapeutic effect.

In 1719, Bernard de Jussieu[44] addressed a memoir to the Academy of Sciences in which he described the process of mercury extraction as well as the working conditions in Almadén mines. Although he mentioned tremor, which was due, according to him, to the "tristes effets du séjour du sang dans des vaisseaux du cerveau devenus variqueux par le poids de quelques particules mercurielles" (page 360), he attributed this ailment mainly to the workers' slovenliness. He tended to minimize the noxious effects of mercury, claiming that people living on the verge of the mine were not less healthy than those living far away. For him, "la malignité arsenicale prétendue du Mercure" was ascribable more to myth and prejudice than to reality.[44] It is interesting to note here that, in case of overt signs of intoxication, physicians in Almadén used to have recourse not to laxatives or blood-lettings, but to withdrawal from the source of exposure and, also, for an unclear rationale, to the use of crayfish eyes, ivory, and burnt hartshorns. In 1761, Giovanni Scopoli described mercury poisoning in miners around Alto Isonzo in Italy.[34]

Quicksilver controversy

The eighteenth century soon became the scene of acrid and spirited controversies about mercurial therapy, especially in England.[45] In 1732, Dover,[46] surnamed at his time the "Quicksilver Doctor," published *The Ancient Physician's Legacy to his Country*, in which he lauded mercury to the skies and recommended it for almost any disease. As a matter of fact, it became fashionable in London at these times to take some mercury every day for several weeks, since it was considered beneficial for health. In 1733, *A Short Review of the Quicksilver Controversy* came off the press.[47] In this review, the anonymous author extolled the "great good Remedy, Quicksilver" (page 10), and was followed in the same vein by Belloste[48] and other anonymous contemporaries such as the authors of *Encomium Argenti Vivi*[49] (most likely written by Dover), *An Antidote: or, some remarks upon a Treatise on Mercury*,[50] and *Substantial reasons offer'd by way of argument to prove that crude mercury never did, nor can hurt any one taking it* (1733).[2] Against this abuse of mercury, the leading contestant was certainly Turner.[51] He dismissed Dover's book as absurd and intended for the ignorant, and he replied to it in his *Ancient Physician's Legacy Impartially Survey'd.*[51] In this direction, he was himself followed by Bradley[52] and the anonymous authors of *On the use and abuse of mercury*, *A treatise on mercury with some remarks on the Ancient Physician's Legacy* (1733), and *Remarks upon a late scurilous pamphlet entitled A Review of the Quicksilver Controversy* (1737). Whichever position was taken, mercury still remained an important topic of interest among eighteenth-century practitioners.

The European medical practice of prescribing mercury spread to the United States, where it found rabid enemies (Cadwallader, Macleane), as well as convinced supporters (Douglas, Thompson, Ogden, Holyoke, Rush, Bayley, and Bard). However, at about that time, mercury was generally deemed a valuable article of the *materia medica*,[53] and an entire volume of *Apparatus Medicaminum* written by Gmelin[54] was entirely dedicated to mercury and its medicinal preparations. In Italy, Domenico Cirillo (1739–1799) in his *Trattato sulle malattie veneree* emphasized all the advantages of mercurial therapy.[6] At the end of the century, John Pearson of London (1758 to 1826) was one of the first to report mercurial tremor as part of a syndrome for which he proposed the term "mercurial erethism." [8] Nonetheless, he favored the medical use of mercury, considering it to be a good and safe remedy. His views were not shared by Swédiaur[55] who attributed to mercury the ability to convert venereal ulcers into mercurial ulcers, and of inducing cachexia and hebetude.

First outbreaks

The nineteenth century opened with several tragic accidents and became the setting of a tremendous number of cases of mercury intoxication. In 1804, a fire in a mercury mine in Austria was at the origin of a massive poisoning from which 900 people developed tremor.[38] In April, 1810, a curious accident occurred aboard the *H.M.S Triumph.* A violent storm played havoc with several merchantmen and battleships along the Spanish coast. The *Triumph* went to the rescue of the *Maria Primera*, a wrecked Portuguese battleship, and salvaged a large cargo of metallic mercury. The drenched leather bags containing mercury quickly rotted and their contents, estimated at several tons, spread through the lower deck of the *Triumph*. Within three weeks of the accident, more and more cases of mercury poisoning as manifested by ptyalism, mouth ulceration, and erethism became evident, and up to about 200 men were showing symptoms.[56,57] Therapeutically, sulfur was administered orally, but did not seem to have any beneficial effect. It was thought that the best way to cure this intoxication was to remove the patient from the contaminated area and to employ frequent detersive gargles.[58] Other antidotes were recommended, such as alkaline salts and albumin.[59]

In 1807, an anonymous play was published entitled *The Mercuriad or Spanish practice of Physic. A tragi-comedy. Being a burlesque on the extensive use, and an exposition of the malignant effects of Mercury introduced into the modern practice of Physic. By a Friend of Mankind.*" [60] It was a very strong defense of rational practice and a brisk satire of "mercurialists."

The outset of the nineteenth century witnessed the beginning of experimentation with mercury. Gaspard[61] exposed fly eggs to mercury vapor in adequate conditions of temperature and humidity. In the experimental group, there was no hatching; however, in the control group, hundreds of eggs hatched. This is one of the first reports on the fetotoxic effects of mercury. At that time also, one wondered about the fate of mercury in the organism. The authors of the *Dictionnaire abrégé des sciences médicales*[62] stated that, "Y a-t-il absorption du mercure, passage des molécules de ce métal dans la masse des humeurs? on l'a dit; et Zeller a même prêtendu qu'il était parvenu à retirer du mercure, au moyen de la distillation, du sang et de la bile des animaux que les frictions mercurielles avaient fait périr. Mais le fait n'est pas encore bien constant, disons même plus, il n'est pas probable," and continued by mentioning "une absorption hypothétique, qui d'ailleurs n'expliquerait rien, et multiplierait au contraire les difficultés." The absorption of mercury into blood was also denied by Adelon et al.[63] However, Colson,[64] against the opinion of several of his contemporaries, truly believed in the absorption of mercury into the blood and gave some evidence for his theory, agreeing in this respect with the views of Mathias.[65] He also noticed the diuretic action of mercury and was interested in important issues such as the routes of excretion and the pharmacokinetic properties of mercury. He preferred to base all his hypotheses on experimental facts rather than to rely on authors whose verbose fertility only equalled their extravagant abstractions. Colson[66] also described mercurial tremor, which was not unanimously agreed on by other physicians, especially by those who took for granted the innocuousness of this metal in medicinal preparations. For him, the treatment of mercury poisoning essentially consisted of withdrawal of the patient from the cause of the affection according to the Latin saying "*sublata causa tollitur effectus.*"

Revival of interest in medical use of mercury

During the nineteenth century, there was a drastic increase in the medical use of mercury. One of the reasons was the belief that mercury cured venereal disease, which no other medication had been able to cure. The conclusion some physicians reached was that "whatever medicine will cure one disease, which no other medicine can cure, will cure all diseases which no other medicine will cure." [67] It was for that reason that mercury was prescribed in a wide variety of illnesses (besides syphilis, where it has been the drug of choice until recently), such as testicular diseases,[68,69] hepatic disorders,[70] plague,[71] pleuritis,[72] purpura haemorrhagica,[73] peritoneal inflammation,[74] erysipelas,[75] cholera,[76] chronic diarrhea,[77] amenorrhea,[78] eczema,[79] hydrophobia,[80] chronic diseases of the brain,[81] typhoid fever,[82,83] amaurosis,[84] and inflammation.[85] Mérat and Delens[86] reported in the articles on "Mercure" and "Mercuriaux" of their *Dictionnaire Universel de Matière Médicale et de Thérapeutique Générale* that mercury was prescribed under several preparations, like solutions, lotions, eyewashes, baths, injections, gargles, ointments, powders, pills, plasters, fumigations, and trochisci. According to them, the principal illnesses in which mercury is mainly indicated are fevers, phlegmasias, gout, rheumatism, chronic diseases of the skin, syphilis, illnesses due to parasites, hydrops, scrofulas, and cholera.

However, some bitter controversies were revived about mercurial therapy. Although some advocated its use almost without any restrictions,[70] others restricted it to mercurial fumigation in an attempt to cure syphilis.[87–90] Some rejected it more or less vigorously, giving querulous details of its baneful effects,[91] or wondering what peculiar efficacy mercury had above all the other medicines.[59] That mercury represented an occupational hazard was also noted by Colson[64] who reported several cases of mercury poisoning in hospital staff treating patients attacked by venereal diseases. The cause of that affliction was attributed mainly to the presence of mercury in the air.

Mercurial diuresis had occasionally been noticed since the sixteenth century, but it was really during the nineteenth century that clinical practice incorporated mercury in the list of diuretic agents.[92–94] Twenty years after the turn of this century, a new organic mercurial, merbaphen (Novasurol) administered as an antisyphilitic drug induced diuresis.[95–97] This new diuretic was far more potent than were other available agents, and it began to be widely and indiscriminately prescribed. Organomercurials retained their place in the modern pharmacopoeia[98] even after the occurrence of several fatalities and after the introduction of thiazide diuretics.[99–101]

Although several authors asserted that Koch[109] was the first to furnish experimental evidence for the antiseptic properties of mercury in 1881,[102–104] the full merit of it really rests with French scientists who not only were the first to discover the germicidal action of mercurials, but also were the first to introduce them in clinical practice. In 1872, Petit[105] reported that mercury bichloride inhibited barm fermentation. In a short communication presented at the Society of Biology in 1874, Davaine[106] mentioned the antiseptic effects of sublimate. In 1880, the first clinical trials on mercurials as antiseptics were promoted by Tarnier[107] who relied on Davaine's[106] experiments and applied them during labor. In 1882, he was routinely using corrosive sublimate in all the women at the maternity hospital.[108] Koch[109] experimented on the effects of mercury bichloride on anthrax spores and declared it was distinctly superior to other antiseptics. Outside France, surgeons tried mercury in their clinical practice and achieved results that were no less remarkable. However, it was not long before dissonant notes disturbed the concert of praise. In 1884, Stadfeldt[110] mentioned possible adverse side-effects and reported on a case of death following introduction of mercury bichloride in obstetric therapeutics. This report was to be followed by others emphasizing the toxicity of this compound.[111–113] However, mercurial antiseptics can still be obtained over the counter today and are still currently anchored in the pharmacopeia.

Industrial uses of mercury

With the ever-growing industrialization during the nineteenth and twentieth centuries, several cases of mercury poisoning were reported in munition factories,[114] in production of carbon brushes,[115] in fingerprint photography,[116,117] in calibration of scientific glassware,[118,119] in the manufacture of mirrors,[120] felt hats,[121–128] antifouling plastic paint,[129] tungsten-molybdenum rod and wire,[130] and dry batteries.[131] The nineteenth century saw the chemical industry make rapid strides. Organomercurial compounds were being synthesized[132–135] and, as early as 1865, the first fatalities resulting from mercury methide (dimethylmercury) exposure were reported in England[136–139]; this did not prevent similar accidents from happening several decades later.[140] The patients, who were involved in the synthesis of this chemical, complained of impairment of sight, numbness of the hands, deafness, great weakness, giddiness, and impaired sensations in hands and feet.

Twentieth century or imminence of human tragedies

In the twentieth century there had been an increasing number of severe intoxications of diverse origins which, in several cases, took on the proportions of dramatic outbreaks. Exposure to organic mercury compounds is much more dangerous than to inorganic mercurials, and has led to numerous fatalities. In England, Hunter[141,142] described four cases of poisoning due to inhalation of methylmercury; this compound has a very potent fungicidal activity and was used in the preparation of seed dressings. These articles give a classic account of signs and symptoms associated with methylmercury poisoning, such as paresthesias, constriction of the visual fields, ataxia, dysarthria, and styptic metallic taste in the mouth. Soon, other isolated cases of poisoning occurred following industrial exposure to various alkylmercurials.[143–147]

In May, 1956, Dr. Hosokawa reported on four cases of an unknown disease in Minamata, Japan.[148] In August, a study group on Minamata disease was formed. Three months later, a warning was issued against eating seafood from Minamata Bay. Although heavy metals were soon suspected as the causative agent, it was only in July, 1959, that mercury was given full consideration. In June, 1962, Irukayama et al.[149] isolated methylmercury chloride from the effluents of the Chisso's factory and, in 1963, the study group announced that methylmercury was the causative agent of this strange disease. Mercury was used as a catalyst in the acetaldehyde production at the Chisso's factory. It was found in substantial amounts in the waste waters that were discharged into the Bay. Fish and seafood became contaminated and especially affected fishermen and their families.[148–154] In January, 1965, one case of methylmercury poisoning was discovered in the Niigata Prefecture. Soon, from the mouth of the Agano river to the upper reaches, hundreds of cases were disclosed.[155,156]

Other countries were also affected, although by an entirely different route. In Iraq, the Ministry of Agriculture introduced Granosan M (ethylmercury p-toluene sulfonanilide) as a fungicide for seed dressing in 1955. Farmers were warned not to eat the treated wheat, but some washed and ate it regardless. In 1956, several cases of mercury poisoning occurred in northern Iraq.[157] In 1960, another outbreak struck the central part of Iraq and an estimated 1,000 patients suffering from mercury poisoning were admitted to hospitals there. Several hundred Iraqis died.[158,159] Between December, 1971, and March, 1972, an even more serious outbreak caused by the ingestion of methylmercury-treated seed struck thousands of people[160,161]; several hundred persons died during the epidemic. A similar outbreak started in 1961 in Pakistan[162]; this was caused by consumption of seed wheat treated with agrosan GN, a mixture of phenylmercury acetate and ethylmercury chloride. In the summer of 1965, around Quetzaltenango in Guatemala, an outbreak of a disease resembling encephalitis involved several Indian families cultivating wheat and corn. Panogen 15 (methylmercury dicyandiamide) was used to dress seed wheat and soon was identified as the etiologic agent.[163,164] In southern Ghana, maize intended for sowing and treated with ethylmercuric chloride was eaten and originated another outbreak.[165] In 1969, a family of Alamogordo (New Mexico) ate the meat of hogs inadvertently fed grain previously treated with a methylmercury fungicide[166,167]; several members of the family were poisoned.

In 1968, an expert group was appointed in Sweden to make an epidemiologic evaluation of the risks caused by the presence of mercury in fish intended for human consumption. No overt case of intoxication was recorded; however, blood mercury levels in some subjects examined were higher than those present at the onset of symptoms in Japan.[168,169]

More recently, in Canada, a survey revealed disquietingly high levels of methylmercury in Indians of White Dog and Grassy Narrows reserves in northwestern Ontario[170–174] and, some time later, around Matagami in northwestern Quebec.[175,176]

Comment

Although geologic sources partially account for the presence of mercury in the ecosystem, human ignorance and industrial carelessness have been at the origin of most of the accidents and outbreaks of mercury poisoning. May the yet too numerous victims of mercury help remove the veil of secrecy surrounding the outbreaks and prevent other large-scale chemical pollutions in the future.

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Obituaries

Charles Thomas Azzara, M.D., of Floral Park, died on September 19 at the age of 75. Dr. Azzara graduated in 1933 from Georgetown University School of Medicine. He was a general practitioner at Mercy Hospital, Rockville Centre. Dr. Azzara was a member of the Nassau County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Earl A. Brandl, M.D., of Lockport, died on August 27 at the age of 52. Dr. Brandl graduated in 1959 from the University of Buffalo School of Medicine. He was a member of the American Occupational Medical Association, the Niagara County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Smith A. Combes, M.D., of Hempstead, died on September 28 at the age of 89. Dr. Combes graduated in 1915 from University and Bellevue Hospital Medical College. He was a member of the Nassau County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Elmer Leon DuBois, M.D., of Newark, died on August 11 at the age of 76. Dr. DuBois graduated in 1929 from the University of Rochester School of Medicine. He was an obstetrician at Newark-Wayne Community Hospital, Inc., as well as an anesthesiologist there. Dr. DuBois was a member of the American Academy of Family Physicians, the American Society of Anesthesiologists, Inc., the Wayne County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Francis James Facciolo, M.D., of Tarrytown, died on August 24 at the age of 57. Dr. Facciolo graduated in 1948 from New York University Medical School. He was a senior obstetrician and gynecologist at Phelps Memorial Hospital Association. Dr. Facciolo was a Diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Obstetricians and Gynecologists, and a member of the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Arthur Feder, M.D., of Bay Harbor Island, Florida, formerly of Jamaica, died on September 5 at the age of 81. Dr. Feder graduated in 1924 from New York Homeopathic Medical College and Flower Hospital. Retired, he was a member of the Medical Society of the County of Queens, the Medical Society of the State of New York, and the American Medical Association.

Leonard Horn, M.D., of Rochester, died on September 9 at the age of 73. Dr. Horn graduated in 1932 from Jefferson Medical College of Philadelphia. He was a consultant in medicine at The Genesee Hospital, a senior associate, emeritus, in medicine at Strong Memorial Hospital, a medical specialist at Rochester Psychiatric Center, and a consultant in medicine at Rochester General Hospital. Dr. Horn was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Allergists, a Fellow of the American College of Physicians, and a member of the American Rheumatism Association, the American Academy of Allergy, the Rochester Academy of Medicine, the Monroe County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Max Kliger, M.D., of The Bronx, died on September 27 at the age of 87. Dr. Kliger graduated in 1926 from the Medical College of Virginia. He was a Fellow of the International College of Surgeons and a member of the Bronx County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Thomas George Lamberti, M.D., of Fulton, died on January 28 at the age of 70. Dr. Lamberti graduated in 1945 from the University of Buffalo School of Medicine. He was chief of anesthesiology and inhalation therapy, as well as a member of the medical staff, at the Albert Lindley Lee Memorial Hospital. Dr. Lamberti was a Fellow of the American College of Anesthesiologists and a member of the American Society of Anesthesiologists, Inc., the New York State Society of Anesthesiologists, the Oswego County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Edwin F. Lathbury, M.D., of Buffalo, died on August 13 at the age of 70. Dr. Lathbury graduated in 1936 from the University of Buffalo School of Medicine. He was a Diplomate of the American Board of Otolaryngology and a member of the American Academy of Ophthalmology and Otolaryngology, the Erie County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

James E. McCormack, M.D., of New York City, died on September 22 at the age of 70. Dr. McCormack graduated in 1939 from New York University College of Medicine. He was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, and a member of the Aerospace Medical Association, the New York Academy of Medicine, the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Werner Nathan, M.D., of North Salem, died on September 7 in his 70th year. Dr. Nathan received his medical degree from the University of Pisa in 1936. He was an assistant psychiatrist at New York Hospital-Cornell Medical Center, Westchester Division. Dr. Nathan was a member of the American Psychiatric Association, the American Psychoanalytic Association, the Westchester Academy of Medicine, the Westchester County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

George Nemecek, M.D., of Mineola, died on September 29 at the age of 63. Dr. Nemecek graduated in 1942 from New York Homeopathic Medical School and Flower Hospital. He was an assistant physician in internal medicine at Nassau Hospital. Dr. Nemecek was a member of the Nassau County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Leo Patrick O'Donnell, M.D., of Pawling, died on August 8 at the age of 84. Dr. O'Donnell graduated in 1925 from the Medical College of the State of South Carolina. He was a Diplomate of the American Board of Psychiatry and Neurology (Psychiatry) and a member of the American Psychiatric Association, the Dutchess County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Joel Edward Rothermel, M.D., of New York City, died on October 5 at the age of 41. Dr. Rothermel graduated in 1967 from the University of North Carolina School of Medicine. He was an assistant in orthopedic surgery at The Roosevelt Hospital. Dr. Rothermel was a Diplomate of the American Board of Orthopedic Surgery and a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Robert Harold Rowner, M.D., of Syracuse, died on September 9 at the age of 73. Dr. Rowner graduated in 1933 from Syracuse University College of Medicine. He was a senior obstetrician and gynecologist at Community-General Hospital of Greater Syracuse. Dr. Rowner was a Fellow of the American College of Obstetricians and Gynecologists and a member of the Syracuse Academy of Medicine, the Onondaga County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Rudolf Wittmann, M.D., of The Bronx, died on August 11 at the age of 80. Dr. Wittmann received his medical degree from the University of Vienna in 1926. He was a member of the New York County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Harold Himmelsbach Saxton, M.D., of Mayville, died on March 24 at the age of 76. Dr. Saxton graduated in 1930 from the University of Buffalo School of Medicine. He was an associate member of the medical staff at Westfield Memorial Hospital. Dr. Saxton was a member of the Chautauqua County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Herbert Clare Soule, Jr., M.D., of Rochester, died on July 22 at the age of 87. Dr. Soule graduated in 1920 from Johns Hopkins University School of Medicine. He was an associate, emeritus, pediatrician at Strong Memorial Hospital. Dr. Soule was a member of the American Academy of Pediatrics, the Rochester Academy of Medicine, the Monroe County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Alvina Rich Lewis

We wish to note with deep regret the fact that Alvina Lewis died on October 22, 1981. Alvina began with the Journal under George Kosmak, M.D., in September, 1947, and she retired after a long, devoted, conscientious service in April of 1968 to Wellfleet, Massachusetts. She began her career at the Journal as a technical editor and retired as managing editor. She was also head of the workroom of the House of Delegates every year, no small effort indeed. She also edited the annual reports and the final formulation of resolutions and Minutes of the House of Delegates. She was really in charge of the makeup of the Journal over these many years. She helped improve the Journal and guided all of the editors, including myself, as well as supervising and organizing the Journal office staff. In no small measure the Journal still reflects her efforts.

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Month in Washington

Due mostly to the Reagan Administration's canny use of the five-year-old Congressional budget process, the important money decisions for all federal agencies were wrapped into one package last August—the Omnibus Budget Reconciliation Act. As a consequence, there is not much going on healthwise in Capitol Hill Chambers. "Quieter than it has been in more than 20 years when the Health, Education, and Welfare Secretary Arthur Flemming used to hold an intimate weekly news conference and be happy when more than a couple of reporters showed up," writes one veteran health observer.

* * *

The Administration is forging ahead with its plan to slash 12 percent from domestic federal programs despite mounting Congressional resistance.

A complicated budget battle is engulfing the Capitol with the latest wrinkle—a decision by President Reagan to defer some $1 billion in spending while Congress deliberates the issue of a new round of cuts.

At present all federal agencies are operating under a stopgap continuing resolution to keep them funded. Only 12 major appropriations bills to provide money for the current fiscal year that started October 1 has been adopted by Congress. The House has passed 10 bills; the Senate, two.

Most of the appropriations bills reflect the $30 billion of savings called for in the massive budget reconciliation measure approved by Congress last August.

But so far there's been no action by Congress on the President's recent proposal to pare another $13 billion from federal spending during the current fiscal year. This would involve an extra $1 billion taken from federal health program expenditures.

An indication of the difficulties facing the Administration came in the House vote on the HHS (Health and Human Services) Department appropriations bill when a move to send the bill back to committee to make further cuts as requested by the President was defeated 249 to 168.

The President's plan to defer spending by $1 billion from the initial period would temporarily reduce spending for 500 to 800 domestic programs below the stopgap rate set by Congress. Authority for such deferrals came from the 1974 Budget Act. House Speaker Thomas O'Neill charged the tactic is "a backdoor method to frustrate the law."

The next months promise to pose stern confrontations between Congress and the Administration on the spending issue which will dominate the domestic scene through the rest of the session. Presidential vetoes of over-the-mark appropriations bills already have been threatened.

* * *

The specific goals of consumer choice national health proposals of achieving greater cost-consciousness and individual responsibility in selection of insurance coverage and seeking health care "are meritorious and should be pursued," the AMA has told Congress.

The House Ways and Means Subcommittee on Health was told that "when considering legislation to implement the 'competition' theory, however, it is important to point out that proposals should not be allowed to restrain the appropriate use of needed medical services."

Fred Rainey, M.D., Chairman of the AMA Council on Legislation, testified that "it is important to state at the outset that all increases in medical care costs over the past two decades do not represent a 'problem' but in fact reflect solutions to long-term public health problems such as high infant mortality and poor access to care."

The Kentucky physician noted that the AMA has been greatly concerned about cost increases and has been actively engaged in activities designed to bring these increases under control.

A consumer choice bill should not be used to create incentives to underinsure, Dr. Rainey said. "Furthermore, no legislative initiative should be considered that would have the effect of rationing or lowering the quality of care in this country."

Dr. Rainey was one of scores of witnesses who appeared at three days of hearings by the Subcommittee on the issue that has achieved impetus from the Reagan Administration's enthusiastic backing of the idea.

The Reagan Administration is still at work preparing its procompetition, or consumer-choice plan, but is wedded to the concept, said Robert Rubin, M.D., Assistant Secretary for Planning and Evaluation at HHS.

Dr. Rubin said the plan won't be ready for a few months and that the Administration anticipates congressional action next year. "Consumer choice and market forces, rather than regulation, should be relied on to control health cost inflation," he told the Subcommittee.

Dr. Rubin, who is heading the Administration's "intensive study and analysis" of procompetition, said "the current system is inherently inflationary and based on the wrong fundamental incentives for virtually every party—patients, hospitals, doctors, insurers, employers, and government regulators. One alternative is more regulation—arbitrary "caps" on every health budget item, more paperwork, less innovation, and less patients' satisfaction. That course ultimately leads to utility regulation with government rationing and rate setting."

The success of a competitive strategy "rests on our ability to influence behavior—through marketplace incentives and penalties rather than government regulation," he said. "It is an idea whose time has come."

Organized labor has dug in its heels against "procompetition" legislation.

At the opening session, labor renewed its old hate affair. Bert Seidman, Director of the AFL-CIO Department of Social Security, said "we cannot accept the unfounded

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Prepared by the Washington, D.C., office of the American Medical Association.

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Supplementary Foods for Infants

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During the last century, practices of infant feeding in the United States and much of the Western World have changed from a dominant pattern of breast-feeding for one or more years, through the use of formulas consisting of dilutions of fresh or evaporated milk and, most recently, a renewed interest in and a growing scientific rationale for breast-feeding. During this time, practices concerning the supplementation of human milk or its substitutes with other foods and specific essential nutrients have varied from starting such feeding at the age of one year to competition among mothers to begin "solid" foods as early as possible. The purpose of this article is to review the information on which recommendations for supplementary feedings are based.

Human milk or prepared formula in amounts producing normal growth patterns meet all of the nutritional requirements of full-term infants for the first six months of life.[1] Breast-fed infants of healthy mothers have similar weight gains throughout the world until about six months of age when growth may slow if supplementary food is not available to the infant. The exact age at which current prepared formulas need supplementation has not been established but can be assumed to be similar. Before the age of six months, the only supplements which need to be considered are iron, vitamin D and fluoride.

IRON

Milk from either dairy animals or nursing mothers contains little iron. However, the small amount (0.3 to 0.4 mg/L) in human milk is well absorbed by the nursing infant with an average figure being 50%. The specific biochemical factors which are responsible for its high bioavailability are not yet known. Cow's milk-based formula (iron content about 0.8 mg/L) has a bioavailability of about 10% so that the net absorption is nearly half of that in human milk. The iron in fortified formulas (12 mg/L) is less efficiently absorbed (about 4%), but the amount retained is larger. Studies[2] of breast-fed infants show negligible iron deficiency anemia under six months of age; infants fed diluted cow's milk formulas without added iron may develop anemia by the age of four months; and infants fed iron-supplemented formulas rarely become anemic. There is evidence that feeding supplementary foods to nursing infants between four and six months interferes with their iron absorption.

Because some of this information is relatively recent, it has not yet been incorporated into the recommendations of official bodies or individual reviewers. Although the administration of iron to infants is a well-known public health measure,[3] the way in which this type of prevention is applied to individuals should be related to their particular needs. There is general agreement that prepared formulas based upon either cow's milk or soy protein should contain added iron and that iron deficiency is unlikely when this practice is followed. However, the breast-fed infant, especially the exclusively breast-fed infant, does not need an iron supplement before feeding of supplementary food is begun at about six months of age. At this time iron-fortified cereal appears to be an adequate source of iron.

VITAMIN D

Rickets has reappeared in the U.S. population and the question of vitamin D usage needs review. Excluding rickets caused by metabolic disease and an abnormally high requirement of vitamin D, most of the rickets recently reported has been in breast-fed infants.

Much evidence suggests that deprivation of sunlight, rather than failure to administer vitamin D supplements, is the basic cause. Nursing mothers who wear dark clothing for cultural or religious reasons apparently secrete milk which contains reduced amounts of vitamin D.[4] Air pollution and cloud cover during the winter months can also reduce the activation of 7-dehydrocholesterol in the skin by ultraviolet light. Pigmented skin is also a factor and many of the recently reported cases have been in Blacks where a combination of the above factors exists.[4] When sunlight is available to mother and infant, supplementation with vitamin D is unnecessary. Probably for most of the U.S., 300-400 I.U. of vitamin D is supplied by prepared formulas and similar amounts should be given to nursing infants when deprivation from sunlight is suspected.

FLUORIDE

Present recommendations for fluoride supplementation are based upon the amount of fluoride in the water supply and are difficult to extrapolate into the first year of life.[5] Human milk contains little fluoride whether the mother's intake is high or low. Formulas are manufactured with low fluoride water to avoid overdosage when diluted with water of varying fluoride content. Epidemiological studies on the role of fluoride intake in preventing dental caries have not yet been extended into the first year of life. There is some doubt concerning the effect of fluoride before eruption of the teeth. Because of this lack of specific information concerning fluoride in the first year of life, recommendations take different approaches. One is to recommend the routine use of fluoride from birth onwards. Another is to depend on the amount of fluoride in the water supply with supplements used only when the water supply contains less than 0.7 ppm. The intake of water is quite variable during the first year of life. One recent recommendation has compromised on the phrase "soon after birth" which reflects our lack of specific information concerning this question.[6]

When breast-feeding is recommended as the sole source of nutrition for infants, the prescription of supplements of iron, vitamin D and fluoride would not seem necessary except in unusual circumstances.

SUPPLEMENTARY FEEDING

In anticipation of nutritional need and depending on developmental readiness, the infant between 4 and 6 months of age can benefit from beginning to acquire lifelong eating habits.[7] There are two major objectives: to appreciate and enjoy a variety of foods and to learn to keep caloric intake and output in balance. At this age the infant learns to eat from a spoon and to express both eagerness for food and satiety. Although precooked infant cereal fortified with iron is the food usually started first, the order in which strained fruits and vegetables are added is unimportant. Variety in the diet can be thought of in two ways: the basic four food groups or variety in such aspects of food as taste, color, consistency and temperature. Infants consuming diets monotonous in one or more of these attributes are at risk of developing nutritional deficiency. During the period of introduction of supplementary foods, it is more important for the infant to learn to enjoy foods of differing tastes and colors than to have an arbitrary amount of each food since breast milk or formula still supplies the major portion of the calories and essential nutrients. At first the consistency will be that of strained food. As development of motor skills, such as swallowing small particles and a pincer grasp occurs, the infant begins to feed himself and to begin the transition from specially prepared foods to a modified adult diet. Temperature variation, so important to adults, begins. By the age of one year, most infants have completed this transition.

OTHER MILK FEEDINGS

In 1976, the Committee on Nutrition of the American Academy of Pediatrics published standards for infant formula.[8] These standards have been recognized as the best possible estimate of the nutritional requirements of infants during the first year of life. The question often arises concerning the nutritional adequacy of other milk feedings as substitutes for infant formula.

Cow's milk in undiluted form contains amounts of protein and electrolytes which exceed the maximum limits of these standards. When diluted with water and with added carbohydrate, which was a practice widespread a generation ago, cow's milk in either fresh or evaporated form is lacking in ascorbic acid, tocopherol (vitamin E), and essential fatty acids. It also needs to be supplemented with iron. There is increasing evidence that pasteurized, homogenized, fresh cow's milk, particularly when consumed in large amounts, is associated with occult blood loss.[9] Even ordinary amounts (less than one quart daily) have been associated with biochemical iron deficiency when compared with a formula not fortified with iron.[10] Although the mechanism by which fresh cow's milk produces occult blood loss is not yet known in detail, it is most likely due to immunologic immaturity of the infant intestine. Thus, it seems wise to recommend that fresh cow's milk not be used in infant feeding until the intestinal tract reaches immunologic maturity, which probably occurs towards the end of the first year of life.

Skim milk, although cheap, has all the drawbacks of undiluted cow's milk. It does not meet the minimum requirement for fat, even when infant foods make up a significant proportion of the total calories.[11] A study has shown that infants did not gain weight at the expected rate on ad libitum skim milk feedings. Fat calories are needed by infants in addition to their requirements for fat-soluble vitamins and essential fatty acids.

OBESITY

Since the first year of life is a time of rapid development of behavioral patterns including those involved in food intake, achieving a balance between energy intake and energy needs can be part of this developmental process. Monitoring the growth in height and weight is part of health care. The use of growth charts, such as those published by the National Center for Health Statistics, is necessary to relate the growth pattern of the individual infant to the population in which he lives. Although there is considerable variation in size, the rate of growth generally follows the same pattern. An infant who gains at a rate which soon places him above the 95th percentile for weight needs a review of his caloric intake and the circumstances surrounding his feeding. Is food used as a pacifier or as a reward? What does his caretaker(s) know about his individual caloric needs? Although the average caloric requirement for the first year of life is stated to be 100-110 kcal/kg/day, the standard deviation is not well defined. Some infants thrive and grow on intakes less than average, and others eat more without gaining excessive weight. Only individual understanding and management based upon the specific circumstances is effective and may be difficult. Although the evidence linking infantile obesity to obesity in childhood and adulthood is still not conclusive, rapid weight gain in infants should not be ignored.

SUMMARY

Either breast-feeding or the use of an iron-containing infant formula meets all of the nutritional needs of the infant for the first six months of life when available in amounts which result in normal growth. The goal of supplementary feeding is the development of lifelong eating patterns which will maintain optimal health. The introduction of supplementary foods is based upon both nutritional need and developmental readiness.

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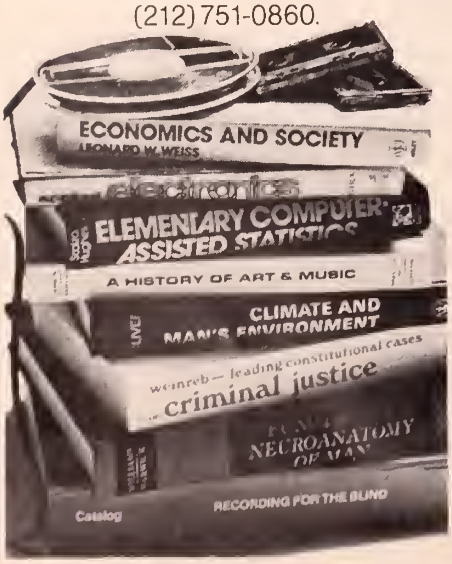

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premise that competition in the health-care industry can contain health care costs." Enactment of procompetition "would impose a highly unrealistic, fanciful, and harmful scheme on the American people," he said.

Said Seidman: "Deductibles, copayments and inadequate coverage have been resisted by unions for many years because comprehensive benefits are what the membership wants . . . . Unions are determined to preserve the gains won over many years through collective bargaining and will strongly resist any attempts to take away these gains by legislation. Our members want more insurance, not less."

Alexander McMahon, President of the AHA (American Hospital Association), said his organization believes that consumer choice approaches "represent a promising alternative to traditional regulatory approaches."

Changes in the current financing and payment system could create new and different risks for hospitals and other providers of health-care services, McMahon said. "Nevertheless, we feel that many of these concerns are fears of the unknown. Therefore, the AHA has taken an active role in stimulating discussion and examination of consumer choice concepts."

Michael Bromberg, Executive Director of the FAH (Federation of American Hospitals), testified that "restoring cost consciousness to providers and consumers is intrinsic to any solution to rising health costs."

Bromberg said the FAH believes that "a ceiling on tax free premium contributions, a uniform employer contribution, and a Medicare voucher system would best strike the right balance between the patient's interest in getting good health care and society's interest that the value of health care benefits exceeds their associated costs."

Alice Rivlin, Director of the Congressional Budget Office, cast a rather skeptical eye on consumer choice. "The available evidence suggests that employers would be reluctant to offer a choice of plans," she said. "Even under present law, employers that require a contribution from their employes can offer a choice of health plans and reward those selecting plans with lower premiums. Yet these firms seldom take advantage of this opportunity."

Adverse selection might occur with those likely to be low users tending to choose low option plans and those likely to be high users picking the high options, Rivlin said.

Despite the Administration's enthusiastic approach to procompetition health plans, the reaction voiced by consumer, provider, business, and insurance groups, during the three days of hearings was one of caution.

* * *

The AMA has joined an assortment of professional and pharmaceutical groups in urging the FDA (Food and Drug Administration) to pull back from plans to mandate PPIs (patient package inserts) for 10 commonly prescribed drugs.

The three-year pilot program was put on hold early this year by FDA Commissioner Arthur Hull Hayes, Jr., M.D. The Commissioner has said that he favored providing information to patients about drugs, but was seeking new information about benefits and costs.

In AMA testimony trustee Alan R. Nelson, M.D., said a PPI must "have a demonstrable effect on patient compliance with a drug regimen in order for it to be deemed clinically or cost effective." If it doesn't, then it provides no benefit to patient or physician, he said.

While questioning the validity of a study of PPIs conducted for FDA by the Rand Corporation, Dr. Nelson noted that the study appeared to show that PPIs did not improve patient compliance with prescribed drug therapy, and urged the agency to rescind the mandatory PPI program.

Dr. Nelson said the AMA supports the provision of information about drugs to patients by physicians, and he urged the FDA to consider the possibility of a private sector demonstration program with physicians, rather than pharmacists, as the dispensers of information.

James H. Sammons, M.D., AMA Executive Vice President, has been elected to membership in the Institute of Medicine, an arm of the National Academy of Sciences.

Dr. Sammons was one of 50 new members elected by the Institute's present 321 active members to a five-year term. Candidates for membership are selected for their contributions to health and medicine, or to related fields such as law, administration, engineering, and the social and behavioral sciences.

Of the newly elected members, 34 are physicians, including Edward N. Brandt, Jr., M.D., Assistant Secretary for Health.

Roller disco dancing downs skater

Can roller disco dancing get on your nerves?

You bet—the nerves in your feet, that is.

In the Journal of the American Medical Association, August 21, two Michigan physicians report that a teenage patient experienced numbness over part of her right foot during a three-month period when she was participating in the current roller disco craze. The young girl's symptoms disappeared within one month after she discontinued her roller disco dancing.

The physicians have termed the syndrome "disco neuropathy," and describe it as compression of a nerve serving the foot.

The condition is reversible, they say, by removing the cause—a tight fitting roller skate.

continued from page 1850

Commissioner Grossi explained that W.I.C. participants are enrolled for six months, after which time their eligibility will be reevaluated. Parents are given a two-month supply of checks which are redeemable at authorized local supermarkets and pharmacies for specified foods. These foods include fortified formulas, cereals, and juices for infants, and whole milk, eggs, cheeses, cereals, and juices for older children.

"An integral part of the W.I.C. program," Commissioner Grossi added, "is the individual and group instruction in food values, daily menus, shopping, and food preparation that participating parents receive to help them offer their children a nutritionally balanced diet.

"W.I.C. is generally agreed to be the most successful federal program. The New York City Health Department has utilized the program's resources to maximum levels, providing nutritional meals to as many children as possible. W.I.C. has thus far not been subjected to federal budget cuts."

Sundays with Dr. Weisman—for seniors

"Sundays for Seniors—an Innovative Program in a Brownstone" is a new Sunday senior program.

Based on the "laugh and live longer" theme, the day starts with a group-participating session dealing with any of a number of interests (music, art, poetry, drama, dance) with emphasis on nutrition for seniors. A Sunday brunch follows, with sandwiches brought from home and a special health-soup prepared by the host to fit in with the opening discussion. For example, if French art is the opening subject, French onion soup would follow, and so on.

An arm-chair voyage to distant places follows, via slides. With French art and cuisine, the arm-chair travel would be either Paris or Southern France. Each Sunday, the group sessions, health soups, and "safaris" are to be coordinated accordingly.

At 2 p.m. there is a break for "7th-inning-stretch," a walk or other movement so essential for seniors.

The final hours of the day are planned for social bridge with friends, with Weisman around to "settle the arguments." There will be other tables for Canasta, Ma Jong, Scrabble, or chit-chat. For those interested in browsing or reading, the Center library affords a splendid opportunity to escape card-playing if need be.

For further information, contact Kitty Kittner, telephone (212) 722-5300.

Health Department begins investigation into puzzling, rare diseases

The New York City Health Department has launched a medical investigation into the puzzling appearances of two rare and serious diseases afflicting the gay male community, Acting Health Commissioner Margaret T. Grossi, M.D., announced October 7.

"KS (Kaposi's sarcoma)—a tumor of the skin and mucous membranes—and PCP (*Pneumocystis carinii* pneumonia)—an infection of the lung—have been found in more than 60 young to middle-age gay men in New York City since 1980," Commissioner Grossi said. "This represents nearly two thirds of the nationwide case total in this population group.

"What makes KS and PCP medically troublesome is

continued on page 1922

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Harold Yuker is Provost of Hofstra University. He has cerebral palsy.

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their high fatality rate among healthy, relatively young people, a group never before afflicted by these diseases," Commissioner Grossi continued. "KS had mainly been found in elderly men. All cases of PCP were previously diagnosed in premature babies or adults in weakened conditions. The recent and continuing contraction of these diseases by apparently healthy young and middle-age gay men is a new and distressing manifestation of both conditions."

Stephen Friedman, M.D., Assistant Commissioner of the Health Department's Preventable Disease Bureau, said the Department will participate in a collaborative study with the Federal Government's Centers for Disease Control.

"As most of the targeted KS and PCP patients live in New York City, the Federal Government decided to concentrate its epidemiologic efforts here," Dr. Friedman said. "Healthy gay and heterosexual male patients randomly chosen from public and private clinics will be contacted and asked to fill out a questionnaire and submit a blood test. By comparing information of healthy individuals with similar life styles to those who are or who have been afflicted, we will attempt to determine the factors or conditions which lead to the diseases."

Symptoms of KS, according to Dr. Friedman, include fever, weight loss, enlarged lymph nodes, and purple lesions of the skin and lining of the nose and mouth. Reactions to PCP include weight loss, general malaise, shortness of breath, and a persistent dry cough and fever.

Commissioner Grossi added: "An investigation of these diseases has begun and a start has been made toward developing a medical resolution to this serious and growing health problem. We are asking all area physicians and laboratories to report all cases of KS and PCP to the Health Department's Preventable Disease Unit as soon as diagnosis is made. Following the early pattern of the diseases may help us determine the reasons for their development."

Here and there

Appointed: Arthur Berken, M.D., Mid-Island Hospital, has been appointed full professor on the faculty of Stony Brook . . . Frederick Helm, M.D., has been appointed chief of the Dermatology Department, Roswell Park Memorial Institute, Buffalo . . . and Heinz Kohler, M.D., has been appointed director of the Immunology and Immunochemistry Research Department, Roswell Park Memorial Institute, Buffalo.

Honored: Paul W. Lapidus, M.D., was presented the Fifth Biennial Tribute by the *Orthopaedic Review*.

Lecturer: Arthur Alexander Knapp, M.D., to lecture at the next Annual Meeting of The Association of Military Surgeons. Dr. Knapp is also a Captain in the U.S. Navy.

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Allan E. Rubenstein, M.D.
January 13
THE SURGICAL TREATMENT OF CEREBRAL VASCULAR DISEASE
Jeffrey Lavigne, M.D., Alcides C. Pomina, M.D.
January 20
CAT SCAN IN NEUROLOGIC DISEASE
Allan E. Rubenstein, M.D.
January 27
THE CLASSIFICATIONS AND TREATMENT OF SEIZURE DISORDER
David H. Rosenbaum, M.D.
CREDIT: AMA Cat. 1
For further information contact the Department of Medicine at St. Mary's Hospital, 170 Buffalo Avenue, Brooklyn 11213. Tel: 212/774-3600 ext. 2044 or 2045.

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Brooklyn
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Basement, Leviton Bldg.
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Yehuda Nir, M.D.
January 13
THYROID CANCER
Robert Lerner, M.D.
January 20
GENE DEFECTS IN THE THALASSEMIA SYNDROMES
Arthur Bank, M.D.
January 27
NON HODGKIN'S LYMPHOMA IN CHILDREN
Norma Wollner, M.D.
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170 East End Avenue
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Paul B. Iannini, M.D.
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January 18, 8:00 p.m., Monday
INTRAOCULAR LENSES
Norman S. Jaffe, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)
For further information contact Norman B. Medow, M.D., New York Society for Clinical Ophthalmology, 146 East 71st Street, New York 10021.

State University of New York Downstate Medical Center Kings County Hospital Center in cooperation with District I, NYSSA

450 Clarkson Avenue
Brooklyn
January 18, 4:00–5:00 p.m., Monday
VISITING PROFESSOR PROGRAM
RESPONSE TO RELAXANTS FOR PATIENTS WITH NEUROMUSCULAR DISORDERS
Isaac Azar, M.D.
January 19, 5:00–6:00 p.m.
MONITORING THE NEUROMUSCULAR JUNCTION
Isaac Azar, M.D.
CREDIT: AMA Cat. 1
For further information contact Abraham I. Raskob, M.D., Clinical Associate Professor, Program Coordinator, Department of Anesthesiology, SUNY Downstate Medical Center, 450 Clarkson Avenue, Brooklyn. Tel: 212/735-2133.

Lincoln Hospital in affiliation with New York Medical College

1901 First Avenue
January 19, 3:30 p.m., Tuesday
DERMATOPATHOLOGY
Martin H. Brownstein, M.D.
CREDIT: AMA Cat. 1 (2 hrs.)
For further information contact Victor Tchertkoff, M.D., Coordinator, Metropolitan Hospital Center, 1901 First Avenue, New York 10029. Tel: 212/360-6253.

The New York Cardiological Society, Inc.

84 Grove Street, Suite Two
*Hilton Room, Waldorf-Astoria Hotel
January 28, 8:00 p.m.
ARVILLA BERGER LECTURE ON CARDIOLOGY
Norman E. Shumway, M.D.
NO FEE. CREDIT: AMA Cat. 1 (2 hrs.)
For further information contact New York Cardiological Society, Inc., 84 Grove Street, New York 10014. Tel: 212/924-5346.

Beth Israel Medical Center and the National Jewish Hospital and Research Center/National Asthma Center cosponsored by The Page and William Black Post-Graduate School of the Mount Sinai School of Medicine, CUNY

*Podell Auditorium/Beth Israel Medical Center
10 Nathan D. Perlman Place
January 29, 9:00 a.m.–2:30 p.m., Friday
CURRENT CONCEPTS IN ASTHMA, ALLERGY AND CLINICAL IMMUNOLOGY
Drs. James M. Rubin and Stuart Young
FEE: TO BE ANNOUNCED. CREDIT: AMA Cat. 1 (5 hrs.)
For further information contact Beverly R. Baptiste, Post-Graduate Education Office. Tel. 212/420-2000.

Beth Israel Medical Center

10 Nathan D. Perlman Place
* Stern Auditorium
Mount Sinai Medical Center
January 30, 8:00 a.m.–4:00 p.m.
9TH ANNUAL BREAST CANCER SYMPOSIUM
Louis Venet, M.D.
For further information contact Beverly R. Baptiste, Post-Graduate Education Office, Beth Israel Medical Center, 10 Nathan D. Perlman Place, New York 10003. Tel: 212/420-2000.

Albert Einstein College of Medicine of Yeshiva University
And Montefiore Hospital and Medical Center

111 East 210th Street
Bronx
*Condesa Del Mar Hotel
Acapulco, Mexico
January 25–29
PROBLEMS IN THE GROWING CHILD
For further information contact Office of Continuing Professional Education, Montefiore Hospital and Medical Center, 111 East 210 Street, Bronx 10467. Tel: 212/920-6676.

QUEENS COUNTY

Long Island Jewish-Hillside Medical Center, Queens Hospital Center Affiliation, The Postgraduate Institute for Medical and Dental Education and the Health Services Center SUNY at Stony Brook

*Nurses Auditorium
Queens Hospital Center
86-68 164th St.
Jamaica
7:00–9:30 pm.
January 13 through June 9, Wednesday Evenings
THE 3RD ANNUAL INTERNAL MEDICINE BOARD REVIEW COURSE
FEE: $250. CREDIT: AMA Cat. 1 (66 hrs.)
$125. for Interns and Residents
For further information contact Ann J. Boehme, Continuing Education Coordinator, Long Island Jewish-Hillside Medical Center, Queens Hospital Center Affiliation, New Hyde Park, 11042. Tel: 212/470-2114.

NASSAU COUNTY

Long Beach Memorial Hospital in affiliation with The Page and William Black Postgraduate School of Medicine of The Mount Sinai School of Medicine (CUNY)

455 East Bay Drive
Long Beach
January 5, 4:00–6:00 pm.
UPDATE IN UROLOGY
Elliot Leiter, M.D.
NO FEE. CREDIT: AMA & AAFP
For further information contact Long Beach Memorial Hospital, 455 East Bay Drive, Long Beach 11561.

Nassau County Medical Center

2201 Hempstead Turnpike
East Meadow
*Amphitheater Dynamic Care Building
10:00 a.m., Thursdays
MEDICAL GRAND ROUNDS
January 7
MECHANISM OF ACTION OF ANTIARRHYTHMIC DRUG
Michael R. Rosen, M.D.
January 14
CURRENT APPROACH TO TINNITUS
Abraham Shulman, M.D., Barbara Goldstein, Ph.D.
January 21
CONTROL AND MANAGEMENT OF ACUTE LEUKEMIAS
Peter Wiernik, M.D.
January 28
CHRONIC OBSTRUCTIVE PULMONARY DISEASE
Frederick Sachs, M.D.
CREDIT: AMA Cat. 1 and AAFP
For further information contact Ethel Ford, Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow 11554. Tel: 516/542-3713.

Long Island Jewish-Hillside Medical Center and the Health Sciences Center State University of New York at Stony Brook, Sponsored by Department of Surgery New Hyde Park

*Teaching Center Auditorium, Room 201A
DEPARTMENT OF SURGERY GRAND ROUNDS
Thursdays, September 3, 1981 thru June 24, 1982
January 7
APPROACHES TO THE THERAPY OF HEPATIC METASTASES
Irving Ariel, M.D.
January 14
GUEST LECTURER
VENOUS THROMBOSIS
Makis J. Tsapogas, M.D.
January 21
TRANSVERSALIS HERNIOPLASTY: A PROSPECTIVE STUDY
Stanley Berliner, M.D.
January 28
PSYCHOLOGICAL ASPECTS OF BREAST CANCER AND OTHER MALIGNANCIES
Maurice Steinberg, M.D.
For further information contact Reid Aaron at 212/470-2663.

SUFFOLK COUNTY

St. Charles Hospital

200 Belle Terre Road
Port Jefferson
* St. Charles Lecture Room
January 4, 1982—Monday, 11:45 a.m.–1:15 p.m.
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
* St. Charles Classroom "A"
January 8, Friday, 8:00 a.m.
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
* St. Charles Lecture Room
January 11, Monday, 11:45 a.m.–1:15 p.m.
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
* St. Charles Classroom "A"
January 12, Tuesday, 11:00 a.m.
OB/GYN CONFERENCES
A NEPHROLOGIST'S VIEW OF HYPERTENSION IN PREGNANCY
Leonard A. Arbeit, M.D.
* St. Charles Classroom "A"
January 15, Friday, 8:00 a.m.
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH HILLSIDE MEDICAL CENTER
* St. Charles Board Room
January 18, Monday, 7:00 a.m.
ANESTHESIOLOGY CONFERENCE
ANESTHESIA FOR CRANIOTOMY
Edward A. Norris, M.D.
* St. Charles Lecture Room
January 18, Monday, 11:45 a.m.–1:15 p.m.
TUMOR CONFERENCE
SEMINARS IN ONCOLOGY
* St. Charles Classroom "A"
January 22, Friday, 8:00 a.m.
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH HILLSIDE MEDICAL CENTER
* St. Charles Lecture Room
January 22, Friday, 8:00 a.m.
FAMILY PRACTICE PROGRAMS
(TOPIC TO BE ANNOUNCED)
* St. Charles Lecture Room
January 25, Monday, 11:45 a.m.–1:15 p.m.
TUMOR CONFERENCE
THE PROBLEMS OF NUTRITION IN CANCER PATIENTS
Rosemary E. D'Angelo
* St. Charles Classroom "A"
January 29, Friday, 8:00 a.m.
PEDIATRIC ELECTRONIC BLACKBOARD
PEDIATRIC GRAND ROUNDS WITH LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER
For further information contact Mary Rotolo, Dept. of Medical Education, St. Charles Hospital, Port Jefferson. Tel. 516/473-2800.

Mather Memorial Hospital

North Country Road
Port Jefferson
* Mather Conference Room
January 5, 1982, Tuesday, 11:30 a.m.–1:00 p.m.
WEEKLY EDUCATIONAL SERIES
NEWER CONCEPTS IN ADULT DIABETES
John Aloia, M.D.
* Mather Conference Room
January 12, Tuesday, 11:30 a.m.–1:00 p.m.
WEEKLY EDUCATIONAL SERIES
CALCIUM CHANNEL BLOCKERS
* Mather Conference Room
January 13, Wednesday, 7:30 a.m.
PSYCHIATRIC CONFERENCE
PERSONALITY DISORDERS
Peter Luke, M.D.
* Mather Conference Room
January 18, Monday, 7:30 p.m.
OPHTHALMOLOGY CONFERENCE
(TOPIC TO BE ANNOUNCED)
* Mather Conference Room
January 19, Tuesday, 11:30 a.m.–1:00 p.m.
WEEKLY EDUCATIONAL SERIES
PROGRESS IN ANTIBIOTICS
* Mather Conference Room
January 26, Tuesday, 11:30 a.m.–1:00 p.m.
WEEKLY EDUCATIONAL SERIES
1982 FDA FACTS AND FICTION
John L. S. Holloman, Jr., M.D.
* Mather Conference Room
January 26, Tuesday, 8:00 a.m.
PEDIATRIC CONFERENCE
For further information contact Mary Rotolo, Dept. of Medical Education, Mather Memorial Hospital, Port Jefferson, New York 11777. Tel. 516/473-1320.

FUTURE EVENT

ROCHESTER

The University of Rochester Medical Center

601 Elmwood Avenue
Rochester
*Rochester Marriott Inn
5257 W. Henrietta Road
March 3–6
A POSTGRADUATE COURSE IN ORTHOPAEDIC MEDICINE—PART I
James H. Cyriax, M.D.
For further information contact Office of Continuing Professional Education, The University of Rochester Medical Center, 601 Elmwood Avenue, P.O. Box 677, Rochester 14642. Tel: 716/275-4392.

ATTENTION, ANYONE WISHING TO SUBMIT AN ANNOUNCEMENT FOR "WHAT GOES ON IN CONTINUING MEDICAL EDUCATION" ALL CONTINUING MEDICAL EDUCATION ANNOUNCEMENTS MUST BE RECEIVED THE 15th OF THE MONTH, THREE MONTHS PRIOR TO THE DATE OF THE EVENT.

physicians' placement opportunities

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Please send information to the Editor, WHAT GOES ON,
420 Lakeville Road, Lake Success, New York 11042
Telephone 516-488-6100

ALLERGIST

MONTICELLO, N.Y., contact Gustave Gavis, M.D., P.O. Box 710, 410 Broadway, Monticello Medical Bldg., Monticello NY 12701. Tel: 914/794-4900.

ANESTHESIOLOGIST

MONTICELLO, N.Y., contact Carl K. Heins, M.D., Hamilton Avenue Hospital, Monticello 12701. Tel: 914/794-4545.

WILLARD Area Hospital, Ohio, contact James H. Ross, Jr., Administrator. Tel: 419/933-2931 between 8:00 a.m.–4:00 p.m.

COMMISSIONER OF HEALTH

POUGHKEEPSIE, N.Y., contact Andree F. Sullivan, New Tower, Vassar Brothers Hospital, Poughkeepsie 12601. Tel: 914/452-2140.

EMERGENCY ROOM

BUFFALO, N.Y., contact Lafayette General Hospital, 113 Lafayette Avenue, Buffalo 14213. Tel: 716/885-8900.

ONEONTA, N.Y., contact Randolph E. Knob, M.D., Director or Mr. F. M. Isbell, Adm., A. O. Fox Memorial Hospital, 1 Norton Avenue, Oneonta 13820. Tel: 607/432-2000.

PATCHOGUE, N.Y., contact Dorothy S. Lane, M.D., Brookhaven Memorial Hospital, 101 Hospital Rd., Patchogue 11772. Tel: 516/654-7797.

UTICA, N.Y., contact Irving Cramer, M.D., Medical Director, St. Luke's Memorial Hospital Center, P.O. Box 479, Utica 13503.

ENT

LONG BEACH, N.Y., contact Oscar Sreter, M.D., 270 Edward Blvd., Long Beach 11561. Tel: 516/431-7861.

OLEAN, N.Y., contact Dr. Edward R. Mountain, 1909 West State St., Olean, 14760. Tel: 716/372-2788.

FAMILY PHYSICIAN

ADAMS, N.Y., contact South Jefferson Recruiting Comm., c/o Mrs. Fred Spinner, RFD#2, P.O. Box 1114, Adams 13605.

ATHENS, N.Y., contact Village Clerk, 2 First Street, Athens 12015. Tel: 518/945-1551.

AUBURN, N.Y., contact Charles D. Hicks; Director, Physician Procurement Committee, 157 Ross Street, Auburn 13021. Tel: 315/253-3388.

BATH, N.Y., contact W. A. Klepack, Box 831, Bath 14810. Tel: 607/776-6438 call collect.

BINGHAMTON, N.Y., contact Broome County Medical Society. Tel: 607/729-9261.

HUNTINGTON, N.Y., contact Douglas R. Phillips, M.D., 74 Quail Run Drive, Deer Park 11729. Tel: (Office) 516/379-2689 or (Home) 516/242-8766.

ITHACA, N.Y., contact Jerry Hersh, M.D., 402 North Cayuga Street, Ithaca 14850. Tel: (Office) 607/273-8505 or (Home) 607/277-3280.

MARGARETVILLE, N.Y., contact Joseph Kehoe, Adm., Margaretville Hospital, Margaretville 12455. Tel: 914/586-2631.

ONEIDA, N.Y., contact Frances B. Carlson, 577 Stoneleigh Rd., Oneida 13421.

OSWEGO, N.Y., contact J. Sherwood Dunham, Oswego Hospital, 110 West Sixth Street, Oswego 13126.

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GENERAL SURGEON

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INTENSIVE CARE

FREEPORT, N.Y., contact Sheldon Klahr, Administrator, Lydia Hall Hospital, 320 West Merrick Road, Freeport, 11520. Tel: 516/378-8500.

INTERNIST

FREEPORT, N.Y., contact Lydia E. Hall Hospital, 320 West Merrick Road, Freeport 11520.

HANCOCK, N.Y., contact Osias M. Villaflor, M.D., 5 Fairview Avenue, Hancock 13783. Tel: 607/637-4941.

ITHACA, N.Y., contact Jerry Hersh, M.D., 402 North Cayuga Street, Ithaca 14850. Tel: (Office) 607/273-8505 or (Home) 607/277-3280.

LITTLE FALLS, N.Y., contact Nicholas A. Prisco, Adm., Little Falls Hospital, 140 Burwell Street, Little Falls 13365. Tel: 315/823-1000, ext. 261 or 262.

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OBSTETRICIAN/GYNECOLOGIST

AUBURN, N.Y., contact Charles D. Hicks, Director, Physician Procurement Committee, 157 Ross Street, Auburn 13021. Tel: 315/253-3388.

NORWICH, N.Y., contact Errorl G. Jacobi, M.D., Medical Arts Bldg., Norwich 13815. Tel: 607/334-2756.

PORT JEFFERSTON STATION, N.Y., contact Howard Gelfand, M.D., 9 Medical Drive, Pt. Jefferson Station 11776. Tel: 516/331-1120.

ORTHOPEDIC SURGERY

FREEPORT, N.Y., contact Lydia E. Hall Hospital, 320 West Merrick Road, Freeport 11520.

JOHNSON CITY, N.Y., contact Farouq Al-Khalidi, M.D., 370 Main St., Johnson City 13790.

WARWICK, N.Y., contact Bruce A. Smith, Adm., St. Anthony Community Hospital, 15–19 Main Ave., Warwick 10990. Tel: 914/986-2276.

PEDIATRICS

ITHACA, N.Y., contact Jerry Hersh, M.D., 402 North Cayuga Street, Ithaca 14850. Tel: (Office) 607/273-8505 or (Home) 607/277-3280.

PSYCHIATRIST

AUBURN, N.Y., Position available in a Community Mental Health Center. Write or call Peter P. Midura, M.D., Director, 146 North St., Auburn 13021. Tel: 315/253-0341.

PATCHOGUE, N.Y., contact Dorothy S. Lane, M.D., Brookhaven Memorial Hospital, 101 Hospital Rd., Patchogue 11772. Tel: 516/654-7797.

STUDENT HEALTH SERVICE

HAMILTON, N.Y., needs a Director for Student Health Service. Contact Alan S. Glos, Assistant Dean of Students, Colgate University, Hamilton 13346. Tel: 315/824-1000.

SURGEON—CARDIAC VASCULAR

FREEPORT, N.Y., contact Lydia E. Hall Hospital, 320 West Merrick Road, Freeport 11520.

INFORMATION REGARDING OPENING FOR A PHYSICIAN
(General Practice or Specialist Associate)

Date________________

Name of Town________________________County________________________State______________

Population________Population of area served by physician____________________________

What type of specialty?____________________________New opening?______________
If this is a replacement, why did former physician leave?______________________

When will position be available?____

Please list special requirements: a) Residency training?_________________________
b) Board eligible?______________Board certified?____________________Age?__________

Please describe type of practice: a) Solo?_____b) Association?_________Please describe the reason for associateship____
c) Group practice? Please give details, i.e., number in group, number in this specialty, when group was commenced____

Please show what type of financial agreement is acceptable: a) Straight salary?___________
b) Percentage basis?_________c) Will investment be necessary?____________________
d) If partnership basis is acceptable, how soon would it be available?_____________
____________________e) Would written agreement be used?_________________________

Office space available? Yes______No______ If yes, describe briefly__________________

Living quarters available? Yes______NO______ If yes, describe briefly_______________

Is there a hospital in the town? Yes______No______ If yes, please describe, i.e., number of beds, type of ownership, how soon can physician obtain hospital privileges____________

If no, please describe hospitals in nearby areas______________________________

List any other features which you consider would make the position attractive to a prospective physician____

List person to be contacted by interested physician giving name, address and telephone number

When completed, kindly return to: Physicians' Placement Bureau, Medical Society of the State of New York, 420 Lakeville Road, Lake Success, N.Y. 11042. Telephone: (516) 488-6100.

QUESTIONNAIRE FOR PHYSICIANS SEEKING LOCATIONS

(Please print in black)

Name____Date____________

Address____

____

(Zip code number) (Telephone Number)

Date of Birth__________Place of Birth__________________________

Citizenship Status__________________________Marital Status__________

Medical School_____________________________Year Graduated__________

Internship____

Hospitals___________________________________Dates______________

Residency____

Hospitals___________________________________Dates______________

Specialty____

Licensed in what States?_______________________________________

Applied for____

American Board Certificates held?_________________________________

Eligible______________________Certified_________________________

Do you have a New York State License?________Date of Certificate____________

Military Status____

Professional Organization Memberships_____________________________

Are you in practice at present?________What type of practice are you interested in?

Solo______Associate______Industrial______Group______Institutional________

Other____

Date you will be available for practice________Former locations in which you have practiced____

(Give dates)

____

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New York State Journal of Medicine

Volume 81/Part II

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1981

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Classification codes

CN = Contemporary Nutrition
CNT = Clinical Note
CPC = Clinicopathologic Conferences
CR = Case Reports
DI = Drug Information
ED = Editorials
GER = Geriatrics
HIST = History of Medicine
HYP = Hypertension
ID = Infectious Diseases
IHN = Interesting Historical Notes
LE = Letters to the Editor
PH = Public Health News
RPC = Correlation Conferences in Radiology and Pathology
SH = School Health
SPEC = What's New in Specialties?

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